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POPULATION TRENDS AND POLICIES

A Study in Australian and World Demography

By

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PREFACE

POPULATION studies in Australia have tended to concentrate upon two aspects: the statistical analysis of fertility trends, and immigration. There has been lacking a study which analysed the economic and social consequences of trends and assessed their significance in the formulation of policy. It is this gap which this work attempts to fill. In addition it aims to bring to the subject a comparative and historical approach without which I consider we cannot understand the full meaning of the revolution that has occurred in Australian fertility patterns.

In other words, this work is designed to provide a general text which can be used as a basis for the discussion of Australian population questions. It is not a handbook of the latest statistical information. I do not consider that the continued rise of reproduction rates in Australia and many other Western countries in the immediate post-war years has invalidated the thesis that the small family system will remain the most significant demographic factor in the measurable future. Nor have recent reproductive trends lessened the need for a re-orientation of social-service policies in the interests of the family, whether the end to be served is the welfare of parents and children or the survival of the nation. Considerable changes have also occurred in the population policies of several countries since the manuscript of this book was written. For example, Sweden has introduced cash family allowances, and the French allowances have been increased repeatedly in the past two years to maintain their ratio to the level of wages. But generally the principles behind these policies have remained unaltered, and it is the assumptions upon which they are based rather than changes in detail with which this work is concerned.

The publication of this book has been greatly expedited by the action of colleagues at the University of Sydney, who virtually assumed control after my departure for London late in 1947. My special thanks are due to Mr. J. A. La Nauze and Mr. J. A. Cardno, who read the proofs, and also to Mr. La Nauze for preparing the index. I should also like to place on record my appreciation of

the criticisms offered by the members of the Sydney University Research Committee (Social Science Research Grant), to whom this manuscript was submitted, and of the decision of that Committee to sponsor its publication. Without this assistance the book could not have appeared.

W. D. BORRIE.

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INTRODUCTION

In recent years the Australian people have been constantly reminded by political, commercial and religious leaders of the existence of a population "problem." With few exceptions the problem has been diagnosed as a lack of numbers. More Australians are wanted, urgently. The reason for this interpretation of the population problem is not hard to find. Australia has been threatened with invasion, an invasion, moreover, by one of those Asiatic races whom Australia has persistently excluded, for economic if not for racial reasons. Indeed the threat of invasion by the Japanese in 1941-42 strengthened the belief of many that Australia must continue to exclude the Asiatic peoples; and, they argue, the obvious way to justify this "White Australia" policy to the world is to show that Australian resources can and will be fully developed by white people.

From this state of mind it is a short step to the cry that "We must Populate or Perish." Australians have been reminded of this fact with considerable persistence since the war of 1914-1918, when Mr. Bruce's vision of an Australia with one hundred million white people, and with resources sufficient to absorb Britain's unemployed in five years, was but a reflection of the unbounded optimism of British opinion on the subject of the future population of the white British Empire. Those were the days when a solution to the economic and international problems of both Australia and the Empire as a whole was sought, first, by a grand plan for a redistribution of people to develop the resources of the Empire, and, second, by a vast increase in the numbers of Britishers throughout the world. Mr. Amery pictured a world with three hundred million white British inhabitants, and Mr. Churchill considered that with "continued persistency and perseverance . . . a revolution might be effected in the balance of population (in Britain and the Dominions) within a century."[1] In short, the Imperial statesmen who had seen the Empire escape destruction during the bitter world struggle of 1914-1918 were looking forward with confidence to a policy of numerical expansion and continued economic prosperity.

[1] See W. K. Hancock, *Survey of British Commonwealth Affairs*, Vol. II (London, 1940), p. 133. Also *British Parliamentary Papers* (P.P.), Cmd. 1804 (1923), p. 25.

During these years of optimism, the Empire's leaders who were planning the redistribution of the Empire's human resources gave little attention to the warnings of experts during the preceding two decades concerning the British birth rate. As early as 1911, the Imperial Conference which met in London had been reminded by a British representative that the Dominions could no longer think of Britain as an inexhaustible reservoir. They could have the overflow of her people; but they "must not empty the tank." This warning was also to run through the whole proceedings of the Dominions' Royal Commission between 1913 and 1917, but the warning was not heeded in the post-war years. The result was the elaborate post-war schemes for Empire Settlement, which failed primarily because they had no foundation of demographic or economic reality. The ideas of a British Empire of three hundred million white people, and of Australia's resources providing a permanent cure for Britain's unemployment problem, were unrealistic in the extreme, however noble in conception. When they were laying their plans, those of lofty vision had in mind rather the nineteenth century, when Britain provided some eighteen million immigrants for the lands of the New World, than the post-war world of limited population growth and economic instability.

It is, of course, very easy to be wise after the event. Imperial statesmen and others planning the new world after 1918 may be forgiven for not anticipating economic developments. They may even be forgiven for allowing themselves to be so much influenced by an era of imperial expansion wherein seemed to lie the secret of economic and social stability, at least for those who governed. But no pardon is due for the sin of omission in the form of a complete disregard of the warnings issued by almost every official committee on migration since 1890.

Herein lies the moral. Those planning high policy frequently tend to be emotionally influenced by what they consider to have been an ideal past, instead of accepting the changes revealed by an analysis of current events. Certainly this was true of Australian and British thought after the war of 1914-1918 on the subject of population and migration; and even though few now believe in the fantasy of teeming millions of Australian and British people, it is still true of much of the thinking to-day. Mr. Bruce's estimate of a hundred million people for Australia has been reduced to the apparently modest figure of 20 millions. Political leaders of all shades have laid down approximately this figure as the goal that must be reached if Australia is not to perish as a free nation. In

1943 Mr. Menzies, for example, declared that Australia must double its population in twenty years; Mr. Curtin stated that it would be no improper use of bank credit to provide the means of doubling or even trebling Australia's population; and Mr. Forde and Mr. Hughes frequently warned Australians during the war of 1939-45, of the perils with which they would be faced if immediate steps were not taken to populate this vast island continent.

The authors of these estimates were no doubt aware of the low birth rate in Britain and other European countries; but many adherents of the twenty million creed have been encouraged to look to Britain for immigrants because of a conviction among some British leaders themselves that the parent country still has an obligation to fill the vast open spaces of the Empire. In 1943, for example, Lord Nathan, displaying an accurate knowledge of the demographic position of Britain, but some misunderstanding of the economic trends of the Dominions, declared that Britain must increase her birth rate to enable her to discharge her obligation of peopling the empty spaces of the Dominions and the colonies.[2] Similarly, a former Governor-General of New Zealand declared in 1937 that "the crying need of New Zealand is British capital, brains and experience."[3] Most leaders in all the Dominions, including New Zealand, will hotly repudiate any implication that Britain should feel an obligation to improve the quality of the Dominion populations; but many are still reluctant to admit that Britain's rôle as an emigrant country is drawing to a close. The recent flood of applications at Australia House for passages to Australia is tending to strengthen the belief that Britain still has people to spare. The emigration of some thousands of these people may be of advantage to both Australia and Britain, but it should be remembered that the same urge to vacate Britain occurred after 1918. Every improvement in Britain's export trade and in the import of foodstuffs will weaken the urge to move. The demographic position of Britain is such that she cannot for any long period be an exporter of both goods and people. People will be available for export only if Britain suffers an economic collapse.

Before any hasty conclusions are drawn from the rush of applications being received at Australia House, the warning of the British Oversea Settlement Board in 1938, that the Dominions would have to seek their immigrants beyond the bounds of Empire, should be

[2] Lords' *Debates*, Vol. 127, No. 68 (1943), p. 903.

[3] The London *Times*, Oct. 16, 1937, *Report* of the Third Empire and Migration Development Conference.

remembered. Also, the lack of any serious discussion on the subject of migration at the meeting of the British Commonwealth's Prime Ministers in London in 1944 should be noted. This, and the blunt statement of Mr. Churchill in March, 1945, to the effect that Britain had no large reserve of manpower to spare, suggest an increasing sense of realism in official circles in Britain. Further, it is significant that the present Labour Government is preparing plans to secure immigrants from the displaced persons of Europe.

So long as there is a strong section of opinion in Australia which is obsessed with the idea that the population "problem" is fundamentally a quantitative one of numbers, there will be a danger that governments will be forced into policies as unrealistic as those which followed the last war. It is conceivable that by crying that we must have twenty million people or perish, before we are sure that there is a reasonable chance of reaching that goal, we may be heading for disaster. For in our endeavours to populate we may be aiming at a fantasy, and we may so pervert our outlook that we will end by chasing the shadow of security and lose the substance of it.

Further, those who adhere to the quantitative line of argument must realize that their plans for the introduction of large numbers of immigrants will have to be considered in relation to the demographic revolution which a major section of the western world has experienced during this century. Is there any rationality in the view that Britain, or any other country threatened with a stationary or declining population, will release its dwindling resources of manpower to people Australia? We cannot have it both ways. If Australia must have a greatly expanded population, be it for reasons of security or for the full utilization of its resources, that portion of the increase which cannot be supplied by the fertility of the nation will have to be sought mainly from areas of high fertility, such as Southern and Eastern Europe; and the assimilation of people from these lands will require a change in social attitudes on the part of Australians, as well as the careful selection and training of the migrants.

It is equally unrealistic, however, to think that immigration can provide a permanent cure for the declining fertility of the Australian-born population. In the past the population "problem" of Australia has been synonymous with immigration; but now that Australia has an age and sex composition favourable to fertility, the major part of the country's increase, in the long term, must come from the balance of births over deaths. So, again, if Australia must increase its population, the first problem is to raise

fertility to a level which will either bring about an increase in each generation of parents, or at least ensure their replacement. Immigrants will not provide a permanent increase to the population so long as they bring with them, or adopt, a fertility pattern below replacement level; and so long as existing fertility ratios are maintained the assumption that any immigrants that may be gleaned from Northern Europe will not leave a numerous progeny of young Australians is justified.

Australia's "problem" of population, then, becomes a question of fertility rather than of immigration; but again let us not assume that by popularising the cry, "We must Populate or Perish," people can be persuaded to propagate. People do not multiply at the behest of any government or propagandist group, even although they may be aware that their country is in danger of perishing through lack of numbers. Patriotism does not extend thus far. The decline in the fertility of western countries which have developed highly industrialized and urbanized economic and social structures, and the indications by 1940 of the beginnings of a similar trend in Japan, an Asiatic and non-Christian country, suggest a correlation between economic and social development and population movements. If this hypothesis can be verified, we will have a basis for the consideration of a policy which may change fertility patterns.

It may be, however, that a large increase in population is impracticable in Western society as we know it, and as we see it developing, and that we have to face an economic and social revolution if we wish even to avoid gradual extinction through inadequate fertility. That question knows no answer yet; but at least we can now study much more closely than at any earlier period in the world's history the relation between economic and social change and human behaviour. A mass of statistical evidence is now available by which we can test *a priori* conclusions. The science of demography has increased our understanding of the nature of population movements, and lends support to the view that periods of rapid population growth have been comparatively rare in the history of man. The era of expansion among Western countries that accompanied the industrial changes of the nineteenth century was probably unique in its rapidity and extent. It was the result of the application of science to man's material environment. Improvements in sanitation, medical services, food production and housing brought death rates to low levels which were not thought possible by the Malthusians. Demography also reveals that the next stage of population development in Western countries

was a reduction in the size of the individual family. A decrease from the late Victorian levels was to be expected, for their maintenance for a long period would lead to a bee-hive world; but among many countries, including Australia, the size of the family had been reduced by 1939 to a figure which, if maintained, would lead to an actual decrease in numbers. Further, the war-time and immediate post-war rise in birth rates has not provided clear evidence that the pre-war family pattern has been changed. The real question which faces Western countries is no longer how to provide land and food for rapidly expanding numbers, but how to prevent extinction. Western countries, it appears, have not yet attained a social structure which is acceptable to the majority of their peoples and yet capable of biological survival. The problem is how to ensure survival without curtailing the fundamental liberties of the people. Policies based on compulsion have been tried, and found wanting, since the days of Augustan Rome. But these policies have been only palliatives. They have not sought the cause of an inadequate fertility in social and economic maladjustments. They have not been built into the social structure; rather have they been imposed upon it.

The chapters which follow in this book constitute an endeavour to study the implications for Australia of the revolutionary changes that have occurred, and are occurring, in the world population; and to consider what alterations, if any, may be necessary to our economic and social organization if we are to establish a community capable of biological survival.

Part I provides a broad analysis of world trends with the object of showing that the era of numerical expansion, which began in the Western World about the middle of the eighteenth century, is drawing to a close; and that many Eastern, non-white countries are showing signs of that restless energy which gave birth to the industrial development and population growth of the West more than a century ago. This is not the place for a philosophical discourse on free will and determinism; but the student of demography finds it hard to escape the conclusion that over the next century the race for population growth will go to the East, whatever the West may do about it. The task of the West, including Australia, is to consolidate what has already been won, and not to follow the chimera of a demographic era that is no more.

Part II provides a study in greater detail of demographic trends within Australia. When these trends are studied against the background of Western development we realize that we have here a microcosm of events in the Western World as a whole; and because

this is so we may learn much from the pro-natalist policies which have been instituted in the twentieth century by governments which have been concerned about the consequences of fertility decline.

But before policy measures are discussed, it is necessary to consider why a pro-natalist policy may be necessary. So in Part III some of the economic and social consequences that may follow from a continued decline in fertility are discussed.

Part IV provides an analysis of some of the contemporary population policies that have been instituted with the object of checking fertility decline. These policies provide interesting contrasts in techniques as well as in aims, and a study of them should enable us to sift at least some of the grain from the chaff, and to consider what measures, if introduced in Australia, would pay demographic dividends without the unnecessary wastage of public money. The final chapter of this section, therefore, attempts to outline the principles of a pro-natalist policy which would be politically and socially feasible in Australia, with the object of relating such a policy to recent and current social-service development.

The population expansionist may at this point—if he has persisted thus far—begin to tremble for the effect upon "White Australia" of the policy thus outlined, so an attempt is made in Part V to anticipate his criticisms by considering the international implications of the central theme that rapid population expansion through high fertility is no longer feasible for Australia and other Western countries. If Australia must double or treble its population it will have to rely *in the short term* upon immigration, not the birth rate. A detailed treatment of the new problems that are arising in regard to immigration would require another book; and in the conclusion to this work we can only consider, in broad outline, some of the issues that must now be faced because of the revolutionary changes that are occurring in the balance of the world's population. The final chapter, indeed, is meant to be an exercise in realism. It is not meant to discourage the expansionist, or to undermine the optimism of Australians in the possibilities of their country: it is merely a warning that the age has passed when they can get what they want, and that they have now to take what they can get.

With few exceptions, the statistical material provided in this work does not attempt to go beyond 1940.[4] The discussion of policy

[4] In some sections, especially that dealing with differential fertility, the analysis frequently cannot be carried beyond 1933, the date of the last census before June, 1947.

in later chapters is therefore based essentially upon pre-war developments. This is deliberate, because war-time statistics reflect an abnormal demographic situation arising from the war-time boom in marriages and first-born children. Moreover, there was no clear evidence by 1943, the latest year for which accurate figures are available, that the war had reversed the pre-war trends in fertility. A further conscious omission from this book is a treatment of mortality, for it is felt that while a reduction of mortality —and particularly of the infant deaths among the lower income groups—is important, this aspect is of less significance in the modern demographic scene than the force of life, or reproduction.

PART I

THE DEMOGRAPHIC REVOLUTION

CHAPTER I

A REVIEW OF WORLD TRENDS—I. THE WEST

THE active participation of Australia in two World Wars which had their origin in Western Europe, and the recent threat of invasion by an Asiatic power, have forced Australians to the realization that they live in a country which has close economic and cultural affiliations with the Western world, but which is also an appendage of the Asiatic mainland. These two factors are helping to drive Australia forward into the field of international politics. Australia's security and economic well-being are now inextricably bound up with events in both the eastern and western sections of the world. Indeed there are few questions of national policy that can be discussed without reference to the world at large, and demography is not one of them. The end of a century of rapid population increase in a great part of the Western world, and the tendency among Asiatic countries towards a greatly accelerated rate of growth, are changing the whole numerical balance of the world's population and creating new international problems.

An examination of the trends of world population during the past two centuries enables us to estimate with some accuracy the real nature of Australia's population problem, as well as to indicate the nature of the broader problems now facing the white peoples. Further, a study of past trends in Western countries also enables us to gain a clearer picture of the probable future trends among the coloured sections of the world.

If we consider the population of the world as a whole, we find that the rate of increase has been rising steadily since approximately the middle of the seventeenth century. It appears that during the century after 1650 the rate of increase of the world's population was approximately 0.3 per cent. per year, and that this was much above the average for any earlier period. Estimates suggest that the rate between 1750 and 1850 was at least fifty per cent. above that of the previous century.[1] The rate of increase of the world's

[1] The Estimates of world population quoted in this chapter are from A. M. Carr Saunders, *World Population*, Oxford, 1936, Chs. 2 and 3, and from Kingsley Davis, "World Demographic Transition," in *The Annals of the American Academy of Political and Social Science*, 237, (1945), pp. 1-11.

population began to rise sharply after 1750, and has continued to increase until the present time, the average annual rate in the first four decades of the present century being as high as 0.75 per cent. —a figure sufficient to double the world's population every 92 years.

TABLE I

ESTIMATED RATE OF GROWTH OF WORLD POPULATION[2]

	Population (millions)	Annual Per Cent. Growth During Preceding Period
1650	545	—
1750	728	0.29
1800	906	0.44
1850	1,171	0.51
1900	1,608	0.63
1940	2,171	0.75

TABLE II

ESTIMATE OF POPULATION OF THE WORLD 1650-1940[3]

	Millions					Percentage Distribution				
	1650	1750	1850	1900	1940	1650	1750	1850	1900	1940
Europe	100	140	266	401	572	18·3	19·2	22·7	24·9	26·3
North America	1	1	26	81	143	0·2	0·1	2·3	5·1	6·5
Central and S. America	12	11	33	63	132	2·2	1·5	2·8	3·9	6·1
Oceania	2	2	2	6	11	0·4	0·3	0·2	0·4	0·5
Africa	100	95	95	120	151	18·3	13·1	8·1	7·4	7·0
Asia	330	479	749	937	1162	60·6	65·8	63·9	58·3	53·6
World Total	545	728	1171	1608	2171	100	100	100	100	100

The major part of the increase in the world's population has derived from the expansion of the white peoples. In the European zone this expansion has been viewed at times with optimism and at other times with pessimism. From about the time of the Stuart Restoration in England, of Colbert in France, and of the Peace of Westphalia in Germany, the doctrine that a great and increasing population is desirable was widely accepted. Western Europe was still recovering from the devastation of the Thirty Years' War, which had reduced population by more than a half in some areas,[4] and in addition the intense rivalry amongst nations for political and commercial supremacy encouraged the acceptance of the view

[2] K. Davis, in *Annals*, op. cit., p. 3.

[3] Figures: 1650-1900 from A. M. Carr Saunders, *op. cit.*, p. 42: 1940 calculated from tables in F. W. Notestein et al., *The Future Population of Europe and the Soviet Union*, Geneva, 1944, p. 56; and W. S. Thompson, *Population Problems*, New York, 1942 (3rd ed.), p. 255.

[4] It is estimated that the war reduced the population of the German Empire from 16 to less than 6 millions.

that increased numbers were the essential concomitant of power. The idea of numerical expansion was an essential part of the mercantile theory, and it was not until the French Physiocrats and other writers, such as Benjamin Franklin, drew attention to the possible relation between food supplies and available land on the one hand, and the number of people on the other, that the soundness of the mercantilist views was questioned.[5] It was left to Thomas Malthus, with the publication of the first edition of his Essay in 1798, to administer the *coup de grace* to the optimism of the earlier eighteenth century, and both in England and upon the continent the view became widely accepted that some form of control of human fecundity was necessary if mankind was to escape the pressure of numbers upon available resources.

By the time Malthus had published the last edition of his Essay on Population he was in a more optimistic frame of mind than many of his contemporaries, for he observed that the evils resulting from the principle of population had rather diminished than increased, and that the future prospects regarding the further mitigation of these evils were not entirely disheartening.[6] Others, who lived after Malthus to witness the advances in science and technology which, for a time at least, removed the positive checks (i.e., famine and disease) to population growth and brought improved standards of living to increasing aggregations of people, cast Malthus aside altogether and reverted to an optimistic view, more akin to that held by the earlier mercantilists. By 1870 the evil of overpopulation which Malthus had disclosed had been put out of sight and out of mind in England. Population increase was again accepted as an essential part of national progress and moral integrity. It was no longer Malthus who was followed, but the Vicar of Wakefield, who "was ever of opinion that the honest man who married and brought up a large family did more service than he who continued single and only talked of population."

Even yet, our Victorian forebears are frequently quoted before the modern parents of the birth-control generation as paragons of virtue who had a fine sense of their responsibility to the nation. We who live in the Dominions of the British Commonwealth may have good reason to be thankful for the fortitude of the Victorian women of Britain who bore their numerous progeny without obvious complaint, and who helped thereby to lay the foundations

[5] See C. E. Strangeland, *Pre-Malthusian Doctrines of Population*, New York, 1904, for a history of population theory, particularly Chapters III to IX.

[6] T. R. Malthus, *An Essay on Population*, Everyman's Library, Nos. 692-693, vol. 2, p. 262.

of a mighty Empire. But those women were conceiving no more frequently than their forebears. It was the fortune—or the misfortune, some no doubt thought—of British women of the early nineteenth century that they lived at a time when the advances in science and a vast increase in the productivity of the soil were keeping alive an increasing number of the children they conceived; and it was not until those same material advances, and the increasing literacy that accompanied them, encouraged women to emancipate themselves from the Victorian yoke and to ask the reason why they should devote their lives to reproducing, that they realized that they had been the victims of circumstance. In effect, it took western man more than a century after the removal of the positive checks of famine and disease of which Malthus spoke to find alternative effective means of the control of human fecundity.

The rising rates of increase in white countries during much of the nineteenth century were fundamentally the result of declining mortality, and not of increased fertility. Indeed in some areas of Western Europe a decline in fertility had become apparent before the nineteenth century. In Sweden, for example, the birth rate of 35.7 per 1,000 of population recorded in 1751-60 was never again equalled,[7] although the rate remained above thirty until 1870. In the case of France a downward trend was in evidence from about 1800. Here the birth rate had dropped below 30 per 1,000 in 1830, and continued on its downward course for the remainder of the century. In no fewer than eleven of the sixty-four years between 1850 and 1913 deaths exceeded births,[8] and the country which had enjoyed demographic hegemony in Europe in the eighteenth century was outstripped by her rival, Germany. France is the important exception among Western European nations in the nineteenth century, and the early decline in her birth rate was attributed by French demographers of the nineteenth century to the instability in the social structure of the country emanating from the Revolutionary Wars, the Civil Code which required parents to bequeath at least a specified proportion of their property to each child, and French mores and folk ways which had long emphasized the advantages of the small family.[9]

In other Western European countries the birth rate was sustained above 30 per 1,000 of population until the last quarter of the nineteenth century, and in the cases of Germany and Holland until

[7] K. Davis, in *Annals, op. cit.*, p. 4.
[8] J. J. Spengler, *France Faces Depopulation*, Duke U.P., Durham (N. Carolina), 1938, p. 41 et seq.
[9] *Ibid*, pp. 146-168.

the opening of the twentieth century. There were fluctuations in the rates, but never any clear sign of prolonged decline. Thus, the "Hungry Forties" appear to have depressed the birth rate of England and Wales slightly to approximately 31, but the economic prosperity prevailing between 1850 and 1870 restored it again to 35 per 1,000. With the exception of France, the birth rate was the stable element in the demographic situation of Western Europe before 1870.

The unstable element was the death rate. In England and Wales the birth and death rates became clearly divided about 1750 and from then until 1880 the gap between births and deaths widened. For a time, between 1810 and 1850, when the industrial developments in England caused a rapid influx of people into towns that were inadequately sewered and ill-watered, the fall in the death rate was checked, but thereafter it continued its decline, and the pace quickened after 1870, by which time the Englishman lived in an environment which, although wretched enough in many of its aspects, no longer gave rise to the dread killing diseases of the earlier years of the century. The average expectation of life was approximately forty-four years, compared with only thirty at the opening of the century. The death rates of the Scandinavian countries followed a course not dissimilar to that of England. In other Western European countries the period of rapid decline came later, the years 1888-92 indicating the commencement of the period of this phase in Germany, Holland, France and Belgium. In Western Europe as a whole, and in the countries of the New World colonized by their emigrants, the decline in mortality was most marked in the half-century after 1880.

The opening of the last quarter of the nineteenth century was also accompanied by the first clear signs of a fall in birth rates, both in Western Europe and in Europe overseas. But until the end of the century this was no greater in the majority of Western European countries (again with the exception of France) than the decline in the death rate, with the result that the rate of increase remained above 1 per cent. per annum, and in some cases as high as 1.5 per cent. In Western Europe as a whole the gap between births and deaths was at its widest towards the end of the century. In some of the New World countries, such as Australia and New Zealand, the rate of natural increase was already slowing down, but this was due to changes in the age composition of their populations as well as to declining fertility.

While the white peoples of Western Europe and the New World

were widening the gap between fertility and mortality as the result of improved agricultural techniques both in Europe and in new lands overseas, by the application of power machinery to transport and manufacture and by improvements in public sanitation and medical science, the coloured section of the world continued to be held in thrall by the checks which Europe itself had suffered before the seventeenth century. The consequence was that the major part of the threefold increase in the world's population between 1650 and 1900 occurred in the European zone and in the New World. It is estimated that the proportion of the world's population in Asia dropped from 61 to 58 per cent., while the proportion in Europe increased from 18 to 25 per cent. In addition, the tremendous out-pouring of emigrants from Europe and a low mortality in the immigrant countries increased the population of the Americas from 13 millions in 1650 to 144 millions in 1900, and again to 275 millions in 1940. (See Table II.)

Industrialization had given the western peoples both the numbers and the command of resources to enable them to dominate the world. But the very factors which caused this amazing expansion of population of Western European peoples by the reduction of mortality were also causing a rapid reduction in fertility in many areas by the end of the nineteenth century. The social transition known as the Industrial Revolution was accompanied by an intimately related demographic transition. The more advanced the industrial progress, the more people turned from the eternal train of reproduction to devote their energies to other aspects of life—Western peoples as a whole began to introduce into their private lives what Professor Schumpeter has aptly called "a sort of inarticulate system of cost accounting."[10] The combination of improved material standards and advancing literacy made them realize that in a competitive, individualistic and urban society large families were an economic handicap. Moreover, reduced mortality meant that without some form of family control children would become an intolerable burden, and it was not long until the same scientific approach that had been applied to the limitation of the death rate was also applied to the limitation of the birth rate.

Among those western countries which had contributed most to the phenomenal increase in the world's population in the eighteenth and nineteenth centuries, this habit of birth control was so firmly entrenched by the early years of the twentieth century that it was apparent that the cycle of their growth was drawing to a close. In

[10] J. A. Schumpeter, *Capitalism, Socialism and Democracy*, London, 1943, p. 157.

the first decade of this century the rate of growth in Western Europe was still high (0.9 per cent. per annum) despite a large volume of emigration, but each succeeding decade witnessed a further reduction in this rate, until in recent years natural increase has been reduced to a fraction of the nineteenth century level. In England and Wales, for example, the birth rate dropped from 28.8 in 1898-1902 to 15.0 in 1935-39, but the death rate fell only from 17.4 to 12.0. Consequently during this latter period England and Wales experienced a natural increase of only 3.0 per 1,000 of population. A similar story can be told for other countries. Between 1898-1902 and 1935-39 the rate of natural increase fell from 14.9 to 7.5 in Germany, from 10.8 to 2.3 in Belgium, from 10.8 to 2.6 in Sweden, and from 14.8 to 11.6 in Holland. Overseas, in Australia the rate fell from 14.4 to 7.7, and in New Zealand from 15.7 to 9.8.[11] In other words, birth control had become an established habit among those countries enjoying high material standards of life, with the greater part of their peoples finding employment in other avenues than the tilling of the soil, and living in an environment more complex than that of the rustic village.

To an increasing extent, the modern parents of the Western world were no longer the victims of circumstance, but were consciously controlling the size of the family. With the exception of Ireland, where control has been exercised by restraint from early marriage, there has been no marked change in marriage habits. The control in the size of the completed family was the most significant factor in the fall in the birth rate after 1880. This was more important than any tendency towards an increased sterility of marriage, either voluntary or physiological, and it was the answer of modern western man to a demographic situation which was unique in the world's history. The control was not exercised simultaneously in all communities, or among the various classes of those communities. It began with those who were economically successful and was most rigidly applied in the cities, but all the evidence suggests that it is spreading to the less wealthy and to the rural areas. The severity with which this control was being applied before the outbreak of the Second World War suggests that Western Europe and its scions in the New World have almost completed their cycle of growth which began in the eighteenth century, and are establishing a new demographic balance in which the force of life will be no stronger, and perhaps weaker, than the force of death.

It is true that in many countries (with the notable exception of

[11] W. S. Thompson, *op. cit.*, p. 249.

Germany) the birth rate showed an upward trend during the war years following 1939, but there is no ground for believing that this is the beginning of an upward trend in fertility. The war-time increase was no more than a reflection of the abnormally high marriage rates prevailing in these years, and was essentially the result of first births, and not of an increase in the size of the completed family. In Australia, for example, a record marriage rate of 12 per 1,000 of population was reached in 1942, to be followed in 1943 by a record number of 149,500 births. But when the war-time boom in marriages has spent its force, the birth rate will fall again.

It seems safe to assume, both from a long-term study of the demographic controls of Western society, and from a short-term study of statistics during the war years, that the small-family habit will be as strongly entrenched in Western European countries in the post-war years as it was before 1939. Moreover, to the rational control of births must be added the effects of malnutrition and economic stagnation in many countries, and even the maintenance of pre-war birth rates in the future will require an increased reproductivity by the young parents of the next generation. The generation marrying and procreating in western countries in recent years had been depleted as the result of military losses among young parents in World War I. In addition the continuous decline in the birth rate during almost the whole period between the two wars will be reflected during the next twenty years in a decreasing number of young people reaching marriageable age. It is estimated, for example, that there will only be 4,147,000 females aged 15-30 in Great Britain in 1971, compared with an actual figure of 5,691,000 in 1937. In the older child-bearing group (30-45) the figures are 4,351,000 (1971) compared with 5,438,000 (1937).[12] The decline will be even more severe in European countries. Western Europe has inherited the legacy of a generation of declining fertility and the cumulative effect of two world wars, and this will be reflected in the future demographic structure.

The cycle of growth is not so far advanced in areas of Eastern and Southern Europe as it is in the West, but available evidence suggests that the former are running the same course as the latter has done. As the gap between births and deaths began to narrow in the West at the close of the nineteenth century, so it did in the East and South early in the twentieth century. In general the beginning of the rapid decline in the death and birth rates occurred

[12] *Current Trend of Population in Great Britain* (Cmd. 6358, 1942), p. 11. The forecast for 1971 does not include war casualties.

TABLE III

CRUDE BIRTH AND DEATH RATES AND REPRODUCTION RATES, SELECTED COUNTRIES (ANNUAL AVERAGE PER 1,000 OF POPULATION)

Region and Country	Birth Rate			Death Rate			Natural Increase			Reproduction Rates		
	1898 to 1902	1908 to 1912	1935 to 1939	1898 to 1902	1908 to 1912	1935 to 1939	1898 to 1902	1908 to 1912	1935 to 1939	Gross	Net	Year
N.W. & Central Europe												
England and Wales ..	28·8	25·2	15·0	17·4	14·2	12·0	11·4	11·0	3·0	0·90	0·81	1938
Scotland	29·7	26·6	17·7	18·0	15·6	13·2	11·7	11·0	4·5	1·07	0·91	1936
France	21·7	19·4	14·9	20·7	18·5	15·6	1·0	0·9	— 0·7	—	0·90	1939
Germany	35·7	30·0	19·3	20·8	16·9	11·9	14·9	13·1	7·5	—	0·98	1940
Austria	31·4	26·5	14·8	22·7	19·8	13·9	8·7	6·7	0·9	—	0·64	1935
Netherlands	31·9	28·7	20·3	17·1	13·8	8·7	14·8	14·9	11·6	1·26	1·16	1941
Switzerland	28·7	25·1	15·4	18·1	15·4	11·6	10·6	9·7	3·8	1·00	0·90	1941
Sweden	27·9	26·8	14·5	16·2	14·1	11·7	10·6	10·6	2·8	0·89	0·79	1940
Denmark	29·7	27·5	17·9	16·0	13·4	10·6	13·7	14·1	7·2	1·09	0·96	1941
Belgium	28·8	23·6	15·3	18·0	15·8	13·0	10·8	7·8	2·3	0·80	0·67	1941
S. & E. Europe												
Italy	33·3	32·7	23·2	22·6	20·8	13·8	10·7	11·9	9·3	1·43	1·13	1935-7
Poland	43·7	38·2	25·4(*)	25·0	21·2	14·0(*)	18·7	17·0	11·4(*)	1·50	1·11	1934
Roumania	39·2	41·5	30·2	26·4	25·6	19·6	19·6	15·9	10·6	2·16	1·40	1930-1
Yugoslavia	38·5	38·2	28·3	22·8	23·7	16·1	15·7	14·5	12·2	2·10	1·45	1930-2
U.S.S.R.	48·8	45·6(*)	44·2(*)	31·8	28·9(*)	20·8(*)	17·0	16·7(*)	23·4(*)	—	1·70	1926-8 (RSFSR)
Beyond Europe (White)												
U.S.A.	—	—	17·1	—	—	11·0	—	—	6·1	1·09	1·00	1940 (white)
Canada	20·2	26·1(*)	20·2	12·1	12·5(*)	9·7	8·1	13·6(*)	10·4	1·42	1·27	1940-2
Australia	27·1	27·2	17·3	12·7	10·7	9·6	14·4	16·5	7·7	1·16	1·06	1942
New Zealand	25·7	26·7	18·8	10·0	9·4	9·0	15·7	17·3	9·8	1·30	1·21	1942
Union of S. Africa (White)	—	31·8	24·8	—	10·3	9·8	—	21·5	15·0	—	1·30	1938
Chile	38·4	39·5	34·2	32·2	31·7	24·7	6·2	7·8	9·5	2·26	1·30	1930-2
Argentina	36·3(*)	37·3(*)	24·3	18·4(*)	17·2(*)	12·1	17·9(*)	20·1(*)	12·2	—	—	—
Asiatic and Pacific												
China	—	—	38·47(*)	—	—	—	—	—	—	—	—	—
India	37·4	38·3	34·7(*)	31·3	32·8	23·2(*)	6·1	5·5	11·5(*)	2·96	1·40	1930-1
Japan	32·1	33·8	29·7(*)	20·6	20·8	17·2(*)	11·5	13·0	12·5(*)	2·15	1·44	1937
Java and Madura ..	—	—	41·42(*)	—	—	—	—	—	—	—	—	—
Philippines	—	—	32·5(*)	—	—	—	—	—	—	—	—	—

(*) Poland 1935-38; Russia 1906-9, 1935-38; Canada 1911-13; Argentina 1899-1902, 1909-23; India 1935-38; Japan 1935-38; China 1931-35; Java and Madura 1931-35; Philippines 1936-40.

Figures from W. S. Thompson, *op. cit.*, pp. 152, 217, 249; and *Annals*, *op. cit.*, p. 115.

approximately two decades later in the latter areas than in the former. In the period 1935-39, Poland, Italy and Roumania had birth rates ranging from 23 to 30 per 1,000 of population, which was comparable to those of many Western European countries in 1908-12; but on the whole the downward trend of the birth rate in the twentieth century was steeper than that of the death rate. Thus in Roumania the rate of natural increase fell from 19.6 in 1898-1902 to 10.6 in 1935-39. A similar decline occurred over the same period in Poland (from 18.7 to 11.4) and in Italy (from 10.7 to 9.3).[13] As these countries were later than the West in the development of industrial techniques, so they have been later in their demographic transition. From the demographic aspect, as well as from the economic aspect, many of Eastern and Southern European countries appear to be passing through the stage experienced by Western Europe in the early years of the twentieth century. In most of them the life force, although diminishing, is still sufficient to produce a rate of increase of one per cent. and more per year.[14] If a reasonable level of prosperity can be achieved in Eastern Europe in the immediate future a considerable fall in mortality is to be expected. Before the recent war infant mortality rates were almost double, and the expectations of life almost ten years lower, than those of England and Wales. On the other hand, if Eastern Europe should lag economically, with a large peasantry still living near the subsistence level, mortality decline may be checked and even be reversed, but with the knowledge and habit of birth control already widely established there seems no good reason to assume that poverty will be accompanied by rising birth rates.

The main European zone in which there has been a clearly defined expansion in the rate of natural increase in the last twenty years is the U.S.S.R.[15] Despite war and revolution, the Russian population appears to have increased by almost 60 per cent. since 1900. Since 1900 the Russian birth rate has been one of the highest in the world. In Czarist Russia at the turn of the century the estimated birth rate of 48.8 was easily the highest recorded in the

[13] W. S. Thompson, *op. cit.*, pp. 152, 217, 249.

[14] Austria has elements common to both Eastern and Western Europe. The birth rate since 1908-12 has been comparable with that of England and Wales, having declined from 26.5 in 1908-12 to 14.8 in 1935-39, but the death rate has been similar to Italy (19.8 in 1908-12, and 13.9 in 1935-39), leaving a natural increase of only 6.7 in the earlier period and only 0.9 in the later.

[15] To treat U.S.S.R. as a single demographic unit is highly unsatisfactory, but accurate figures for separate Soviets (with the exception of the Ukraine) cannot be obtained. Further, as ecological factors have a considerable influence on fertility, there may be come justification for treating as one an area controlled by a single ideology.

world. Mortality was comparable with that of India, but even so the rate of natural increase of 1.7 per cent. was also one of the highest recorded. Before the Revolution there was a slight decline in both natality and mortality. After World War I, during the initial stages of the Communist regime, there was a sharp drop in the Russian birth rate, from 45 to about 30 per 1,000 of population.[16] The suppression of the Kulaks, the temporary deterioration in food supplies (especially for the rural population) and the facilities provided for divorce and abortion, all helped to reduce the Russian fertility between 1926 and 1933. But after that date the birth rate rose rapidly and mortality declined. Two factors were operating here: first, the improvement in economic conditions which increased the rate of marriage, and, second, the introduction of new decrees hampering divorce and abortion. In 1935-39 the recorded crude birth rate of 44 was one of the highest in the world, and the death rate had fallen to 20.8, giving a natural increase of 23.2, a rate which, if maintained, would double the population of the U.S.S.R. in less than half a century.

War-time Russian figures suggest that the birth rate has been maintained, and even increased between 1939 and 1945;[17] but, even if they are accurate, it cannot be concluded from these figures that the Soviet system provides the answer to the problem of declining fertility. First, as stressed earlier, most of the other belligerent countries also experienced an increasing birth rate during the war, and the Russian figures may be, as in the West, merely a reflection of high marriage rates. Second, as early as 1926-27, there was clear evidence that the fertility of the larger cities of the U.S.S.R. was conforming to the pattern of similar cities in Western Europe and the New World. Moscow and the four chief cities of the Ukraine, for example, had a fertility barely sufficient to maintain them at replacement level.[18] The fertility of these areas was only about 60 per cent. of that of rural areas. It is apparent that Russian cities participated in the recovery in fertility after 1935, but in 1938 the

[16] F. Lorimer, "Population Trends in the Orient," in *Foreign Affairs*, July, 1945, pp. 668-74.

[17] An Australian Associated Press report from Moscow, on November 21, 1945, stated that the Russian birth rate had increased 35 per cent. during the first nine months of 1945, compared with the same period in 1944, and that the increase was attributed largely to the system of granting monetary and other rewards to mothers of large families.

[18] Enid Charles, "Differential Fertility," in *The Sociological Review*, XXIX, No. 3 (1937), p. 243 et seq. In 1926-7 the gross reproduction rate of Moscow was 1.17, and of four cities of the Ukraine 1.01.

average birth rate for Moscow, Leningrad, Kiev and Kharkov was only 27.5 compared with 41.1 for the whole of Russia.[19]

These figures suggest strongly that birth control continued to be practised among the urbanized and more literate sections of the population of the Soviet Union. Further, the Edict of the Supreme Soviet of the U.S.S.R. of July 8, 1944, which decreed that mothers be given grants ranging from 400 to 500 roubles at the birth of the third child to 5,000 roubles at the birth of the eleventh and each successive child, and monthly allowances increasing from 50 roubles with the fourth, to 300 roubles with the eleventh,[20] suggests that the authorities are not convinced that the reported increase in the birth rate will be maintained. In addition it must be remembered that some 65 per cent. of the Russian people were still rural and isolated from the influence of industrial society in 1939. As industrialization proceeds, more of these people will be brought into contact with the type of influence that affected western countries in the late nineteenth century, and it is more likely that the Russian birth rate will approach that of the Russian cities, than that the reverse will occur.

It is most likely that Russia, having passed through the first phase of growth, i.e., rapidly declining mortality, is about to enter the second phase, i.e., a falling birth rate; but the gap between the force of life and the force of death will remain very wide for the rest of this century, and may even increase for a period. Unlike the powers of Western Europe, Russia has ample reserves both to restore the gaps torn by the recent war in her demographic structure, and to continue a rapid rate of growth.

When we turn to those areas of the New World, which have been colonized by Western Europeans, and which have attained an advanced stage of technical development and high standards of living, we find that they are closer in their demographic evolution to Western Europe than to either South Eastern Europe or the Soviet Union. On the whole a slightly higher fertility and a lower mortality give them the advantage over most countries of Western Europe, and they can expect a steady increase in their populations for another generation, even without the aid of immigration.

[19] A. Baykov, "Note on the Trend of Population and the Labour Problem of the U.S.S.R.," in *Journal of the Royal Statistical Society*, CVI, Part IV (1934), pp. 349-59.

[20] The Russian Family Policy will be examined more closely in Chapter XII. It is interesting to note here, however, that the grant of 5,000 roubles to mothers of eleven children exceeds the estimated average wage in the whole of the U.S.S.R. in 1940. See F. Lorimer, "Issues of Population Policy," in *The Annals, op cit.*, 237 (1945), p. 202, n.; and also his *The Population of the Soviet Union*, League of Nations, Geneva, 1946, pp. 179-80.

In 1935-39 Canada (20.2) and the European population of the Union of South Africa (24.8) still displayed birth rates much above those of any Western European countries except Holland. The high rate of Canada may be attributed in some measure to the high fertility of the French Canadians of Quebec, but recent researches have indicated that this fertility is falling in response to the spread of industrial techniques.[21] In the Union of South Africa the high rate of 1935-39 may be partly explained by the high fertility of the Africanders, and by the probable inclusion of many "coloured" births registered as "white."[22] In both countries, however, the size of the family is falling, and the low fertility of the urban areas suggests that they are advancing along the last stage of the cycle of growth, i.e., the closing of the gap between fertility and mortality.

By 1935-1939 the United States of America (white) had a rate of natural increase of only 6.1 per 1,000 of population, and in both birth rates and death rates resembled Western Europe. Because of inadequacy of U.S. vital statistics before 1912 any long-term comparison cannot be made between the United States of America and the European zone, but a contemporary study of differentials in fertility reveals that the trend of the completed fertility is downward towards the patterns already prevailing in the large cities. The rapid increase in the birth rate since 1939 does not provide evidence of a contrary trend, for it is due almost entirely to the large proportion of first and second births which followed the abnormal war-time increase in marriages.[23]

In Australia and New Zealand the birth rate fell to a lower level than in the other Dominions, and their rate of increase during the present century has been maintained largely by the rapidly falling death rate. They also are areas where the force of life has been controlled with increasing rigidity, until a stage in their demographic history has been attained when only an increased fertility can prevent a decline in numbers before the turn of the century. In both countries the war of 1939-45 was accompanied by an upward trend in the birth rate. In the case of Australia, as we shall see in subsequent chapters, this was due to the same factor as in the United States—an abnormally high marriage rate. The same factor

21 Enid Charles, "The Trend of Fertility in Prince Edward Island," in *Canadian Journal of Economics and Political Science*, VIII, No. 2 (1942), p. 216.

22 R. R. Kuczynski, "The White Population of the Empire," in *Sociological Review*, XXIX, No. 3 (1937), pp. 221-31.

23 P. M. Hauser, "Population and Vital Phenomena," in *The American Journal of Sociology*, XLVIII, No. 3 (1942), pp. 309-22; and H. F. Dorn, "The Potential Rate of Increase of the Population of the United States," *Ibid.*, XLVIII, No. 2 (1942), pp. 173-87.

helped to increase the New Zealand birth rate after 1939, although here the family benefits provided under the Social Security Act of 1938 may also have assisted. But in neither country has the rise in recent years been of sufficient magnitude to suggest that the small family custom, which has been taking root during the past half-century, has lost its hold.

In the New World zone it is in the Latin American countries alone that an expanding rate of population growth is to be expected. The Latin American countries are less advanced in their demographic cycle than their northern neighbours of the United States and Canada. Just as these latter resemble Western Europe in many aspects, so do the Latin American countries appear to resemble Eastern Europe.[24] High birth rates are matched by high death rates. In Argentina, however, a marked fall in both birth and death rates has occurred during the last two decades, and here, as in some Southern European countries, the habit of birth control appears to be spreading more rapidly than medical science. But in the majority of Latin American countries the expectation of life is still below fifty years of age, and a rapid rate of population increase will probably be in evidence for some time to come as a result of the increasing control of preventable diseases.

Thus we see that the demographic balance among the white peoples of the world has been changing during the past half-century. Western Europe has passed beyond the era of rapid expansion, and few countries in this zone have now a fertility sufficient to keep their populations at replacement level. (See Table III.) When measured in terms of reproduction rates, which provide a fertility ratio corrected for variations in age composition and mortality,[25] only one country of Western Europe (i.e., Holland) had a fertility in the immediate pre-war years sufficient to prevent a decline in numbers. In Eastern and Southern Europe fertility was still above replacement level in most areas, and notably so in Roumania and Yugoslavia, but the tendency towards declining mortality was being more than offset by the decline in fertility. Beyond Europe, the pre-war demographic situation in countries

[24] A precise analysis of the Latin American area is difficult because of the deficiencies in the vital statistics of many of these countries. See H. L. Dunn, et al., "The Demographic Status of South America," in *Annals, op. cit.*, pp. 22-33.

[25] The Female Gross Reproduction Rate measures the number of female children who will be born to a thousand women passing through the child-bearing years, 15-49, at given conditions of fertility. The Female Net Reproduction Rate is an estimate of the number of females who will replace these women in the next demographic generation at given conditions of mortality, and a net rate of unity represents a replacement rate. A fuller explanation of gross and net reproduction rates is contained in Chapter VI.

of high living standards was similar to Western rather than Eastern Europe, with reproduction rates slightly above, but tending towards replacement level.

With few exceptions these countries of Europe and of the New World appear to have followed, or to be following, a definite cycle of growth—first, falling mortality; second, falling fertility and a stabilizing of mortality; and finally a stabilizing of fertility at levels barely sufficient to prevent decline, and a tendency for mortality to rise owing to the increased average age of the population. It is not intended here to postulate this as another natural law of population, for there are many modifications to the general thesis. In France, for example, rational control of the size of the family ran parallel with the decline in mortality, and began more than a century ago; in Austria the rapid fall of the birth rate also preceded the decline in mortality; and in Argentina and some areas of Eastern Europe not so advanced in their demographic evolution as the West, birth control appears to be taking a hold more quickly than it did in the Western European countries. But the fact that a new demographic balance has been achieved in the West, and that Eastern European countries appear to be moving towards the same end, albeit by slightly different routes, enables us to get a clearer picture of the real nature of Australia's population problem, for we can see this problem, not as something peculiar to this country alone, but as a microcosm of the whole.

Unless a bee-hive world is desired, the slackening of the rate of growth which occurred in the West in the nineteenth century can only be viewed with pleasure. Just how fantastic a prolonged continuation of that rate of growth would be can be illustrated very simply by statistics. At the height of the Roman Empire Europe's population numbered about thirty millions. Had the rate of increase in Europe throughout the past 2,000 years been that of last century there would be 10 trillion people alive in Europe to-day, a figure 5,000 times that of the entire world.[26] A few simple arithmetical exercises therefore illustrate that even allowing for further revolutions by science in the supply of foodstuffs, a period of comparative stability in the world's population must be desired by all except those in whom the gregarious instinct is developed to an excessively abnormal degree.

[26] F. W. Notestein, et al., *op. cit.*, p. 46. Such frightening calculations are not new. Pareto, writing before the end of the century, also observed that if the world population in 0 A.D. had been 50 million and had increased constantly at a rate equal to that of Norway 1865-80, the world's population in 1891 would have been 489×10^{16}! (Quoted by J. J. Spengler, "Pareto on Population," in *Quarterly Journal of Economics*, LVII, Aug., 1944, p. 587.)

Viewed in this light, then, the population problem of the Western world as a whole becomes one of achieving balance, and not of increasing numbers. A group of American demographers have summarized the question succinctly by stating that "narrowly conceived the demographic problem of North-western and Central Europe is to find a new vital balance, to demonstrate that efficient human reproduction by means of low birth and death rates is compatible with survival," and that "broadly conceived the problem is that of adapting its institutions—social, economic and political—to function in the absence of growth to which they have been adjusted; to prove to the world that neither growth, nor size, but the efficient adaptation of people to resources is a prerequisite for human welfare and a rich culture."[27]

For the West to attempt more than this, to be panicked into expansionist pro-natalist policies, to try and match the rapid growth of countries moving through the first and second phases of their demographic evolution, would be to exacerbate the distrust between East and West. The task of the countries of the western world is rather to use their resources and experience to assist the economically backward countries to attain the vital balance which they themselves have so painlessly achieved. Moreover, because Australia is a western country near to the heart of the Asiatic land-mass, population trends in Asia must also be analysed before the full complexity of Australia's population problem can be understood. What has happened in the Western European zone over the past fifty or sixty years sets a limit to the white population Australia can reasonably expect to acquire during the remainder of the century, and the nature of the demographic changes in Asia during the next fifty or sixty years may be a determinant of our future as a free country. It is our concern with Asia which makes the Australian population problem so much more complex than that of Sweden, France, or even Britain.

[27] F. W. Notestein, et al., *op. cit.*, p. 181.

CHAPTER II

A REVIEW OF WORLD TRENDS—II. THE EAST[1]

ANY attempt to analyse in detail demographic trends in non-white countries must necessarily be defeated by the lack of available statistical material. The one possible exception in this regard is Japan, where the collection of statistical data in the twentieth century has been in advance of other Eastern countries, although less satisfactory than in many Western countries. Even the estimate of the total population of such a vast area as China varies by as much as 100 millions.[2] For these reasons the crude birth rates of Asiatic countries given in Table III cannot be accepted as exact figures.

Despite these serious weaknesses, however, it does appear safe to conclude that the life force in vast areas such as India and China is strong. Some restrictive forces do operate, such as the prevention of the remarriage of widows in many areas in India, and the widespread adherence to the principle of monogamous marriage. But against this, the illiteracy of the great mass of the people and the absence of any knowledge of scientific birth control which this implies, and the prevalence of indigenous customs which do not prevent early marriage, encourage high fertility, and it is likely that in many areas of the East the potential rate of propagation approaches the maximum of human fecundity. Without some powerful restrictive force the rate of population increase would tend to be extremely high in these circumstances.[3]

Where attempts have been made to analyse the factors restricting the rate of growth, such as in areas of British India, in small areas of China and in the Netherlands East Indies, it is found that the

[1] In this chapter only a brief summary of the main trends in Asiatic countries is given. The significance of these trends in the field of international relations, particularly as they affect Australia, is dealt with in the final chapter (Chapter XIV).

[2] See A. M. Carr Saunders, *op. cit.*, pp. 36-41, for a discussion of population estimates in China and other Asiatic countries.

[3] In parts of Central China where studies of vital phenomena have been made birth rates varying from 40 to 48 per 1,000 of population have been calculated. (See W. S. Thompson, *op. cit.*, pp. 70 and 256.) Similar rates have been observed in India, where K. Davis has calculated a rate of 45 for the decade 1931-41. (K. Davis, "Demographic Fact and Policy in India," in *Milbank Memorial Fund, Demographic Studies of Selected Areas of Rapid Growth*, New York, 1944, p. 41.)

force of death has at times been strong enough to match, and even to exceed, the force of life. Moreover, it is apparent that many of the Eastern countries are still living close to the Malthusian level of subsistence. The increase in the area under cultivation during the past century has not been great, and the techniques used for the production of food and clothing and other essentials of life have been comparatively static. These factors must have operated as powerful restraints upon population growth, just as they operated in Western countries before the middle of the eighteenth century. Further, during the past two hundred years or so the Asiatic people have not had the opportunities, or perhaps the desire, to emigrate to new lands, so that internal factors alone have provided the only important check to the pressure of numbers upon available resources.

It is probable that there have been times when population growth has been comparatively rapid. Professor Carr Saunders considers that there was an upward swing in the rate of growth in China in the latter half of the seventeenth and eighteenth centuries.[4] But an examination of living standards in Asia and of the incidence and extent of famine and disease over the past century do encourage the acceptance of the conclusion that such an upward swing was a temporary phenomenon, and that it never attained the proportions experienced by the European peoples during the nineteenth century. In short, it was never accompanied by that technical and scientific revolution which the West experienced, and which immeasurably increased the food supply and the quantity of other available resources.

How long the Asiatic peoples will continue to be held in check by the pressure of numbers against subsistence cannot be gauged with any accuracy; but by analysing trends in the Western world and applying their experience to the East, we may assume that if they undergo a scientific and technical revolution in the future, as the West has done in the past, the demographic consequences will probably be similar, because of the lag between falling mortality and the control of fertility. If the process can be reversed, and the techniques of birth control spread before advances in industrial techniques begin to lower the death rate, the East may run a different course from the West; but it is most improbable that

[4] A. M. Carr Saunders, *op. cit.*, p. 43. The increase in the population of China during this period (which, unlike the later increase in other Asiatic countries, was not the result of Western contacts with the East) was primarily due to the comparative peace and prosperity under the Manchu dynasty, which was established in 1644. In the eighteenth century in particular land settlement proceeded at a rapid pace.

this will occur, both because of what has already happened in many Eastern countries, and because the need for rational birth control cannot be felt until death control has emphasized the urgency of it, and until illiteracy is reduced. The nature of the demographic evolution of Eastern countries will depend more upon the nature of the industrial and scientific techniques they adopt than upon their culture, their religion or other non-material factors.

A study of the recent demographic history of Japan, the one Eastern country for which statistics are in any way adequate, supports this hypothesis. Many westerners are perturbed when they learn that the population of Japan proper increased from some 32 millions in 1850 to 73 millions in 1940, and that this figure may be raised to 100 millions by the end of the century. But the important fact to notice is that the determinants of growth in Japan since 1850 have been essentially the same as those experienced by Western countries during their industrialization. Bushido and Shintoism have been less important in Japan's demographic history than the adoption of western industrial techniques, improvements in health and sanitation and the growth of large cities. The Japanese have reacted to these material changes as did the Christian nations of the Western world. In the nineteenth century the rate of growth of the Japanese population was restrained to some extent by traditional practices. Abortion and infanticide were frequently encouraged in medieval Japan to keep the balance between rice and people, and when feudalism was abolished with the restoration of the Meiji in 1868 the legacy of family limitation thus inherited probably helped to keep some check on the birth rate.[5] The increase in the Japanese population of approximately 60 per cent. between 1870 and 1920 was smaller than that of England and Wales (67 per cent.) and Russia (72 per cent.) for the same period. After about 1920, the rate of growth began to quicken, but during the decade before 1940 both mortality and fertility showed a downward trend. (See Table III.)

No immediate substantial reduction is to be expected in the rate of increase of the Japanese population in the immediate future unless the restriction of economic activity is severe enough to lower standards of living and to limit the supply of foodstuffs. We will endeavour to show in a later chapter (Chapter XIV) that such a policy is to be deprecated on the grounds both of humanity and of

[5] Any exact estimate of natality and mortality trends in Japan before 1920 is extremely difficult because of the inadequacies of statistics. On this point see J. B. Taeuber and Edwin G. Beal, "The Dynamics of Population in Japan," in *Milbank Memorial Fund, op. cit.*, pp. 1-34.

the self-interest of the white peoples in the Pacific region. At the moment we merely wish to observe the nature of recent demographic trends in Japan and to indicate the probable future position if we assume that these trends are maintained.

In 1930 the rate of growth of the Japanese population of approximately 1.3 per cent. per annum was still above that experienced in most European countries other than the U.S.S.R., and if maintained in the future it will increase the population of Japan to almost 100 millions in a generation (i.e., approximately 30 years). Even if mortality and fertility decline in the immediate future in a manner similar to that experienced by Western European countries in the period between the two World Wars, the Japanese population will stand at 91 millions by 1965.[6] The relation between fertility and mortality will be determined in the future by the standards of living, and the extent of scientific and industrial progress which the Japanese people are permitted to attain, but it is probable that some reduction in fertility will be experienced, although in the short term this may be less substantial than the fall in mortality. Before the Second World War there was a definite decline in Japanese fertility, particularly after 1937 when the advertisement and sale of contraceptives were permitted by the Government. That decline appears to have been the by-product of urbanization, as in the West, and there is clear evidence of controlled fertility at this time in the vital statistics of Japanese cities with populations of 100,000 and over, in which over 25 per cent. of the Japanese people were already living before the war.[7]

The demographic history of Japan illustrates the point that "the existing civilization of the Orient is not fixed in the genes of the Asiatic races."[8] It will suffer mutations in other countries of Asia as it has in Japan if they follow the path of industrialization. By following that path Japan has passed through the first phase of the demographic cycle, and must be assisted in the interests of world peace to complete that cycle as the West has done. Other Asiatic countries have barely started that cycle of growth, but the war years have produced ample evidence that many of them are now preparing to apply the techniques of western civilization to their own spheres, and "to think that Asiatics can borrow and utilize the instrumentalities of the West without also borrowing its other features is to commit a sociological error."[9]

[6] J. B. Taeuber and Edwin G. Beal, "The Demographic Heritage of the Japanese Empire," in *Annals, op. cit.*, p. 68.

[7] J. B. Taeuber and Edwin G. Beal, in *Milbank Memorial Fund*, op. cit., p. 27.

[8] K. Davis, in *Annals, op. cit.*, p. 7.

[9] *Ibid*, p. 8.

What then will be the effect of contemporary plans of industrialization on areas like India and China?

In these countries demographers are faced with a distressing lack of evidence, but statistics are at least sufficient in some areas to permit them to observe broad general trends and to deny with some assurance the validity of the too popular theory that these peoples are multiplying like rabbits. The mere statement that India's population now totals 400 millions, or 1/5th of the world's total, and that the increase alone over the past decade has been 51 millions, or more than the total population of the United Kingdom, is staggering in itself; but when we analyse these figures and convert them to *rates* of growth we realize that another five million Indians each year merely indicates that the population is increasing at a rate comparable with that of Eastern Europe. Indeed, so far as statistics can be relied upon, it would seem that it was not until the 1920's that the average annual rate of increase of India exceeded 1 per cent.

The reason for the rapid increase in India's rate of growth since 1920 is almost certainly the easing of the Malthusian checks of famine and disease, and not any apparent increase in the birth rate. Measures to provide famine relief, the immense development of irrigation which waters about 20 per cent. of the total cultivated area of India, and the improvement of transport and communication, all helped to reduce the recorded mortality rate by about twenty per cent. between 1920 and 1940. But the wastage of life in India still remains appallingly high. Only 54 per cent. of each hundred male babies remains alive at the age of fifteen, compared with 93 in Australia, and half the people of India are dead before the age of thirty.[10]

Any expansion of the rate of growth of India's population will require an economic revolution designed to improve agricultural productivity and to raise the level of purchasing power of the masses of India.[11] But even if India can do no more than consolidate the gains already made, the present rate of increase will be sufficient to double the population in less than a century. The maintenance of that rate of growth will require the prevention of the recurrence of widespread famine, which has been a major factor controlling India's rate of growth in the past. However, irrespective of the manner in which industrial techniques may be applied in the future, any substantial decline in fertility cannot

[10] K. Davis, "The Population of India," in *The Far Eastern Survey* (Institute of Pacific Relations, New York), April 19, 1943, pp. 76-9.

[11] This aspect will be discussed more fully in Chapter XIV.

reasonably be anticipated. Westernization may raise the age of marriage, but this may be offset by the remission of the harsh penalties preventing the re-marriage of widows. The spread of birth control habits can only occur as religious barriers are broken down and as literacy spreads. In short, although industrialization may lower mortality, the lag between falling mortality and a declining fertility will probably take much longer than it did in Japan, or in Western countries.

If we assume that the rate of growth of the Indian people will continue in the future at the rate estimated between 1850 and 1933, the population will be as high as 750 million by the end of this century; and because of the volume of this increase rather than its rate the population problem of India is likely to be too vast to be solved by emigration alone; and, indeed, it is in the urgent interests of Australia that the need for emigration be reduced to the minimum.

What has been said of India probably holds also for China, but here our knowledge of the precise nature of demographic trends is even less satisfactory than for other Asiatic countries. The state of the Chinese social and economic structure would suggest, however, that the vast majority of the women of China's 400 million people are conceiving children almost to the limit of human fecundity, but that population growth is severely restricted by a mortality comparable to that prevailing in India fifty years ago. These conclusions are supported by information available from an area in the lower Yangtsee Valley, Hsaio Chi, which is the one zone in which a detailed demographic study has been made.[12]

In China, as in India, the rate of growth in the future will be largely determined by the effect upon mortality of advances in medical science, improved agricultural techniques, and the extent to which these improvements are accompanied by a general rise in purchasing power. In spite of the determination of many Chinese leaders to develop large-scale industrialization, the advances that can be made in this regard will depend upon the settlement of internal political disputes and the extent and nature of assistance which the Chinese Government and people receive from outside powers, such as the Soviet Union and the United States of America. In spite of the potentialities of China's resources, and the value of the return of Manchuria as a source of food supply, the improvement in mortality will probably be slower in China than in India. The latter country, as we have observed, has already received an

[12] F. Lorimer, in *Foreign Affairs*, *op. cit.*, p. 672 et seq.

impetus to its population growth as a result of its contacts with the Western world, but so far as we can gather this has not yet occurred in China, and the next two or three decades will rather determine the nature of demographic trends that will occur after that time than give any immediate stimulus to growth. If and when the stimulus does occur, it will derive from the control of mortality rather than from an increase in the birth rate, which has already been estimated at figures ranging from 38 to 47 per 1,000 of population. (Table III.) Yet it is only by the development of China's resources in a way that will add rapidly to China's 400 or 500 million people that any long-term solution to China's population problem can be found. (See Chapter XIV.)

Studies of population problems of Asia frequently fail to make any reference to the dependent areas of the South West Pacific, yet living there are more people than in the United States of America, and many of them have benefited sufficiently from their economic contacts with their western masters to set them on the path of demographic expansion. The significance of this fact should not be overlooked, particularly by Australia, because the majority of these territories are controlled by metropolitan powers which have either ceased to grow (e.g., Britain), or which are actually declining in numbers (e.g., France).

Despite the pressure of population on resources, the population of the Netherlands Indies has probably been increasing in recent years at the rate of 2.2 per cent. per annum[13]—a figure almost equal to that of the U.S.S.R. By 1930 it was apparent that the needs of the N.E.I. people could not be met by the productivity of the land already under cultivation, and the Dutch attempted to force the migration of people from the densely populated areas of Java and Madura to the thinly populated outer islands. But even the partial success of this scheme brought no relief, for it brought no change in the established cultural and social patterns. The birth rate has remained extremely high in the Netherlands Indies (Table III) and birth control does not appear to be practised to any appreciable extent. Unless immediate steps are taken to relieve population pressure and reduce fertility, by intensive industrialization and the spread of birth control knowledge, it is difficult to see how the Indonesians can reasonably be expected to resist the temptation to emigrate. If recent rates of growth are maintained the population of these territories will approach 110 millions by 1970, compared

[13] *Ibid*, p. 672. This figure can only be accepted as an approximation, although figures for N.E.I. are much more adequate than for China.

with approximately 8 millions in Australia, or only 80 million white people in the whole British Commonwealth of Nations.

Equally high annual average rates of increase of more than 2 per cent. have been recorded for Thailand, British Malaya, the Philippines and Formosa, the last being of particular interest as illustrative of a Chinese population showing a rapid rate of increase in a territory where there has been a rapid expansion of the areas in crop production and improvements in sanitation.[14] In none of these areas does there yet appear to be any indication of a decline in the birth rate.

It is of interest to note that in the dependent regions of South East Asia the administering powers have so far merely imposed upon these territories that part of their culture which reduces mortality, but they have failed to transfer that part (i.e., expanding literacy and the full enjoyment of the material benefits which may be derived from an industrial economy) out of which the rational control of fertility develops. Many of these areas are experiencing the first phase of growth (i.e., falling mortality), but the cycle has been arrested there.[15] One of two things can happen—either these people can be left to revert to subsistence agriculture and to the resultant scourges of famine and disease that will follow because their numbers have already been increased as a result of their contacts with the West; or they can be encouraged to seek more humane demographic controls. The latter course is the only one likely to reduce the possibility of their becoming material for a new political conflagration. But even assuming that only recent trends are maintained in the future, their rate of growth will be greater than that which is likely to be achieved by the white peoples of the Pacific zone, and consequently the numerical disparity between white and non-white will be further increased.

The extent to which the numerical balance of population will be loaded in the future in favour of the coloured section of the world, as against the white, is extremely difficult to gauge. But what has occurred in many countries of the West must restrict their capacity for growth in the next one or two generations. Western Europe has clearly ended its era of rapid expansion, and overseas countries peopled mainly by Western Europeans and enjoying high material standards of living appear to be following closely in the wake of their parent states. In Western Europe especially, a generation of declining fertility has depleted the

[14] *Ibid.*

[15] F. W. Notestein, "Problems of Policy in Relation to Areas of Heavy Population Pressure," *Milbank Memorial Fund, op. cit.*, p. 147.

number of young people who will be available in the near future for the rearing of families. Countries like the United States of America and Australia have to some extent augmented their populations in the child-bearing age groups by recent immigration, and in addition their fertility patterns have not fallen so low as those of Britain, France, Germany or the Scandinavian countries. But without an immediate and substantial rise in fertility the rate of natural increase in all these areas will be less rapid than formerly.

On the other hand, however, because of the comparatively high rates still prevailing, and likely to prevail, in the white countries of Eastern and Southern Europe and in the U.S.S.R., the growth of the white people as a whole may be as great in the near future as that of the coloured people as a whole, for most of these white areas have already overcome the first difficulty inhibiting rapid population growth, i.e., the control of large-scale famine and disease.[16] When we move from the south-eastern tip of Europe to the Near East, we approach areas in which the Malthusian checks still operate, despite a comparatively rapid rate of growth. It has been estimated that in years of normal health conditions, the natural increase in the Near East ranges between 12 and 17 per 1,000 of population, and that where health conditions have been improved by contact with European influences (e.g., Palestine) it is as high as 25 per 1,000.[17] In Egypt the population has doubled since 1882, and this increase has been due primarily to natural increase, and not to immigration. Of Egypt's 16 million people recorded in the census of 1937, 99 per cent. are crowded on the strip of fertile land bordering the Nile and its delta, and their density is higher than that of Belgium, the most thickly settled country of continental Europe.[18] The high gross reproduction rate of 3.1 is matched by a high mortality (the expectation of life at birth being only 30.2 years), but the net rate of increase prevailing in 1937 was still sufficient to increase the population by some 40 per cent. every generation.[19]

These Near Eastern regions indicate roughly the dividing line between those sections of the world in which advancing literacy is being accompanied by the spread of birth control knowledge, and

[16] This assumes that the command of resources amongst the European peoples is adequate to overcome within the next few years the dislocations caused by six years of war. The comparative success of medical science in preventing widespread disease in Europe in the immediate post-war period provides some grounds for optimism.

[17] E. Jurkat, "Prospects for Population Growth in the Near East," *Milbank Memorial Fund, op. cit.*, p. 89.

[18] C. V. Kiser, "The Demographic Position of Egypt," Ibid., pp. 97-101.

[19] *Ibid.*, p. 119.

those areas with a high proportion of illiteracy and fertility rates which are not consciously controlled. The only control these latter areas know are the periodic failure of subsistence rations and recurrent disease. These checks have been powerful enough in the past to keep the populations of most Eastern peoples from expanding as rapidly as in the West, but, as we have noticed, in many Eastern areas growth has already been stimulated by their contact with the West, and even if probable recent rates of growth are maintained in the future, their populations will expand more rapidly than those of Western Europe and many of the white countries of the New World.

The most important change that is likely to occur in the immediate future in the balance of the world's population is not in the white as opposed to the coloured section of the world, but rather in the Western white world as against the rest. To assume that for the next generation the main concern of the Western peoples will be a consolidation of the material gains of the last century does not appear to be unreasonable. The aim of these countries is to secure a high level of employment and to enjoy improved material living standards. Such policies may cause the demand for material benefits to expand more rapidly than incomes, and merely encourage all classes to move towards the set of social and cultural values previously adhered to by the more prosperous sections of western communities. If this occurs we may expect a continuation of the pre-war trends of fertility to approach that of the urban and bourgeois classes of Western society, classes which already had the lowest fertility during this century. Differentials in Russian fertility suggest that even the Soviet experiment of socialization has not provided immunity against this tendency.

Assuming, then, that trends in vital rates among white peoples during the next generation will represent orderly developments of those of the pre-war period, and that no major migration takes place during this period, we have the picture of a Europe numerically dominated by Russia by 1970. Projections based on these assumptions show that the Soviet population will total 251 millions in 1970, compared with 174 in 1940. Southern and Eastern Europe will also increase over the same period from 165 to 192 millions; but North-western and Central Europe will decline from 234 to 225 millions. The United States of America will almost certainly be the second largest political unit in the white world in 1970, with a population of approximately 151 millions, while the total population of South America may reach the 1940 figure for U.S.A., i.e.,

133 millions. Even the whole white population of the British Empire, estimated at 73 millions in 1936, will probably be little more than 80 millions by 1970,[20] and Australia and New Zealand may have to shoulder their responsibilities in the South Pacific with some 9 million people (See Table IV.)

Even more important than the projections of total populations is the change in the age structures of the various zones. In Europe any substantial increase in the volume of manpower (males aged 15-65) between 1940 and 1970 will be confined to Southern and Eastern Europe and to Soviet Russia, the percentage increase in the former being 41 and in the latter 71. Outside the Soviet Union, Germany (1937 boundaries) will still have the largest manpower pool in 1970, and Italy and Poland will both exceed the figures for the United Kingdom and France.[21] War casualties, which are not included in the above estimates, will change the details but not the general picture revealed by these projections. From the demographic aspect, then, the decline of the West seems certain, and when resources are added to numbers it is apparent that the balance of population and power in the white world is moving inexorably against the Western Europeans.

Projections for non-white countries must of necessity be much less satisfactory than those for white countries, because in many areas such basic data as the population by age groups and age specific mortality figures are not available; but assuming that the broad trends that appear to have occurred in recent decades will be continued in the near future, a considerable expansion in their numbers is to be expected. Moreover, in all these countries any improvement in mortality will increase their propensity for growth, for it will augment the numbers of persons living through the child-bearing age groups. None of these countries is faced with the prospect of declining numbers of potential parents, as are those of Western and Northern Europe.

Projections based on this assumption that recent trends will be continued are given in Table IV.

The potential numerical increase in Asiatic countries which is revealed in these projections is frequently the cause of deep concern among the white peoples of the Pacific zone. The fear has often been expressed in Australia that the teeming millions in India,

[20] cf. R. R. Kuczynski, in *Sociological Review, loc. cit.* Kuczynski estimated that if the net reproduction rate of the white section of the Empire remained constant at the 1937 level (0.9) the population of 72.5 millions would increase slowly until 1950 and thereafter decline.

[21] Notestein, et al., *op. cit.*, Ch. V.

TABLE IV

Population Projections: Selected Areas

Area	Populations, in millions 1940	1970
European Zone[22]		
The U.S.S.R.	174	251
All Europe (exclusive of U.S.S.R.)	399	417
N.W. and Central Europe	234	225
S. and E. Europe	165	192
Total Europe and U.S.S.R.	573	668
American Zone		
U.S.A.[23]	133	151
Canada[24]	11	15
Mexico	20	54[25]
Rest of N. America	20	
South America	92	133[25]
Total	276	353
Africa[26]	155	170
Asiatic Zone		
Japan[27]	73	88
India[28]	389	550
Chinese Empire[28]	400	500
Total	862	1,138
South West Pacific Zone (Non-White)[28]		
Burma	17	23
N.E.I.	72	110
French Indo China	24	33
British Malaya	6	10
Thailand	16	30
Philippines	16	27
Total	151	233
South Pacific Zone (White)		
Australia	7	8
New Zealand	2	3
Total	9	11

[22] F. W. Notestein, et. al., *op. cit.*, p. 57.

[23] W. S. Thompson, *op. cit.*, p. 282. Estimate A.

[24] W. B. Hurd, *Population Trends Underlying Potential Agricultural Development in Canada* (MS), p. 69.

[25] Rates of Increase for U.S.S.R. given by Notestein applied to these regions.

[26] Thompson, *op. cit.*, p. 255.

[27] *Ibid.*, p. 257.

[28] Estimates based on figures given by W. S. Thompson, "Population Forecasts for China and South East Asia," in *Annals*, *op. cit.*, p. 77. Thompson gives figures for 1940-1 and 1990, and the above estimates for 1970 are based on a constant rate of increase 1940-1990, approximating to the rate of growth in these areas in the last two or three decades.

China and other areas of the Pacific constitute in themselves a threat to the security and independence of this country, and that a rapidly increasing population is to be encouraged here as a counter to this threat. But a glance at the estimated white and coloured populations of the Pacific zone in 1940, and the projections for 1970, indicate immediately the futility of endeavouring to match the increase in Asia by any policy of white immigration and by pro-natalist measures.

The paucity of the white population of the Pacific area compared with the numbers of people in individual Asiatic countries is of less importance than the nature of the political and economic developments which have occurred and are occurring in areas like Japan, India and Indonesia. The mere fact that there are already 1,000 million Asiatic people, or that they are increasing in vast numbers, does not in itself constitute a threat to Australia. But when these vast populations are imbued with a determination to escape from their poverty and are developing a vigorous spirit of nationalism, the whole nature of the problem is changed. The pursuance of this aim must mean a weakening of the influence of the imperial powers in these countries and a further increase in their rate of growth. Moreover, as we stated earlier, the imperial powers who have hitherto exercised control in the dependent areas of Asia are those who now face an absolute decline in their own numbers, which may both weaken their capacity to defend these areas against internal revolt or aggression from without, and also set a limit to the reserves of manpower available for normal peace-time administration. Demographic factors have played their part in the withdrawal of the British from India and of the Dutch from Indonesia; and Indo-China may yet prove a strain too great for the dwindling population of France.

Questions such as these are of vital interest to Australia and add to the complexity of this country's population problem. Just as the cessation of the period of rapid growth in Western Europe and in Europe overseas must largely determine the nature of any realistic internal pro-natalist policy and white immigration policy, so the probable developments in the Asiatic countries in Australia's "Near North" necessitate a re-assessment of our non-white immigration legislation and a new approach to the whole field of international relations. The scientific and industrial revolution which occurred among Western nations during the past century gave them control of the majority of the world's known resources and at the same time set them on the path of numerical expansion.

For many of these nations this cycle of growth is drawing to a close. At the same time, however, the rates of growth in many non-white countries is gathering pace. This increased rate of growth may be interpreted as the end product of the imperialism practised by the Western Powers in the nineteenth century, as that policy reduced mortality as the result of improved medical services and the more efficient cultivation and distribution of foodstuffs, without supplying at the same time the basis of literacy essential for the rational control of fertility. But most non-white areas of the world are still maintaining a precarious balance between available resources and population. The threat of "overpopulation" inherent in this economic situation can be solved by reducing numbers, by an economic and technical revolution, or by a combination of both these measures. By virtue of her geographical position, Australia has a vital interest in the course of action which each major territory of Asia, both self-governing and colonial, pursues.

In the rest of this book we shall analyse Australian population questions against the background which has been briefly presented in these first two chapters. First let us consider the development of the Australian population, and examine the internal implications of recent trends.

PART II

AUSTRALIAN DEMOGRAPHY

CHAPTER III

THE DYNAMICS OF POPULATION GROWTH IN AUSTRALIA, 1788-1900

THE demographic history of Australia, from the foundation of the first settlement at Sydney Cove to the emergence of a federal Commonwealth, differs only in degree, and not in fundamentals, from that of Canada, South Africa or New Zealand. It is the chronicle of the inpouring of thousands of immigrants, the great majority of them from the "lower" and "middle" classes of the British Isles. The colonization of Australia was part of the phenomenal expansion of the British peoples to the Southern Hemisphere, which began after the loss of the American colonies in 1776, and which continued until the close of the nineteenth century. Australia's only claim to originality in the story of colonization lies in the connection of the eastern colonies before 1840, and of Western Australia after 1850, with the export of British convicts. Had nature presented a more attractive picture to the eyes of Sir Joseph Banks Australia might have escaped even this claim to originality and have passed the honour to South Africa.

An examination of the economic significance of the convict settlers in New South Wales would be irrelevant here. The political and administrative difficulties in connection with the first settlement and the business acumen of the officers of the military may have hindered progress for a time; but the transportation of felons from Britain did provide a nucleus strong enough to keep the settlement alive until Britain was freed from the burdens of the conflict with Napoleon. When Governor Macquarie left New South Wales in 1821 there were 30,000 pioneers in the colony. More than half of these were under or had served sentences, and only 1,300 had come as free migrants.[1] Socially the worst feature of this dependence on transportation was the extreme shortage of women, which rendered normal family life impossible for a great part of the community. The preponderance of males was a feature of all pioneering communities, but in New South Wales and Tasmania it was particularly marked as a result of the sex-composition of the transported settlers. Of the 130,000 convicts sent to

[1] B. Fitzpatrick, *British Imperialism and Australia 1783-1833*, London, 1939, p. 203.

the eastern colonies of Australia only about 16 per cent. were women,[2] and among the free immigrants males far outnumbered females.

Behind the facade of these statistics we see an abnormal social structure; but it was a structure which differed only in degree from that of the free pioneering communities. The serious dearth of women in the convict colonies led to the experiment of shipping special cargoes of single women, drawn mainly from the workhouses and charitable institutions of England, who were of a quality sufficient to cause the Sydney *Herald* to remark that they added pollution to a society of convicts.[3] Neither these nor the women settled in New South Wales by Caroline Chisholm were sufficient to redress the discrepancy between the sexes. Thousands of male settlers were still forced in this monogamous society to remain without that stabilizing influence of "God's police—wives and little children," as Mrs. Chisholm called them; and many who did marry were compelled to select wives below their social status, judged by current English standards.

The Australian women of the pre-gold days did not want for husbands. They married and bore offspring much as their British cousins did. Exact statistical evidence of their fertility during the early years of settlement is lacking, but there is no reason to suppose they were not as prolific as the women of England who, on the average, bore a child every two years between the ages of 20 and 40. Certainly the crude birth rate of Australia as a whole in the eighteen-sixties was appreciably above that of England and Wales (see Table VII), but the differences in the age composition of the two countries at this time would help to account for the higher colonial figure. In the early years of the colony, however, the fertility of these women, high as it was, was a less important factor in growth than the influx of immigrants.

After the close of the Napoleonic Wars emigrants began to move overseas from the British Isles in increasing numbers. In 1815 only 2,081 emigrants left those shores compared with 14,891 in 1825.[4] Until this date the Australian colonies were absorbing only a fraction of the outflow from Britain. Convicts were still the main source of immigrants. With the foundation of settlements in West and South Australia, and the application after 1831 of the principle of land sales and the use of a portion of the revenue thus accumulated to assist the introduction of new settlers, the flow

[2] W. K. Hancock, *Australia*, London, 1930, p. 39.
[3] *Ibid.*, p. 44.
[4] W. A. Carrothers, *Emigration From the British Isles*, London, 1929, p. 305.

to the Australian colonies steadily increased. Application of the Wakefield principles of colonization in South Australia, and the introduction of the bounty system and government assisted immigration in the Eastern colonies, helped to reduce the disproportion of the sexes. By 1850 the excess of males over females per 100 of population in all the Australian colonies was only 18, compared with 76 in New South Wales in 1800. But while there is no reason to doubt the high fertility of Australian-born and immigrant women, natural increase added less to the Australian population before the gold rushes than net immigration. During the ten years 1822-31, 30,000 immigrants reached Australia. This figure was doubled during the next decade and increased again between 1842 and 1851. Then gold brought a tremendous net influx of settlers —over half a million between 1852 and 1861. At the latter date the population of all the Australian colonies was estimated to be 1,168,000. From the foundation of the first settlement until 1861 net immigration had supplied 871,000 new settlers, or in other words had been responsible for almost three-quarters of the total growth of population.[5]

From the aspect of population growth the gold-rush period ends the pioneering phase of Australia's development. Immigration, it is true, continued to play an important part in Australia's growth. The glut of labour in Victoria and New South Wales which followed on the decline of the gold fields was of short duration. With the opening of new fields in 1861 at Gabriel's Gully in the rugged hinterland of the Otago Province of New Zealand over 20,000 of the itinerant gold seekers moved thence. The gold rushes had also hastened the development of urban communities and a more diversified economy. The advance of agriculture between 1850 and 1860, which increased the aggregate area under crop almost four-fold in Victoria and New South Wales, and seven times in South Australia,[6] and the development of industries and communications to meet the needs of growing communities. increased the absorptive capacity of the Australian colonies. South Australia, which needed a larger population to develop its economy based upon the export of breadstuffs, wool and copper, led the way in the search for immigrants in the post-gold era by establishing an immigration agency in England in 1856. New South Wales followed by sending two agents to England in 1861 to work with the Colonial Land and Emigration Commissioners; while Queens-

[5] F. W. Eggleston, et al., *The Peopling of Australia*, Melbourne, 1933, pp. 39-40.
[6] B. Fitzpatrick, *The British Empire in Australia*, Melbourne, 1941, p. 179.

land appointed an agency in 1866, and Victoria in 1869.[7] State assisted immigrants to the Australian colonies between 1851 and 1870 totalled 307,758, the greater part of these settlers going to Victoria and New South Wales.[8] The economic impetus and the advertisement given to the Australian colonies by the gold discoveries, together with the schemes of assisted migration, helped to make them more attractive to settlers during these twenty years than any other part of the Empire. A series of fortuitous circumstances enabled the Australian colonies to add almost 640,000 permanent settlers to their populations from the four million people who left the British Isles during these two decades. When the incentive of gold had lost its force, the American Civil War helped to turn the attention of prospective British emigrants to more distant shores.

Unlike the Americas, immigration to Australia was almost exclusively a British enterprise. The geographical isolation of Australia and New Zealand from the Old World and their status as British colonies, which left them without a nucleus of European settlers sufficient to attract their own kind, kept them clear of the mounting tide of non-British emigration. The United States of America continued to take the bulk of the German and Scandinavian emigrants, but small settlements of non-Britishers were established in Australia during the nineteenth century. Approximately five per cent. of the gold diggers in Victoria had been of German origin, and there were some 9,000 Germans in South Australia by 1881, while in New South Wales and Queensland Germans helped to lay the foundation of the wine and sugar industries. By 1891 there were 45,000 Germans in Australia. Queensland, however, was the only State to make any serious attempt to glean the migrant market in Europe. The large German emigration to the United States of America after 1850[9] encouraged

[7] F. H. Hitchens, *The Colonial Land and Emigration Commission*, Oxford, 1931, Ch. VIII.

[8] State Assisted Immigration, 1851-70:

New South Wales	89,861
Queensland	1,617
South Australia	62,635
Tasmania	18,488
Victoria	134,557
Western Australia	—
Total	307,158

(From Carrothers, *op. cit.*, p. 317.)

[9] In 1853-55 almost half a million people were leaving Germany annually, and the numbers increased steadily till the '80's. (For a thorough study of European migration in the 19th century see M. R. Davie, *World Immigration, with special reference to the United States*, New York, 1936.)

the Queensland Government to establish an emigration agency at Hamburg. The Scandinavian market was also tapped by the offer of free passages after 1870, but there were never more than 17,000 Scandinavians in all the States in the nineteenth century. A few thousand Italians practically completed the white non-British elements in the Australian population by 1890, and the Asiatics had been effectively checked by the Victorian Restriction Act of 1855 and by later legislation.[10]

Thus immigration to Australia remained essentially British immigration, and however important these small foreign groups were economically in developing specific industries such as vineyards and sugar-cane, demographically their influence was negligible.

Had the Australian environment been more conducive to closer settlement, similar to that offered by the United States Homestead Act of 1862, or again like U.S.A., to the development of a more diverse industrial economy, the attraction for European migrants might have been greater; but as it was a mere portion of the exodus from Britain was sufficient to meet the needs of the Australian colonies. Only in five years did immigration fail to add to the Australian population between 1861 and 1900, and until the economic disturbances of the 'nineties brought the movement to a standstill, the net gain each decade was greater than that of the pre-gold period. In short, Australia's growth was being assisted by the economic development of Britain, which provided an expanding market for the primary products of the colonies, and by the social maladjustments which caused many to seek a more adequate livelihood beyond British shores, and which even encouraged trade unions (e.g., Joseph Arch's Agricultural Labourers' Union) to promote the emigration of their members. Philanthropic bodies, charitable organizations, women's emigration societies and institutions for the care of children were all assisting the movement to Australia.

But important as immigration was to Australia after 1861, it was of less significance than natural increase. Before 1861 immigration supplied consistently over three-quarters of the total increase in population; during the next forty years it supplied only 28 per cent. (Table V.) Nevertheless Australia still had one of the highest rates of increase in the world. With the sharp decline in prosperity after 1890 immigration was reduced to a negligible

10 For non-British migration see J. Lyng, *Non-Britishers in Australia*, 2nd Edition, Melbourne, 1935, and *The Scandinavians in Australia and New Zealand*, Melbourne, 1939.

figure, but even so the average annual rate of increase was still 1.86 per cent. between 1891 and 1896, and 1.49 per cent. between 1896 and 1901.

TABLE V

NET IMMIGRATION AND POPULATION GROWTH, AUSTRALIA, 1788-1901[11]

	Population at end of period (000's)	Increase during period (000's)	Net immigration during period (000's)	Per cent. increase due to immigration
1788-1811	12	12	10	84
1812-1821	35	24	18	75
1822-1831	76	40	30	75
1832-1841	221	145	116	80
1842-1851	438	217	143	66
1852-1861	1,168	730	554	76
1788-1861	—	1,168	871	75
1862-1871	1,701	533	185	35
1872-1881	2,307	606	209	34
1882-1891	3,241	934	361	41
1892-1901	3,825	584	1	2
1862-1901	—	2,657	756	28

Thus it appeared that so long as Australia could maintain a steady influx of immigrants, the rate of growth would be as high as any in the world, and that even without those immigrants the population could continue to grow at a steady rate from the fertility of the people. The high rate of natural increase, and the growing proportion of women amongst the immigrants after 1860 had helped to provide a normal sex composition. By 1900 the excess of males over females per 100 of population had been reduced to five, compared with 18 in 1850. Further, there was a high percentage of women in the reproductive age groups. Women aged 21 to 44 comprised 36.23 of the total female population in 1901 compared with 31.28 in 1881.[12] Also the expectation of life at birth in the decade 1891-1900 was almost 53 years, compared with only 46 years in England and Wales.[13] Thus by the end of the century the majority of the children born in Australia could be expected to live to an age which would permit them to marry and

[11] Adapted from tables by H. Burton in *The Peopling of Australia, op. cit.*, pp. 39, 40.

[12] 1933 *Census Report*, p. 66.

[13] Australian figures from Commonwealth Bureau of Census and Statistics, *Demography*, 1938, p. 176. Unless otherwise stated the vital statistics quoted in the remainder of this chapter are taken from this Bulletin and from Commonwealth Year Books. For England and Wales see D. V. Glass, *Population Policies and Movements*, Oxford, 1940, p. 14.

raise families. The proportion of women marrying was also high. Between 1881 and 1890 the crude marriage rate (marriages per 1,000 of population) remained about 7.5, and in five years (1882-1886) was above 8.1.

Further, the average age of women at marriage was low, being in the twenty-third year between 1881 and 1890, and approximately three-quarters of women married by the age of 29, which meant that they still had fifteen years of their child-bearing lives before them.[14]

TABLE VI

AVERAGE ANNUAL INCREASE, PER CENT., 1881-1901, SELECTED COUNTRIES

	1881-1886	1886-1891	1891-1896	1896-1901
Australia	3.86	3.06	1.86	1.49
New Zealand	3.31	1.47	2.41	1.98
Canada	1.10	1.08	0.97	1.19
United States of America	2.27	2.15	1.93	2.02
Japan	0.96	1.12	0.96	1.25

By 1890 the composition of the Australian population was more favourable to a high fertility than at any previous period. The crude birth-rate (births per 1,000 of population) had fallen from 42 in the early 'sixties to 35 in the 'eighties, and the decline was of sufficient magnitude to suggest that at least some Australian women were applying birth control measures; but it was not sufficient to indicate that the dynamics of growth were ceasing to operate. A birth rate of 35 implied that for the majority of women marriage meant a career of household duties and the rearing of large families. The Australian birth rate in the 'eighties was still approximately the same as the rates of England and Wales, and of most countries of North-western Europe at that time. Moreover, any tendency towards a decline in the Australian birth rate had been accompanied by a fall in the death rate, so that the gap between births and deaths remained wide. Thus, although the birth rate in 1860 was high (42.6), the death rate (20.9) was also high by modern standards, giving a natural increase of 21.7. In 1881 the birth rate had fallen to 35.3, and the death rate to 14.7, leaving a natural increase of 20.6. This was almost forty per cent.

[14] Proportion of married women to total women in quinquennial age groups (married includes widowed and divorced), 1881, Australia:

20-24	39.5	30-34	86.3
25-29	72.7	35-39	91.3
		40-44	93.4

(From Australian National Health and Medical Research Council, *Report of the 18th Session*, Canberra, Nov. 22-24, 1944.) (Hereafter the H. and M.R.C. *Report*.)

above the figure for England and Wales. The advantage enjoyed by Australia was not so much the result of more adequate medical and midwifery services, as the absence of the abject poverty which was still prevalent in large areas of England's industrial cities, and a more nutritive diet. Emigration in the nineteenth century was usually motivated by the desire to seek a more adequate living standard, and for many of those leaving the shores of the British Isles this meant in effect more food, rather than more of the less material advantages.

Statistics can provide valuable data for the social historian, and two conclusions may be safely drawn from a comparative study of the vital statistics of Australia and England and Wales in the 'seventies and 'eighties of last century. First, the women of each country were still marrying and procreating prolifically. Second, death rates reveal that the Australian population was on the average healthier than the population of England and Wales. Here the colonial population gained a decided advantage. It was the low death rate of Australia, and not its high birth rate, that provided a high natural increase. Indeed, even without any immigration the Australian population would have more than doubled in the latter half of the nineteenth century.

After 1890, however, the Australian scene changed. The death rate fell, but the birth rate dropped even more rapidly. The same tendency occurred in England and Wales, and was apparent earlier. (See Table VII.)

TABLE VII

BIRTH AND DEATH RATES AND NATURAL INCREASE, AUSTRALIA, ENGLAND AND WALES—1860-1900.

	Australia. Per 1,000 of population			England and Wales. Per 1,000 of population		
	Live Births	Deaths	Natural Increase	Live Births	Deaths	Natural Increase
1860-1862 - -	42.6	18.6	24.0	34.8	21.5	13.8
1870-1872 - -	37.6	17.3	20.3	35.5	22.3	13.2
1880-1882 - -	35.0	15.1	19.9	34.1	19.7	14.4
1890-1892 - -	34.4	14.0	20.4	30.8	19.7	10.1
1900-1902 - -	27.1	12.2	14.9	28.7	17.2	11.5

A temporary decline in the birth rate was to be expected with the wretched economic conditions prevailing after 1890, which brought the marriage rate down from 7.5 in 1890 to 6.5 in 1896, and which caused an ebb in the immigrant tide of young people of marriageable age. But neither of these factors

supplied the full explanation of the decline in the birth rate from 35.0 in 1890 to 28.4 in 1896, or the further decline to 27.3 in 1900. The decline, which was accentuated by but did not commence with the economic depression of the 'nineties, marked the beginning of that long-term fall in fertility which continued almost unceasingly until 1936. Nor was the decline due in any substantial degree to a tendency of women to marry later or to avoid marriage altogether. As in the case of France since 1850, and of the United States and England and Wales since about 1870, the decline in Australia was due to the lowered fertility of married women.

CHAPTER IV

THE PERIOD OF TRANSITION, 1880-1905.

ONE of the first in Australia to take alarm at this trend of the birth rate was the Government Statistician of New South Wales, T. A. Coghlan. Coghlan considered that Australia, with its sparsely populated lands and rapidly expanding industries, "might reasonably be pictured as an ideal land, wherein the people would prove fruitful and multiply."[1] Coghlan felt, however, that the demographic position of Australia at the close of the century gave no hope of "a teeming population springing from Australian parents," and pointed out that, when compared with the total population, the births in New Zealand, South Australia and Victoria "were proportionately less numerous than in any other country, France alone excepted." The crude birth rate had declined very rapidly in all States after 1885, and when the births were related to married women under the age of 45 it was apparent that the decline was the result of the lowered fertility of married women. For example, the census of 1901 revealed that in New South Wales children under five years of age were fewer in number than at the previous census (1891), and the children born each year between 1887 and 1901 remained about the same despite an increase of some 39,000 married women. In New Zealand, Coghlan declared, the situation was similar, for in that country children were "not sufficiently numerous to fill the schools."

TABLE VIII

LEGITIMATE BIRTH RATES PER 1,000 MARRIED WOMEN UNDER THE AGE OF 45 YEARS, AUSTRALIA AND NEW ZEALAND[2]

Year	New South Wales	Victoria	Queensland	New Zealand
1861	340.8	302.2	—	—
1871	331.5	298.2	—	—
1881	336.3	298.4	316.2	312.2
1891	288.7	297.7	327.7	275.7
1901	235.3	228.6	254.0	246.1

[1] See T. A. Coghlan, *The Decline in the Birth-Rate of New South Wales*, Sydney, 1903, p. 3.
[2] *Ibid.*, p. 4.

Coghlan was deeply perturbed. He forecast that if the influx of population from outside Australia were to cease altogether, the birth rate and death rate would probably adjust themselves as follows:[3]

Birth Rate - - -	27 per 1,000 of population
Death Rate - -	12.2 „ „ „ „
Natural Increase -	14.8 „ „ „ „

Indeed, he considered that the position had been reached when a decline in natural increase might be assumed to be a fixed condition of Australian social progress. There would be nothing incongruous, Coghlan maintained, in a declining birth rate in an old civilization, especially in one afflicted with the incubus of militarism; but the extension of the phenomena to new countries, where population was so much desired, was "novel and astonishing" and claimed the deepest attention.[4] More than that: "Large as is the area of the Australian continent, it is impossible that the people will ever become truly great under the conditions affecting the increase of population which now obtain. Immigration has practically ceased to be an important factor, the maintenance and increase of population depending upon the birth rate alone, a rate seriously diminished and still diminishing. No people has ever become great under such conditions, or, having attained greatness, has remained great for any lengthened period. The problem of the fall in the birth rate is, therefore, a national one of overwhelming importance to the Australian people, and on its satisfactory solution will depend whether this country is ever to take a place amongst the great nations of the world."[5]

Coghlan was writing at a time when a rapid increase in population was still considered by many both natural and desirable. The expansion of numbers was but part of the concept of imperial expansion and colonization. He was writing at a time when the western powers were struggling for supremacy in the Pacific, when Australia was becoming aware of the encroachment of foreign powers upon the islands to the north and east of Australia, and when "White Australia" had been given new meaning by the Immigration Act of 1901. It was to be expected that one moving in this environment should consider the decline in the fertility of the married women of Australia an extremely serious matter from the standpoint of public polity.

But the decline in Australia, a new country, becomes less aston-

[3] *Ibid.*, p. 3.
[4] *Ibid.*, p. 4.
[5] *Ibid.*, p. 69.

ishing when it is remembered that the country was colonized by, and was still receiving immigrants from, the British Isles, where the first signs of declining fertility appeared a decade earlier. Australia may not have had a Mrs. Annie Besant or a Neo-Malthusian society, but some of those coming to the colonies must have been aware of birth control methods then being advocated. That this was so is clearly revealed in the proceedings of the Royal Commission on the Decline of the Birth Rate in New South Wales in 1904.

The Report of the Commission confirmed Coghlan's findings that the decline in the birth rate since 1881 had not been primarily the result of changes in age composition or of a reduction in the proportion of persons who had married. The fundamental factor was the decline of average issue, which, according to the evidence of Mr. J. B. Trivett (Actuary of the Friendly Societies) was due to four factors:[6]

(a) the postponement of marriage;
(b) the decline in fecundity (the ability to reproduce);
(c) the cessation of fertility at an earlier age; and
(d) the decline in fertility of all ages.

Of these the first was the least important. The average marriage age had risen from 22.64 years in the quinquennium 1881-85 to 23.95 years in 1896-1900, a rise of 1.31 years; but over the same period the population of New South Wales had increased by 39 per cent. and births by only 1.7 per cent. The Commission therefore directed its enquiry to a search for causes which could explain the other three factors. The evidence of statisticians indicated that in the period 1861-70 only four per cent. of the women marrying in New South Wales at the age of twenty-five failed to bear children, compared with more than eight per cent. in 1891-97.[7] The decrease in the proportion of fertile marriages increased with the age of marriage.

The decline in fertility of married women had also been proportionately greater with age. The fertility of women aged 20-24 was 12.1 per cent. lower in 1901 than the average for 1871-81, compared with a decline of 36.7 per cent. in the case of women aged 35-39.[8]

[6] Royal Commission on the Decline of the Birth Rate and on the Mortality of Infants in N.S.W., *Report*, 1904, p. 13. (Hereafter R.C., *Report*.)

[7] *Ibid.*, p. 69, Exhibit No. 19, presented in the Evidence of Statisticians. A marriage was considered barren if no child was born within seven years.

[8] *Ibid.*, p. 7.

The net result was a decline in the average issue of married women, which expressed as a percentage was almost equal to the decline of the birth rate.

TABLE IX

FECUND MARRIAGES PER 1,000 MARRIAGES, NEW SOUTH WALES, 1861-1897[9]

Marriage Age	1861-70	1891-97	Decline per cent. on 1861-70
20	970	948	2.3
25	963	919	4.6
30	923	852	7.7
35	845	706	16.5

TABLE X

AVERAGE ISSUE, NEW SOUTH WALES, 1871-1900[10]

Age at Marriage	Children to a marriage Contracted during: 1871-80	1891-1900	Reduction per cent.
20-24	6.4	4.4	30.7
25-29	4.8	3.1	35.3
30-34	3.3	2.0	40.2
35-39	1.8	1.0	44.0
40-44	.6	.3	53.2
All ages	5.4	3.6	32.5

The Commission rejected the view that there was any physiological tendency towards lessened fecundity. Nor was it able to trace the decline of the birth rate to any well-defined economic cause.[11] The fall, which had been gradual but distinct between the years 1867 and 1887, was suddenly accelerated in 1888, five years prior to the great commercial crisis of 1893. Nor, in the Commissioners' view, did the decline appear to acquire any additional impetus because of that cataclysm; but, arguing along the lines of the classical economists, they feared that restrictive regulations of trade designed to abolish competition would interfere with the continuity of employment in many walks of life, render more or less precarious the income of those employed, and thus discourage the existence of large families. The Commissioners, themselves representative of the commercial and professional classes, apparently saw nothing significant in the evidence of the statisticians which indicated that these classes had smaller families than the agricultural and industrial sections of the community. Yet the

[9] R.C., *Report, op. cit.*, p. 69. Exhibit No. 19.
[10] R.C., *Report, op. cit.*, p 69. Exhibit No 19.
[11] *Ibid.*, pp. 14-18.

evidence did not support the view that a steady income and continuity of employment would of themselves encourage large families.

The Commission of enquiry was deliberating at a time when a social revolution was taking root, in Australia as in many other Western countries. An increasing proportion of the people, no longer content with a "bread without butter" existence, were striving to enjoy material standards which had previously been the monopoly of the "upper" classes. Rationalism was extending its grip as an increasing proportion of people were released from the bar of virtual illiteracy by the introduction of compulsory education. Women had already begun their campaign for emancipation. These changes, and the cult of hedonism which began in the 'eighties to break down the rigidity of the social structure of the earlier Victorian era, were to a large extent the result of the commercial enterprise of the middle classes who now so deplored their arrival.

Thus it is not surprising to find that the Commissioners stated that selfishness was the one motive common to all the reasons given by witnesses for the limitation of the size of the family. These reasons, they considered, served to support the observation that "the effort of the race towards its increase in numbers is in inverse ratio to the effort of the individual towards his personal development."[12] But the Commission did admit that the desire to keep fertility within such limits as each one deems reasonable for himself did not have its origins in modern times, but was "thoroughly well established by history." If this hypothesis is correct, then a vigorous search by young parents for the means to give effect to these desires at a time when falling death rates were ensuring that the majority of conceptions would be followed by live births and healthy children was not altogether surprising. In effect, the products of a society which was beginning to pride itself upon its scientific approach to life were to be applied to a matter so intimate as the size of the family. Nor was it surprising that knowledge of the new methods should be spread first among those "middle" classes who had acquired a cost accounting philosophy of life and who had been the first to acquire sufficient education to understand the utility value of advances in medical, as well as physical, science. It was no accident that the writings of Bradlaugh, Truelove and Annie Besant found a market among these classes, rather than among the poor to whom they were essentially directed.

The New South Wales Commissioners, however, were in no

[12] *Ibid.*, p. 17.

mood to seek a rational explanation for this "selfishness" of the rising generation of parents. To them any tendency to limit the size of the family was a characteristic of a decadent society. They admitted that the commonest reason offered by people for restricting procreation was that they could not conveniently afford to rear more than a certain number of children, but the Commissioners felt that this portrayed an ignorance on the part of parents of the true economic and social value of a numerous progeny.

> ". . . The practices involved in the limitation of families are responsible for much physical suffering, for a deadening of moral sensibility, and for a degradation of character among those who resort to them; and these effects must have an unwholesome influence on the general character of the people who move in an atmosphere so vitiated. Defective health, defective morals, and defective character are already manifesting themselves as a warning of more marked deterioration likely to ensue. The effects on trade and commerce must be equally marked. With the proportion of births decreasing, and the natural increase of population diminishing, the demand for the products of industry must flag, and the capacity of the nation to utilize the natural resources of the State must tend to fail. Who can tell what progress New South Wales might not have made if, since 1864, 280,000 citizens had not been lost, and had performed their share in the development of the country; or what strides in prosperity Australia might have taken in the same period, with the assistance of nearly a million more inhabitants?"[13]

The Commissioners, in short, approached the problem with their minds fixed on the nineteenth century, and not on the twentieth. They had no fear of overpopulation in the Malthusian sense; but neither had they any sympathy with the Neo-Malthusian view that a controlled fertility might be an economic and social gain. Nor do they appear to have recognised the significance of their observation that birth control had been practised in some form almost as long as human society has existed. Infanticide and abortion, and famine and disease had long checked population growth. The Christian ethic of the nineteenth century frowned upon the former as an immoral practice; and the increase in productivity among western countries resulting from improved industrial techniques helped to remove the spectre of the latter. The result was a phenomenal increase among western peoples, and particularly among those of British origin. But was there any reason for assuming that this rate of increase could, or should, for economic or social reasons, be maintained indefinitely?

When the demographic facts of the latter half of the nineteenth

[13] *Ibid.*, p. 30.

century are placed in their social context, we realize that the large families of the women of England and the colonies were the result neither of virtue nor of a sense of social responsibility. Women of British countries possessed few legal or political rights. Neither the activities of Mary Wollstonecraft nor the reasoning of J. S. Mill had roused in more than a small minority of women the feeling that they should play an active part in the political and social life of the community, or that their proper station in life was other than the home and the raising of a numerous family. Yet the desire to limit the size of the family was probably there. Carr Saunders and Himes have suggested that throughout history women have desired to limit the size of the family, but that they have usually lacked the means of achieving this aim.[14] Demographic history lends support to this view. What was lacking in the nineteenth century was not the desire to control families, so much as the knowledge of means efficient enough to cope with a new situation. The true reason for the large families of this era was not virtue, but the industrial and agrarian "revolutions," which ensured that an increasing number of conceptions would result in the birth of healthy children who would remain dependants of the parents for at least a decade, and the absence of adequate means of control.

By 1880, however, the Victorian society of England was undergoing a vast change. The suffragettes were beginning to give the Victorian woman a wider vision of her place in society; compulsory education was destroying the value of a large family as an economic asset and was making it a drain on the parents' incomes; and the developments in science and industry were beginning to reveal more effective methods of birth control. There was little in the Australian social structure in the 'eighties to suggest that these forces were not as potent here as in Britain. Indeed, the high degree of literacy, the lack of respect for tradition and the absence of the rigidity of the English class system created a social environment in which new ideas could be readily absorbed.

The decline in the birth rate which became apparent in most Western countries in the 'seventies and 'eighties of last century can only be explained by reference to the social transition that resulted from the growth of industrial society. Judged from the standpoint of Victorian respectability, the social structure at the opening of the twentieth century may have been decadent; but from the broader historical viewpoint it would be more accurate to say that

[14] A. M. Carr Saunders, *op. cit.*, p. 107, and N. E. Himes, *Medical History of Contraception*, London, 1936, p. 111 et seq.

that social structure was undergoing a readjustment in response to external stimuli. The advances of science and technology were creating an environment in which uncontrolled fertility was becoming increasingly a social and economic handicap, and at the same time were providing more effective means for family limitation.

Thus if we assume that the desire to keep fertility within such limits as individual parents deem reasonable has long been present in human society, and is not just a modern phenomenon, a rational explanation can be found for the decline in the size of the family in New South Wales and other communities enjoying the fruits of rising material standards of living. Advances in science and technology may have little or no effect on the birth rate if other factors than the material are dominant; but a study of the social structure of the Australian and other British communities provides little evidence to suggest that this was so at the close of the nineteenth century. Hedonism was gaining a firmer hold as religious constraint weakened; a widening range of goods and services were becoming available to all but the poorest sections of society; and in a society which was the product of laissez-faire and individualism parents considered their individual well-being of greater importance than their traditional social obligations, particularly in the intimate matter of determining the size of the family.

As we stated earlier, the New South Wales report of 1904 declared that the reason almost invariably given by people for restricting procreation was that they could not conveniently afford more than a certain number of children.[15] But the Commissioners considered this generalization an insufficient explanation for interference with the course of nature and, from the evidence of witnesses, assessed the "true" reasons as:

i. An unwillingness to submit to the strain and worry of children;
ii. A dislike of the interference with pleasure and comfort involved in child-bearing and child-rearing;
iii. A desire to avoid the actual physical discomfort of gestation, parturition, and lactation; and
iv. A love of luxury and of social pleasures, which, they considered, was increasing.

To declare, as the Commissioners did, that these reasons "have one element in common, namely, selfishness,"[16] is to beg the question. If we interpret "afford" in its widest sense, with more than

[15] R.C. *Report, op. cit.*, p. 16.
[16] *Ibid.*, p. 17.

a cash value connotation, there is no fundamental difference between the statement of those who declared that they could not afford more than a certain number of children and the four points classified above. Behind these points was a century of industrial development, which had separated the majority of the people from the soil and made their existence dependent upon the sale of their labour, which had broken the rigidity of the estate system of pre-industrial society and established new opportunities for social mobility, and which had given rise to a generation in whom economic ambition was strong. Family limitation was the social adjustment being made to co-ordinate individual well-being with a new environment.

If we assume that the four points given above were the true reasons, they support to some extent the thesis of "social capillarity" expounded in 1890 by the French demographer, Arsène Dumont.[17] He stated that in a society where movement from class to class is easily accomplished, the individual tends to mount to higher levels in his social environment, and that in the process of climbing he becomes less and less likely to reproduce himself, because children handicap him in his efforts to ascend. Nor do these points clash with Carr Saunders' later theory that throughout history growth in numbers has been determined by man's interpretation of the economically desirable numbers under the prevailing conditions of life.[18]

In Australia, as in many other Western countries at the turn of the century, social prestige was no longer determined by hereditary rank, but essentially by wealth, and infertility, or at least the absence of an unrestricted progeny, facilitated the maintenance or improvement of social status. Increased opportunities for social mobility and the growing importance of the economic factors thus combined to accelerate the decline in fertility. It is not sufficient to seek the cause of declining fertility in Australia at the end of the nineteenth century in mere selfishness, or yet in a love of luxury and social pleasures. The cause lies rather in the changing structure of society and the growth of a new sense of values in which the material was dominant. R. A. Fisher put the matter succinctly when he stated in 1930 that a cause of the decline in fertility in the modern world has been the social promotion of

[17] See A. Dumont, *Dépopulation et Civilisation*, Paris, 1890.

[18] See A. M. Carr Saunders, *The Population Problem; a Study in Human Evolution*, Oxford, 1922, p. 476 et seq.; also his *World Population*, Oxford, 1936, Ch. XVII.

For a discussion of the theories of Dumont and Carr Saunders see W. S. Thompson, *op. cit.*, Ch. III, and J. J. Spengler, *op. cit.*, Ch. VII.

the less fertile.[19] By the end of the century an increasing number of young parents, literate to a degree as the result of compulsory education, had sufficient perspicacity to realize that restricted fertility was a cause of wealth and that wealth was the *sine qua non* of social advancement. The New South Wales Commissioners were half right when they stated that the decline in fertility was "indicative of the desire of the individual to avoid his obligations to the community": they were nearer the heart of the matter when they declared that "the effort of the race towards its increase in numbers is in inverse ratio to the effort of the individual towards his personal development."[20]

We have stated that statistical information indicates that the practice of family limitation was in evidence in New South Wales before the onset of the economic crisis of the 'nineties. (See Table VIII.) Despite the view of the Commissioners to the contrary, the economic crisis following 1890 appears to have given an impetus to the decline in fertility. That decline was too great to be attributed to fluctuations in the marriage rate. Between 1891 and 1901 the proportion of married women in each of the quinquenniums 20-24 and 25-29 declined from 16.02 to 13.15 and from 25.62 to 21.82 respectively,[21] but this was insufficient to account for a decline of twenty per cent. in the birth rate during this period. The economic crisis helped to accelerate a tendency already operating and to give it permanence, for the economic recovery by the end of the century, although it checked the decline, brought no recovery in the birth rate, either in New South Wales or in any other Australian State. Birth control had come to stay.

The fact that the spread of birth control knowledge, and that the development of new contraceptives which rendered the practice more efficient, coincided with the beginning of the steady fall in fertility in New South Wales and elsewhere, does not establish contraceptives as a primary cause of the decline. We have already argued that the desire to prevent conception has long been present in human society, and history provides evidence that this desire was at times made effective. A Chinese recipe for abortion is said to date back to about 2737-2696 B.C.; various Egyptian papyri contain recipes for contraception and abortion; and throughout the literature of Greece and Rome there are references to contraceptive methods.[22] Lack of statistical evidence makes it difficult to gauge the extent to

[19] R. A. Fisher, *The Genetical Theory of Natural Selection*, Oxford, 1930, p. 253.
[20] R.C. *Report, op. cit.*, p. 17.
[21] *Ibid.*, p. 90, Exhibit 143.
[22] D. V. Glass, *op. cit.*, pp. 28-29.

which these methods were used, but the writings of Polybius suggest that in Rome, at least, birth control was widely practised in the second century B.C. In modern Europe the conditions favouring widespread family limitation did not arise until industrial and scientific advances ensured that an increasing proportion of conceptions would result in live births and that uncontrolled procreation would threaten the social and economic status of both parents and children.

A decline in fertility may well have resulted during the closing years of the century by the use of the traditional methods of control, such as abortion, coitus interruptus and douching. But that the extent of the decline was greatly influenced by the spread of new techniques appears incontrovertible. The condom, which first became available to the general public after the process of vulcanizing rubber had been discovered in the mid-nineteenth century, provided a method of birth control which avoided both the expense and risk to health involved in abortion. By the end of the century mechanical pessaries, which had long been used, were being manufactured in cheap and reliable forms.[23] These methods, while not entirely reliable, probably reduced the number of "unwanted" births. Further, the knowledge of the new techniques spread with activities of societies such as the Malthusian League, which held its first meeting in London in 1877, and with legal action against birth control exponents, such as Charles Bradlaugh and Annie Besant in the same year.

The precise extent to which the birth control literature, which was widely circulated in England, was disseminated in the Australian colonies is difficult to determine. Glass observes that as early as June, 1879, the Malthusian League had received subscriptions from six ladies of Wanganui, New Zealand. Between 1879 and 1881 an effective Neo-Malthusian movement had also taken root on the continent of Europe.[24] Even without direct access to the literature, many of those coming to Australia must have been aware of the activities of the Neo-Malthusians. That this was so is suggested in the evidence of the Royal Commission in New South Wales.[25]

Much of the evidence before the Commission concerning prevention was given by gynaecologists, obstetricians, police officers, clergymen and retail establishments concerned with the sale of contraceptives. A medical opinion "that deliberate interference

[23] *Ibid.*, p. 30.
[24] *Ibid.*, p. 38.
[25] See R.C. Report, *op. cit.*, Parts V and VI, for material on birth control.

with the function of procreation has during recent years become extremely common," or a clergyman's statement that a gentleman had informed him at the baptism of his baby that the interval of seven years between the birth of his two children was not accident, but design, cannot be accepted by themselves as reliable evidence of an increase in preventive measures. An enquiry into these matters twenty years earlier might have produced the same statements. Much of the evidence before the Commission of 1904 must be treated with caution in the absence of statistical information by which these value judgments can be checked. But while the evidence lacks the material necessary to enable a close comparison with the situation in earlier years, it does indicate that deliberate prevention of conception and the destruction of embryonic life was practised in New South Wales by the end of the century, and, moreover, that these practices were not limited to any one section of the community.

Apart from "certain rubber goods"[26] which were stopped at the Customs' House for a period prior to 1891, because they were classed as "indecent and obscene," there was no prohibition on the import of birth control appliances, which were stocked by the majority of druggists. The demand for these goods had apparently been sufficient to encourage their manufacture by wholesale and retail druggists both in Sydney and in the country. These articles were also carried from house to house by hawkers and women, some of whom were attired as nurses. For those who could not receive the preventives and abortifacients by these means, numerous mid-wives, nurses, keepers of lying-in-homes and a few medical practitioners were apparently willing to oblige. Nor were these practices without a certain amount of publicity:

> "The freedom with which those who pander to the demand for facilities to avoid child-bearing advertise their wares or their skill is evidenced by the fact that 237 advertisements of this nature, 103 advertisements regarding the cure of 'nervous debility, etc.,' and 105 other advertisements, all objectionable in regard to their patent or latent indecency, were collected from a single recent issue of 141 of the newspapers published in this State. . . . The freedom allowed in the dissemination of information regarding preventives, abortifacients and abortionists, is also shown by the numerous leaflets, pamphlets, and books which are transmitted through the post office or openly distributed from door to door."[27]

The report implies that the dissemination of this knowledge was

[26] *Ibid.*, p. 15.
[27] *Ibid.*, p. 16.

encouraged by the introduction of the birth-control measures advocated by the English Neo-Malthusians, and by the judicial sanction given to their publication by a decision of the Full Court of New South Wales in 1888.[28] Extracts from this decision were scattered throughout Australia, and even reached Great Britain, and the Commissioners considered there was a remarkable coincidence between the promulgation in 1888 of the views expressed in this judgment and the sudden fall of the birth rate in 1889. This case may have had some influence. It is of interest to note that the birth rate of Sydney which, unlike that of the remainder of the State, was higher in 1888 than in 1880, dropped to a record low level of 38.0 in 1889—a fall of 7.5 per cent. in a year.[29] But again the judicial decision of 1888 was not the cause of family limitation, although it may have encouraged more people to try the experiment. It is worth noting that the virtual withdrawal of this judicial sanction in 1902 as a result of the decision in the case "Potter v. Smith"[30] did not increase the birth rate.

The spread of knowledge concerning preventive techniques was not sufficient, however, to meet all the demands for family limitation, from whatever cause that desire sprang. Nor can it be assumed that preventives were sufficiently fool-proof to achieve the end desired by all those who used them. The reduction in the State's illegitimate birth rate from 18.35 in 1886 to 16.21 in 1901 may have been due in some measure to the spread of safer contraceptive methods, but it should be remembered that the latter rate was still higher than that of 1861 (15.29). Contraceptives were only one side of the picture. Medical evidence before the Commission revealed that abortion was still widely resorted to as a method of family limitation.[31] Whether or not this played a greater part than contraceptives cannot be gauged in the absence of statistical data; but all the evidence suggests that those seeking abortion who came into contact with the medical profession were prepared to discuss the question without any deep sense of sin or immorality. Family limitation was becoming a topic of every-day conversation, and women—even "absolutely good women in the best sense of the word," as one witness stated—did not "look seriously on the question of either preventing children or unloading children when children were on the way." To seek advice from a medical practitioner concerning ways and means of procuring an

[28] New South Wales *Law Reports*, Vol. IX, 1888, "Ex parte Collins."
[29] R.C. Report, *op. cit.*, p. 62, Exhibit No. 5.
[30] New South Wales Law Reports, 1902, Vol. II.
[31] For medical evidence, see Report, *op. cit.*, Part VII.

abortion was, if the medical evidence is a representative sample, a common occurrence, even country women coming to the metropolis for this purpose. Gynaecologists also attributed the greater part of the increase in diseased and septic conditions of the reproductive organs "to the deliberate and unnatural efforts of women, both married and unmarried, to obtain release from what they regard as an unwelcome encumbrance," but the rapid advances in this branch of medical science in the closing years of the century must also have increased the awareness of these diseases.

The whole of the evidence is unsatisfactory for a comparative study of trends in abortion and other preventive methods, but it does illustrate two points. First, the desire to control the size of the family was common by the end of the century, and was not limited to any one section of the community; and second, a considerable number of people no longer considered the discussion of birth control indecent or immoral.

The Victorian ethic, however, was still strongly entrenched when the Commissioners met. Religious leaders of all denominations were of one mind on the subject of birth control. Presbyterian, Congregational, Church of England and Methodist ministers joined with the Cardinal Archbishop of Sydney in condemning both the practice and the desire as a violation of the sanctity of marriage and demoralizing from the ethical point of view.[32] A conflict of attitudes among religious sects had not yet occurred on this subject. Like the Hebrews of old they considered that there was a close relation between individual happiness and national welfare on the one hand and a "quiver full" of children on the other. "Be fruitful, and multiply and replenish the earth."[33] But the modern Rachael was not prepared to say to her Jacob: "Give me children, or I die."[34]

The possibility of a relationship between falling death rates and family limitation did not occur to the witnesses or the Commissioners, who likewise recognised "the grave immorality of deliberately preventing conception in marriage." Moreover, they were as convinced as Arsène Dumont that the life of an only child "is an uninterrupted lesson in egoism lasting twenty years," and that "men from large families have greater social worth." A family was not enough. Only a large family could provide a secure foundation for the nation and, by the effort demanded for its

32 R.C. Report, *op. cit.*, pp. 25-28.

33 Genesis 1:28.

34 For a discussion of religions and population theories see C. E. Strangeland, *op. cit.*, Ch. II.

support, stimulate a conscientious regard on the part of the parents for duty and promote good citizenship.[35]

What constituted "large" is not clear, but it was probably not below the average issue of 5.4 children born to marriages contracted in the decade 1871-80. (See Table X.) Fifty years earlier a woman marrying at the age of twenty-five might have conceived ten times, or every two years on the average throughout the remainder of her child-bearing life, to rear a family of six. As late as 1850 half the children born in London died before the age of five. Even this was a marked improvement over the end of the 18th century when Adam Smith observed the case of the Highland women, who might give birth to twenty children only two of whom might remain alive. In the decade 1891-1900 an Australian woman could, on the average, expect eighty-two per cent. of the children she bore to be alive at the age of fifteen. Seven conceptions in 1900 might have produced the same result as ten in 1850, but allowing for the considerable decrease in the fecundity of women after the age of 35, a conception every eighteen months during the first five years of marriage (assuming a marriage age of twenty-five) would not be unreasonable. The effect of this level of fertility upon the health of the mother[36] or the children, and the economic burden imposed on the bread-winner in a social organization which decreed that the children should remain dependants until the age of twelve years were, apparently, not considered by the Commissioners to be relevant to the decline. Had these aspects been considered more closely the Commissioners might have paused before interpreting the growing desire for family limitation as immoral. Immoral it might have been judged by the standards of 1850, but those standards no longer motivated the people.

The measures recommended by the Commission to check the decline in fertility were necessarily conditioned by their attitude to the causes.[37] They recommended a higher standard of obstetric art to reduce infant mortality, adequate hospital accommodation for the treatment of contagious and puerperal diseases, the licensing of lying-in homes and private hospitals, and adequate training for midwives. Rigid methods were also recommended to control abortion and to permit the sale of drugs only upon the written

[35] R.C. Report, *op. cit.*, p. 28.

[36] Statistical evidence in the report showed that while the probability of death during confinement decreased from .008 per cent. for first births to .005 per cent. for second births, it increased for each subsequent birth, to .006 per cent. for sixth births and .007 per cent. for seventh births. For eighth and later births the risk was greater than for first births.

[37] R.C. Report, *op. cit.*, Part VIII.

prescription of a legally qualified medical practitioner. The compulsory registration of still-births was also proposed to check the negligence of midwives and the wilful destruction of children at birth. To check the dissemination of the knowledge of preventives, the Commission considered that the State should prohibit the importation, sale or advertisement of all goods intended for the prevention of conception in women, and of printed directions or advice as to the methods by which such articles might be used.

The majority of these measures were socially desirable, irrespective of their effect on the birth rate; but none of them was directed to a removal of factors strengthening the desire to limit the size of the family. Control of irregular practices in the manufacture and sale of contraceptives was desirable, but the attempt by government or other public body to decree that married couples should not deliberately restrict the number of children born to them could not succeed in the long run while the general will favoured restriction. So long as this remained, and so long as some women were not convinced of the sin of abortion, an attempt to impose a complete ban on preventives would tend to be offset by less desirable methods of control.

The Commission thus turned to measures which would create an environment that would minimise the desire for limitation. Thus the churches were invited to devise some means of instituting a general crusade "of such an impressive character as would arouse the conscience of married people" to a recognition of the degradation of the marriage state involved in the practice of restriction, and (a thesis the validity of which is open to question) to an understanding that history and science combined to show that national degradation and decay must inevitably result from such a practice. With the same object in view, religious instruction of the young was recommended—without attempting, one assumes, the encouragement of that type of ascetism which spurns the lusts of the flesh.

The physical environment also received attention. The Commission observed that the birth rate was higher in the country than in the city (but the reverse held between 1880 and 1892), and higher among agriculturalists than those engaged in urban occupations, and recommended the encouragement of a numerous rural population. This implied replacing much of the pastoral activity of the State by closer settlement for agricultural purposes. Nor did the Commission consider that the State had an industrial future beyond the manufacture of goods for consumption within the Commonwealth. Such industry, moreover, was not to be promoted

by the greater employment of women and girls in factories, because of its deleterious effect upon their reproductive organs and general health. Where female labour was employed, moreover, improvements in working conditions and industrial hygiene should be encouraged to minimise such effects.

Land settlement was the main plank of the environmental reforms, by which the idleness of youth was to be checked, the productiveness of the State to be encouraged, the desire for limitation of families to be diminished, and the absorption of immigrants encouraged. In brief, the economic and social life of the community was to be so organized as to reap the undoubted benefits of unimpaired fertility and a steady influx of immigrants. Moreover, what was New South Wales's problem was just the problem of Australia as a whole, and the future of the Commonwealth, and especially the possibility of maintaining a "White Australia," depended upon a vigorous recruitment of posterity by means of a high birth rate and large-scale immigration. The Commissioners agreed with Coghlan that Australia could not become truly great unless the decline in the birth rate was checked. They feared that unless this problem was solved Australia might be lost to the British, and its loss could be ascribed to the supineness of the people. The writing, it considered, was on the wall for all to see:

> ". . . while Russia and Japan, prospective rivals of Australia for supremacy in the Western Pacific, are already seeking outlets beyond their own borders for the energies of their ever-growing people, it will be forty-six and a half years before Australia, with her three and three-quarter million inhabitants, and dependent alone on her natural increase (if this even be maintained at its present rate), will have doubled her population; 113 years before she will have twenty millions of people; and 168 years before her numbers will have reached the present population of Japan."[38]

The prognosis of the future was over-optimistic. The figure estimated for 1950 will be reached, thanks to the liberal influx of immigrants during the twentieth century, but in the light of present-day realities the long-term estimates are hopelessly optimistic. Coghlan's estimate of a birth rate of 27, and a natural increase of 14.8 per 1,000 of population, has been halved. Could the Commissioners who passed judgment on the state of morality in New South Wales in 1904 but scan the demographic scene in Australia to-day, they would weep for our degeneracy.

[38] *Ibid.*, p. 53.

CHAPTER V

DEMOGRAPHIC TRENDS OF THE TWENTIETH CENTURY

CONCERN regarding the consequences of the decline in the birth rate had been expressed in official circles before 1904, but the Royal Commission of 1904 in New South Wales was the first attempt in British countries to assess the causes of the decline and to recommend measures to check it. There was nothing novel and astonishing, as Coghlan suggested, in the demographic scene analysed by the Commission. Nor was there anything fundamentally different in the situations in Australia and in Britain, except that the decline began slightly later in the former. Subsequent events proved, moreover, that the decrease in the fertility of married women, which was the main reason for the decline, was not a temporary phenomenon. From the demographic point of view the Victorian era in Britain and Australia was drawing to a close by 1890. The demographic history of Australia since that time is the record of family limitation, which was applied in moderation until the end of the first World War and with increasing intensity during the next twenty years. The difference between the twentieth century and the closing years of the nineteenth century is one of degree, not of fundamentals.

The important fact revealed by a historical survey of population trends is that family limitation is not the product of the economic recession of the nineteen-thirties. In its modern form it goes back for at least two generations, and in cruder, more barbarous methods has roots far back in history. The severe economic disturbances in the 'thirties drove deeper a trend already apparent in the Australian community, a trend which was not caused by the depression of the eighteen-nineties, but which preceded it and which can be explained only by changes in the social structure.

That the economic disturbances of the 'nineties of last century and of the 'thirties of this did affect the rate of population growth is clearly revealed in statistics, but neither was responsible for the small family habit. Both depressions lowered the marriage rates of the community, and thereby brought down the birth rate and the rate of growth by natural increase, but in neither case was

economic recovery, which raised the marriage rates to levels above the normal average, followed by any marked increase in the size of the completed family.

The demographic history of Australia in the twentieth century may be divided into three parts:

1. The period of stability, covering the years 1900-1916;
2. The period of decline, 1916-1934;
3. The recovery which followed the depression and continued during the second World War.

The first period appeared to confirm the soundness of T. A. Coghlan's forecast that the birth rate would probably adjust itself at 27 per 1,000 of population.[1] He also forecast a death rate of 12.2, giving a natural increase of 14.8 per 1,000. His figure for the death rate proved to be too high, for in only one year (1902) did it exceed 12.2, and it declined steadily to 9.7 in 1917. The birth rate remained fairly constant throughout this period between 25 and 28 per 1,000, and only in 1902 and 1903 did natural increase fall below Coghlan's estimate of 14.8. But this rate of increase implied no more than the maintenance of fertility at the levels established by the end of the century. There was no recovery in fertility with the return of more prosperous times. We stated earlier that the birth rate fell from 42 per 1,000 of population in 1860-62 to 35 in 1880-82. That this decline was not due entirely to changes in age composition is revealed from a study of the birth rates of married women of child-bearing age. In New South Wales, for example, each thousand married women aged 15-45 bore on the average 336 legitimate children in 1881 compared with 340 in 1861. A similar decline was apparent in Victoria.[2] But thereafter the rate fell sharply, and by 1900 the new pattern, which was to remain substantially unaltered until 1918, had emerged.

The demographic structure of the Australian population was favourable to a high fertility. By the turn of the century there was a higher percentage of women in the reproductive age groups aged 20-44 than in earlier years (36.2% in 1901 compared with 31.3% in 1881); and the marriage rate, which had been under 7 per 1,000 since 1891 had recovered to 7.02 in 1899, and to 7.24 in 1900. Yet these favourable conditions brought no appreciable increase in the birth rate. It is true there were factors militating against an increase in the birth rate. The excess of males over females per 100 of population had been reduced from 9.54 in 1871 to 5.01 in

[1] Coghlan, *op. cit.*, p. 3.
[2] See Tables VII and VIII above.

1901. This, and the absence following the depression of large-scale immigration with a high proportion of young women who were either married or betrothed, had reduced the proportion of married women in the Australian community. In the important age group 25-29 only 57 per cent. of the women were married in 1901, compared with 67 per cent. in 1891; while in the quinquennium 30-34 the figures were 75 per cent. in 1901 compared with 82 per cent. in 1891.[3] These factors, however, were of less importance in the post-depression years than the restricted fertility of married women. The average annual number of births in wedlock in Australia per 1,000 married women aged 15-44 had declined from 332 in 1890-92 to 235 in 1900-1902,[4] and there was little variation from this latter figure until the first World War. In other words an average family of fewer than four children was becoming the norm accepted by the majority of Australian parents.

Substantial though the decrease in fertility in Australia had been in the closing years of the nineteenth century, the rate of growth of the population between 1900 and 1914 was still high compared with other countries. Few Western countries enjoying relatively high standards of living had a higher birth rate, and the death rate was amongst the lowest in the world. From 1902 until 1906 Australia suffered an adverse balance of migration, the total net loss being 24,800, but after that date until the outbreak of war net migration added 292,000 people to the Australian population. This combination of a high rate of natural increase and substantial immigration provided an annual average rate of increase between 1906 and 1911 of 2.04 per cent., which was above that of most European countries and only exceeded among immigrant-receiving countries by New Zealand (2.43%) and Canada (2.90%).[5]

During this phase of stability between 1900 and 1916, when the birth rate appeared to have settled at a figure sufficient to provide a healthy rate of increase, and when there were few who doubted the capacity of the United Kingdom to continue her role as a reservoir from which immigrants could be drawn in large quantities when desired, it was not surprising that little attention was

[3] Percentage of females married in each age group (married includes widowed and divorced):—

Age Group	1891	1901
20-24 - - - -	34.8	28.0
25-29 - - - -	67.1	56.8
30-34 - - - -	82.3	75.2
35-39 - - - -	88.1	83.6

(From 1933 Census Report, pp. 168-70.)

[4] H. & M.R.C., *Report, op. cit.*, p. 18.

[5] Commonwealth *Year Book*, 1938, p. 335.

given to the size of the family. Among the Dominions generally the solution for any lag in population growth was being sought in a greater volume of immigration and not in any policy to increase fertility within the respective countries. The idea of an imperial plan of migration was gaining ground before the war of 1914-18.

TABLE XI

CRUDE BIRTH AND DEATH RATES, AND NATURAL INCREASE, ANNUAL AVERAGE 1908-12 FOR SELECTED COUNTRIES[6]

	Per 1,000 of Population.		
	Births	Deaths	Natural Increase
Australia	27.2	10.7	16.5
England and Wales	25.2	14.2	11.0
Canada	26.1	12.5	13.6
New Zealand	26.7	9.4	17.3
France	19.4	18.5	0.9
Germany	30.0	16.9	13.1

The genesis of the idea is to be found in the report in 1888 of the British Lords' and Commons' Committee on Colonization, which declared that migration and colonization should be developed into a scheme which would "mutually benefit both the Mother Country and the colonies by increasing the area of cultivation, expanding markets for home manufacturers, indirectly increasing the prosperity of Colonial cities and towns, and directly promoting Imperial and Colonial trade."[7] The Colonial Conference of 1907 carried the idea a stage further when it resolved that British emigrants should be encouraged to go to the colonies instead of to non-British countries. Four years later the Imperial Conference re-affirmed this principle. At that conference, however, a British representative struck a new note when he issued a warning that the British birth rate had fallen to an unprecedented low level and that for this reason Britain could not afford to export more than 300,000 emigrants a year. The colonies could "absorb the overflow but they must not empty the tank."[8] The Dominions were slow to heed the warning and it took repeated warnings of British Committees on migration and the influence of the World War to bring the Dominion statesmen to the realization that the declining birth rate of the imperial parent must sooner or later limit the volume of British migration and throw the Dominions back upon their own internal resources for continued growth of population,

[6] Figures from W. S. Thompson, *op. cit.*, pp. 152, 217, 249.

[7] British *Parliamentary Papers*, 1889, LV (Report of the Lords' and Commons' Committee on Colonization), p. 29.

[8] *Ibid.*, 1911, LIV, *Precis of Imperial Conference* (Cmd. 5741), p. 43.

unless they were prepared to open their doors to non-British settlers.

In Australia the conception that the solution for an inadequate rate of growth of population lay primarily in a higher fertility appears to have been forgotten after the Royal Commission of the New South Wales Government produced its report in 1904. From then on the solution was sought in an increased volume of immigration, and with a net annual gain from immigrants of more than 70,000 during the three years prior to the outbreak of war, there appeared to be grounds for optimism concerning the future growth of Australia, so long as a stable birth rate and a falling death rate kept the natural increase at, or above, the figure prevailing before the turn of the century.

Not until after the war of 1914-1918 was it recognised—and then only with extreme slowness—that falling fertility both in Australia and in other Western countries generally was creating an entirely new situation in the Dominion in regard both to immigration and to the prospects of growth from internal sources.

The first turning point in the demographic history of Australia was the period of economic instability in the nineties; the second was the first World War. Compared with its effect on the European belligerents, that war touched Australia lightly. It has been estimated that in the 1914-1918 war some fifteen per cent. of all the men mobilized in Europe died in service, a loss amounting to approximately eight per cent. of all male gainful workers.[9] The majority of these deaths were concentrated among men between the ages of 20 and 34. In many countries, moreover, the war separated men from homes and families, prevented the birth of further children and also prevented marriage. In France the marriage rate dropped from a pre-war level of 7.7 per 1,000 to 2.3 in 1915, and in Germany the rate fell from 7.8 to 4.1. England and Wales suffered less severely, the pre-war rate of 7.8 falling to 6.9 in 1917. As a result of these factors, the birth rate of these countries fell sharply during the war, being reduced in some cases by as much as fifty per cent.[10]

Despite heavy war casualties and a reduced birth rate, some of the belligerent countries, and notably England and Wales and Germany, maintained a slight increase, but many actually decreased in numbers. Between 1910 and 1920 the French population

[9] F. W. Notestein, et al., *op. cit.*, pp. 74-5.

[10] P. M. Hauser, *loc. cit.* Hauser quotes the following birth rates:

France,	1911-13 - -	18.8	
	1916 - -	9.5	
Germany,	1911-13 -	28.0	
	1917 -	13.9	
England and Wales,	1911-13 - -	24.2	
	1918 - -	17.7	

shrank by 2,300,000, the Austrian by 240,000, the Polish by 2,700,000 and the Russian, as the result of war, famine and revolution, by almost 14 millions. During the decade 1910-20 war, famine and disease decreased the European population as a whole by about 10½ millions, or by three per cent.[11] Excluding Russia, Europe lost the equivalent of its natural increase from 1914 to 1919.[12] In other words, when the deaths among both the armed forces and civilians due directly and indirectly to the war, and the birth deficits as a result of these deaths, are considered, the total deficit in population suffered by Europe (exclusive of U.S.S.R.) between 1914 and 1919 was approximately seven per cent. of the pre-war population. The deficit was most severe in Serbia and Montenegro (31% of the 1914 population), Roumania (14%), Austria-Hungary (9.5%), Germany (8%) and France (7.7%). The United Kingdom (3.9%) suffered less than many of her allies and enemies.[13]

Another legacy of the war among European countries was the unbalanced sex ratio. In 1919 Germany had 2,214,000 more women than men between the ages of 15 and 49. In France and England and Wales the surpluses amounted to 1,227,000 and 1,209,000 respectively.[14] Large numbers of women of child-bearing age were thus deprived of the opportunities of rearing families in these monogamous societies. Moreover, those who did marry bore fewer children on the average than the pre-war parents. The birth rates in European countries rose again after the war, but in few cases did they recover to the pre-war level. The decline in fertility which had been apparent in many countries before 1914 was severely accentuated during the war, and after 1920 it resumed its downward course. The vacancies caused by death in the 1914-18 war were never filled, and it was the reduced number of babies born during the last war who were called to the colours in 1939 to have their ranks still further thinned at the moment when many of them were contemplating marriage and the rearing of families.

Australia suffered none of the violent effects experienced by the European belligerents during the 1914-18 war. In the years immediately preceding the outbreak of war the marriage rate, the birth rate and the rate of natural increase were slightly higher than at any time since 1900. It was not until 1917 that the full effect of war was felt upon the marriage rate; and the decline in the birth

[11] *Ibid.*
[12] Notestein, et al., *op. cit.*, p. 83.
[13] *Ibid*, p. 75.
[14] Hauser, *loc. cit.*

rate from 28.2 in 1913 to 23.5 in 1919 was much less severe than in the case of most European belligerents. The return of men from overseas in 1919 created a boom in marriages, but the birth rate did not rise proportionately. The decrease in the birth rate before 1919 and the slightly higher rate during the following three years

TABLE XII

CRUDE BIRTH RATES OF AUSTRALIA AND SELECTED EUROPEAN COUNTRIES, BEFORE AND AFTER THE WAR OF 1914-1918

	Average 1908-12	1913	1918	Average 1918-22	
Australia	27.2	28.2	25.0	24.7	
Austria	26.5	—	—	21.9	(1919-22)
Belgium	23.6	—	—	18.4	
England and Wales	25.2	24.2	17.7	20.9	
France	19.4	18.5	12.1	17.3	
Germany	30.0	27.9	14.1	21.7	
Holland	28.7	28.3	25.3	26.1	
Italy	32.7	32.1	18.5	26.4	
Poland	38.2	—	—	32.7	(1919-22)
Roumania	41.5	—	—	36.4	(1920-22)
Russia	45.6 (1906-09)	—	—	40.9	(1920-24)

were merely the reflection of a fluctuating marriage rate with its effect on first births. In 1911 25 per cent. of all births were first births. In 1921 the effect of the boom in marriages immediately following the war is seen in the fact that 30 per cent. of all births were first births. During the early war years there was no tendency for the size of the completed family to increase, and the steadily falling birth rate after 1920 was evidence of a further spread of the small family habit.

Nor did the war of 1914-18 leave Australia with any serious disproportion of the sexes. In all, Australia despatched 339,900 soldiers abroad. Of these 59,300 were killed, representing a loss of approximately 3.5 per cent. of the number of males who were gainfully occupied (i.e., males aged 15-64) in the mid-period of the war. Severe though this loss was, it did not leave a surplus of women comparable with England or the European belligerents. The first post-war census in 1921 recorded 2,762,870 males, and 2,672,864 females, or a ratio of 103.4 males per 100 females. When the "early adult" age groups 21-44 are considered the effects of the war are more clearly seen. In this group in 1921 there was a slight excess of women (997,117 females compared with 996,413 males)[15] but this temporary excess was quickly offset by the net addition

[15] 1921 Census, *Report*, p. 65.

TABLE XIII

Australian Vital Statistics 1900-1944

Year	Estimated Mean Population (in 000's)	Registered Births	Birth Rate *	Death Rate *	Natural Increase *	Marriage Rate *
1900	3,741	102,221	27.33	11.78	15.55	7.24
1902	3,848	102,776	26.71	12.49	14.21	7.26
1904	3,943	104,113	26.41	11.05	15.36	7.02
1906	4,060	107,890	26.57	10.92	15.65	7.49
1908	4,194	111,545	26.59	11.07	15.53	7.76
1910	4,370	116,801	26.73	10.43	16.29	8.37
1912	4,654	133,088	28.60	11.21	17.39	9.06
1913	4,821	135,714	28.15	10.74	17.41	8.63
			WORLD WAR I.			
1914	4,946	137,983	27.90	10.46	17.44	8.76
1915	4,985	134,871	27.06	10.59	16.47	9.07
1916	4,947	131,426	26.57	10.95	16.62	8.14
1917	4,947	129,965	26.27	9.71	16.56	6.81
1918	5,029	125,739	25.00	9.99	15.01	6.59
1919	5,196	122,290	23.53	12.69	10.84	7.80
1920	5,359	136,406	25.45	10.50	14.95	9.62
1922	5,571	137,496	24.68	9.21	15.47	8.03
1924	5,814	134,927	23.21	9.46	13.75	7.89
1926	6,059	133,162	21.98	9.40	12.58	7.90
1928	6,304	134,078	21.27	9.42	11.85	7.71
1930	6,466	128,399	19.86	8.56	11.30	6.69
1932	6,578	110,933	16.86	8.63	8.23	6.63
1934	6,678	109,475	16.39	9.32	7.07	7.71
1936	6,778	116,073	17.13	9.43	7.70	8.66
1938	6,894	120,415	17.46	9.64	7.83	9.05
			WORLD WAR II.			
1939	6,962	122,891	17.65	9.93	7.72	9.23
1940	7,032	126,347	17.97	9.72	8.25	11.08
1941	7,102	134,525	18.94	10.02	8.92	10.58
1942	7,171	136,708	19.06	10.49	8.57	12.00
1943	7,230	149,295	20.65	10.30	10.35	9.36
1944	7,307	153,344	20.99	9.53	11.46	9.33

* Per 1,000 of mean population.

during 1921-1925 of 183,300 immigrants, among whom there were twice as many males as females, and the majority of whom were under the age of thirty years. Thus in Australia the excess of females in the reproductive age groups caused by war was corrected in less than a decade, whereas in European countries this excess was not entirely eliminated until a new generation of young parents had replaced those affected by the war.

Between 1914 and 1920 the population of Australia increased by approximately 439,000, or by 8.8 per cent. The average annual rate of increase was thus approximately 1.47 per cent., almost the whole of this being due to natural increase. Between 1912 and 1914 the average annual rate of growth due to natural increase was 1.74 per cent. If we assume that the average rate of natural increase which prevailed between 1912 and 1914 would have continued from 1914 to 1920 had the war and the influenza epidemic of 1919 not intervened, the increment in population would have been approximately 519,000, or 80,000 more than the actual increase. Because of the nature of the assumption upon which it is based, this figure cannot be taken as an exact estimate of the deficit in population growth which Australia suffered as a result of the war. It may however be taken as a rough approximation of the net loss arising from military deaths, from the epidemic following the war and from the deficit in births as a result of both these factors.[16] The deficit thus calculated represents about 1.6 per cent. of the population in 1914, or one-half of the deficit experienced by the United Kingdom, which was one of the lightest sufferers among the European belligerents. Furthermore, as stated earlier, the renewal of immigration after 1920 helped to heal rapidly the scars inflicted by war on the Australian population.

While the effect of the war years, measured in terms of birth deficits and excess deaths, was slight compared with other countries, the failure of the birth rate to recover after the war denoted a further restriction in the fertility of married women. The war was the dividing line between the pre-war period of stability and the post-war period of decline, which continued with increasing speed until approximately 1934.

Had the birth-control habit not been in evidence before the war, it might have been reasonable to assume that the war was directly responsible for the decline in fertility after 1918; but that habit was established before the war. The war of 1914-1918, however, gave an impetus to forces making for social change, which were already apparent in the Australian community before 1914. The disruption of normal pre-war family life, the impetus given to the emancipation of women, the problem of social readjustment which faced

[16] Approximately the same figure may be obtained by another method. Assuming 98 per cent. of the 339,900 servicemen sent abroad would have lived until 1920 had the war not occurred, war was directly responsible for an excess of approximately 47,000 deaths. In addition, deaths in 1919, the year of the influenza epidemic, were approximately 10,000 above the normal average. The elimination of the fluctuations in the birth rate during the war would increase the number of births 1914-20 by some 24,000. The total of these figures is 81,000.

both the returned soldier and the civilian whose peace-time pursuits had been interrupted by war, and the spread of a hedonistic attitude to life, all helped to create social instability; and before the necessary readjustments could be effected the onset of the world depression added economic insecurity to a situation that was already unstable.

Until 1918 a falling civilian mortality rate helped to offset the downward trend in the birth rate; but during the second phase, i.e., the period of decline 1918-1934, the birth rate fell more rapidly than the death rate, and natural increase was steadily reduced from 15 per 1,000 of population to 7 per 1,000 in 1934. Again this decline cannot be attributed to changes in age composition. The percentage of women in the reproductive age groups (15-44) was 47.6 in 1921 and 47.5 in 1933, both figures being above the level of 1891. The renewal of immigration after 1921 increased the number of young women of marriageable age, and quickly increased the masculinity of the young adult population.

Nor can the decline before the depression be attributed to fluctuations in the marriage rate, or to the higher average age of marriage. The war had little effect on the number of marriages in Australia until 1916. In 1918 only 13,200 marriages were recorded, compared with 18,100 in 1915. But a boom in marriages followed the war, with 20,200 marriages in 1920 providing the highest marriage rate of the century (9.62 per 1,000 of population). Many of these marriages would normally have taken place before the war ended, but the increase in the average age of brides between 1917 and 1921 was not sufficient to have any serious effect on fertility.[17] The boom in deferred marriages had spent its force by 1921, and from 1922 until 1929 the marriage rate remained steadily between 7.4 and 8 per 1,000 of population, and the average age of brides at marriage was approximately the same as in pre-war

TABLE XIV

AUSTRALIA: PROPORTION OF MARRIED WOMEN TO TOTAL WOMEN IN EACH FIVE-YEAR AGE GROUP

Age Group	1901	1911	1921	1933	1939
20-24	28.0	30.0	33.6	31.2	35.6
25-29	56.8	58.7	63.5	62.4	66.8
30-34	75.2	72.2	76.2	77.5	77.8
35-39	83.6	78.6	81.1	83.0	82.4
40-44	87.7	83.0	82.3	84.9	85.8

(Married includes widowed and divorced.)

[17] The average age of brides 1917-21 was 26.07 years, compared with 25.7 years 1907-11.

years (25.8 years 1925-29, compared with 25.7 years 1907-11). In 1921, moreover, a higher proportion of women of child-bearing age was married than in the immediate pre-war years or at the opening of the century.

Thus if the fertility of married women had remained at the pre-war level the birth rate would have risen after 1920 for the same reason that it rose in the years immediately following 1911. The fall in the birth rate after 1920 was due to the same factor as the fall after 1880, i.e., the decline in the fertility of married women. Births in wedlock per 1,000 married women aged 15-44, which had remained fairly constant about 235 between 1900 and 1914, had dropped to 197 in 1920-22, and by 1932-34 had fallen as low as 131.

TABLE XV

AUSTRALIA: AVERAGE ANNUAL NUMBER OF BIRTHS PER 1,000 WOMEN AGED 15-44[18]

	Births per year per 1,000 women aged 15-44	Births in wedlock per year per 1,000 married women aged 15-44
1890-92	159	332
1900-02	117	235
1910-12	117	236
1920-22	107	197
1932-34	71	131
1938-40	76	136
1941-43	84	141

A fall in the crude birth rate was to be expected after 1929 because of the severity of the economic depression and its effect on the marriage rate; but the extent of the decline was too great to be merely a reflection of the tendency of young adults during the depression to postpone marriage. The increase in the average age of brides at marriage from 25.23 years in 1936 to 25.92 years in 1938 suggests that some marriages were postponed, but a further analysis of marriage and birth statistics indicates that a more important factor in the rapid decline after 1929 was the tendency to postpone conception and to control more rigidly the size of the completed family. The depression years bear witness rather to the increased knowledge and efficiency of modern contraceptive techniques than to any weakening of the desire to marry. The majority of the population preferred Place's method of birth control to Malthus's of restraint from marriage as a means of preventing poverty. The marriage rate did fall from 7.73 per 1,000 of population in 1928 to 6.63 in 1932, but this temporary

[18] H. & M.R.C., *Report, op. cit.*, p. 18.

decline had been checked by 1934, and by the following year the rate had risen to 8.66 and was to continue its upward trend until the record figure of 12 per 1,000 was reached in 1942. Again, when the marriage rates of specific age groups are considered, the slight and transitory nature of the effect of the depression years upon marriages becomes further apparent. By 1935 a higher proportion of women in the quinquennial groups 20-24 and 25-29 were marrying than at any period since 1911. Yet in 1912 and 1913, when the population of Australia was less than five millions, the total of births was greater than in 1939 and 1940, when the population was approaching the seven millions mark. Indeed, the total of births in 1942 (136,708), following a period of extremely high specific marriage rates in the two quinquennial groups mentioned above, was still lower than in 1914 (137,983).

TABLE XVI

AUSTRALIA: FEMALE MARRIAGE RATES PER 1,000 FEMALES IN EACH AGE GROUP.[19]

Age	1911	1921	1924	1928	1934	1935	1936	1937	1938	1939	1940	1941
15-19	24.1	24.9	26.2	28.0	25.6	25.8	27.0	26.7	27.5	27.8	33.8	34.8
20-24	77.2	83.3	81.0	80.9	77.4	84.1	85.7	86.7	90.8	94.3	117.3	114.8
25-29	52.1	52.2	46.7	45.2	47.6	52.8	53.7	52.6	50.7	55.8	64.5	55.5
30-34	22.7	21.9	19.3	16.9	17.7	19.9	20.0	20.4	21.3	20.9	24.9	22.9
35-39	12.4	11.0	16.7	9.6	8.2	9.0	9.5	10.1	10.3	10.1	12.3	12.7
40-44	6.2	6.5	5.9	5.3	4.4	4.9	5.1	5.3	5.6	5.0	6.5	7.2
15-44	194.7	199.8	195.8	185.9	180.9	196.5	201.0	201.8	206.2	213.9	269.3	247.9
Ratio 15-29 ÷30-44.	3.71	4.07	3.67	4.85	4.95	4.81	4.81	4.62	4.59	4.94	4.93	4.79

We have already stated that the Great War of 1914-1918 gave an impetus to the decline in the Australian birth rate. Likewise the depression of the 'thirties undoubtedly accentuated the decline, and helped to bring births in 1934 (109,475) to the lowest level recorded since 1907 (110,347). Had the rapid fall after 1929 been due entirely to the economic factors brought into play by the depression, a substantial recovery in the fertility of married women should have followed the return of relative prosperity. It is true that the number of births rose from 109,475 in 1934 to 126,347 in 1940, and again to 149,295 in 1943, but this increase was no more than a reflection of the rising tide of marriages, and provided no grounds for assuming that the decline in the fertility of marriage, which had been the main factor for the falling birth rate for

[19] Figures for 1911-34 from S. H. Wolstenholme, "The Future of the Australian Population," in *The Economic Record*, XII, No. 23 (1936), p. 211: for 1935-41, calculated from Demography Bulletins ("Marriages: Relative Ages of Bridegrooms and Brides" and official estimates of female population). 1928 and 1934 are given as years representative of the pre-depression and post-depression situations.

almost half a century, had been reversed, or even checked. More important than the increase in the total number of births in the post-depression years was the increase in first births, from 39,500 in 1934 to 57,800 in 1943. In the earlier year first births amounted only to 29 per cent. of all births, compared with 39 per cent. in 1943.

It is too early to gauge the precise effect of the second World War upon Australian fertility, but the deficit in births and deaths as a direct result of war has been much less severe than it was in the case of the 1914-18 war, and if the advances made in the last twenty years in medical science can avoid a repetition of post-war epidemics, the loss in deaths arising indirectly from war will be avoided.

The rise in the Australian birth rate during the war of 1939-45 has been similar to increases experienced by other countries. This is the converse of the general experience between 1914 and 1918. Nor have rising birth rates been experienced only by belligerent countries. For example, between 1938 and 1943 the birth rate of the United Kingdom rose from 15.5 to 16.9, of France from 14.6 to 16.9, of Holland from 20.5 to 23.0, and of U.S.A. from 17.6 to 22.0. Over the same period the rates for Eire were 19.4 and 22.3, for Sweden 14.9 and 19.3, and for Switzerland 15.2 and 19.2.[20] When these figures are related to trends in marriage, the increase appears to be a reflection of rapidly rising marriage rates during the early war years. In the case of the United States of America the marriage rate rose from 10.2 in 1938 to 12.6 in 1941, which was the highest figure ever recorded.[21] In England and Wales, also, the high marriage rates of 1939 (10.6) and 1940 (11.4) were followed by inflated birth rates in 1942 (15.8) and 1943 (16.5).[22] In the United States of America and the United Kingdom the short-term deficit in population due directly to war has been lighter than it was

20 Bank for International Settlements, *Fourteenth Annual Report* (April, 1943-March, 1944). The German birth rate fell from 19.6 in 1938 to 16.0 in 1943.

21 Hauser, *op. cit.*, p. 309. A further interesting feature of the U.S. war-time demographic scene is the high peaks in the birth rate which appear 9-10 months after Dunkirk, after the passing of the Selective Service Act, after the introduction of Lend Lease, and particularly after Pearl Harbour. Each shock that brought U.S. nearer war appears to have been followed by an urge among young Americans to marry and establish the basis of a family, or in some cases, perhaps, to postpone the draft. (See W. H. Grabill, "The Effect of the War on the Birth Rate and Post-War Fertility Prospects," in *The American Journal of Sociology*, L, No. 2 (1944), pp. 107-11.) The sharpness of the peaks, which were due almost entirely to first births, suggest that R. Pearl's estimate of an average of 2·54 copulations per pregnancy (see his *The Natural History of Population*, London, 1939, p. 74) may be shown by a wider sample than his 199 couples to be too pessimistic.

22 Vital Statistics of England and Wales 1939-43, in *The Journal of the Royal Statistical Society*, CVII, Part II (1944), p. 147.

between 1914 and 1918. The European countries, however, have suffered, and will suffer, more than either of these. Accurate statistics cannot be gleaned beyond 1943, but since then the birth rates of most European countries must have suffered severely as a result of the displacement of some 30 million people, or about 5 per cent. of the total population of Europe and the U.S.S.R.[23] To this displacement must be added mass murder and malnutrition. It has been estimated that the war of 1939-45 cost Germany 3 million lives (but the German population still increased by some 7½ millions), and the allied countries a total loss of 15 millions, as a result of military and civilian deaths.[24] Nor can it be assumed that the war-time increase in the birth rates of many countries will in any way offset this loss, because, related as these rates are to the high frequency of marriages, they imply no change in pre-war fertility patterns, and birth rates will fall catastrophically when this marriage boom has spent its force.

The long-term effects of the second World War will be serious in the majority of the European countries. With the important exception of the U.S.S.R., the replacement of war deaths by new births will be slow because of the low fertility patterns prevailing. Moreover, the majority of these countries have a generation of young adults reaching marriageable age who have been seriously depleted by the loss of births during the war of 1914-1918, and by the military and civilian casualties during the war of 1939-1945. From the demographic point of view the second World War could not have occurred at a more disastrous time. To raise the birth rate even to pre-war figures the reduced number of young adults in the reproductive age groups will have to bear, on the average, considerably more children than did the parents of the inter-war period, for these young people will be a diminishing quantity. Figures for Great Britain will again illustrate the point. In 1937 women aged 15-30 numbered approximately 5,700,000. The women in this group will be reduced to 5,500,000 in 1951 and to 4,400,000 in 1961.[25] War casualties, which are not included in this estimate, will reduce these figures further in the immediate future, and, because of the higher proportion of deaths among males than females, compel a proportion of these women to remain unmarried. Thus if the birth rate is to be raised in Britain after the war fewer married women will have to bear more children. But the war-

[23] See E. M. Kulischer, *The Displacement of Population in Europe*, Montreal (I.L.O.), 1943, for a general study of this question.

[24] *Report* by International Committee for the Study of European Questions, quoted in *Sydney Morning Herald*, April 15, 1946.

[25] *Current Trend of Population in Great Britain*, Cmd. 6358 (1942), p. 11.

time increase in births provides no assurance that this will be the case.

As we stated earlier, Australia suffered lightly as a result of the first World War compared with European countries. The same holds true for the war of 1939-1945. The concentration of the bulk of the armed forces during most of the war in Australia or in the island territories close to the mainland enabled many married men to rejoin their wives at more freqeunt intervals than was possible for the Australian Imperial Force during the 1914-18 war. Housing problems and other abnormalities of the war years do not appear to have seriously restricted marriage or the beginnings of a family. Births rose steadily from 122,900 in 1939 to 149,300 in 1943, and again to 153,300 in 1944, in response to a steadily rising marriage rate. But without a drastic change in the pattern of the Australian family and a large increase in third and subsequent births, Australia will also suffer a rapid fall in births when the boom in war-time marriages, and the consequent boom in first births, and to a smaller extent in second births, has spent its force. The fall in the marriage rate from 12 per 1,000 in 1942 to 9.4 in 1943 suggests that the peak of the marriage boom has already passed. The rapid increase in births in Australia during the second World War and the small loss of men in combat (25,000 compared with 59,000 in 1914-1918) suggest that the long-term deficit of population due to war will on this occasion prove extremely slight. Even if we assume a net loss of 40,000, or half the estimated loss due to the 1914-1918 war, this would represent a deficit of only 0.5 per cent. of the population in 1939.

But slight as may be the effect of this war upon the population, the war years may in future be taken as a turning point in Australia's demographic history, because they mark the period when the full effect of a generation of decline in fertility begins to be felt in the age-composition of the population. Without replenishment by immigration, the numbers of young adults reaching marriageable age will soon begin to decrease because of the steady decline in births after 1920, and they will continue to decrease for almost a generation. Thus even though fertility should be maintained at the pre-war figure of 136 births for each thousand married women between the ages of 15 and 44, the crude birth rate will continue to fall. Further, there will be an increasing number of persons in the higher age groups, and even an increasing expectation of life may not prevent a rising death rate, and therefore a reduced rate of natural increase. In this regard Australia is typical of much of the Western world.

CHAPTER VI

FERTILITY PATTERNS AND THE FUTURE

A CONTINUED decline in the birth rate may be compared to a stone rolling down a steep incline—the further it rolls the greater the momentum and the harder it is to stop. The stage has now been reached in Australia when (without immigration) the maintenance of recent fertility patterns will not prevent a further decline in the crude birth rate, or in the rate of natural increase, because of the changes in the age composition of the population which are now occurring as the result of past experiences. The fall in fertility during the closing years of the nineteenth century was not sufficient to cause any serious alteration in age structure in the twentieth century. As we saw in Chapter V the rate of natural increase rose slightly between 1900 and 1914 in response to falling mortality rates, and immigration was maintained at a high level, so that the proportion of the population in the child-bearing age groups was sustained. The average annual rate of increase during this period (1900-1914) was approximately 2 per cent. per annum, two-thirds being derived from natural increase, and one-third from net immigration. This rate of growth was higher than that of most Western European countries, and was only exceeded in the white countries of the New World by Canada and New Zealand. The cessation of immigration during the first World War, and the estimated loss of some 80,000 people through military and civilian deaths and birth deficits, were not sufficient to reduce the rate of increase below an average of approximately 1.5 per cent. per annum.

After the war, however, the internal position began to deteriorate, as the birth rate fell more rapidly than the death rate, to reduce natural increase from 13.9 in 1923 to 10.7 in 1929. Again, however, the net addition of some 20,000 assisted and free immigrants helped to rectify the deficiencies resulting from a lowered fertility, and the total average annual rate of increase between 1923 and 1929 was still 1.9 per cent., which was still higher than the average of most countries of Western Europe and of the New World, and also of Japan. But during the next decade, the severe reduction in the birth rate as a result of both the stricter application of birth control techniques and the postponement of marriages, and the

cessation of immigration, brought the average rate of growth to 0.8 per cent. per year, a rate below that prevailing in most New World countries and in Japan. The rapid increase between 1939 and 1943 in the number of births as a result of factors studied in Chapter V was not accompanied by any marked rise in the birth rate of married women of reproductive age, and did not imply any change in pre-war reproductive patterns. If we assume that these patterns will be maintained, and that there will be no immigration in the immediate future, the birth rate must fall sharply within the next decade for two reasons: first, the inflated war-time marriage rates cannot be maintained over a long period; and second, there will be a diminishing supply of mothers in the important reproductive groups between the ages of twenty and thirty years.

Consider, first, the effect of these past trends upon age-structure. Between 1907 and 1934 the population of Australia increased from 4,162,000 to 6,766,000, yet there were more births in 1907 (110,347) than in 1934 (109,475). Again, until 1942 the greatest number of births recorded in Australia was 137,983 in 1914, when the total population was scarcely 5,000,000. With the exception of a slight temporary rise in births after the last war, there was a steady decrease in the total number of births from 1914 until 1934, and this decline has been reflected in recent years in the reduction in the size of the juvenile section of the population. Children under four years of age increased slightly between 1938 and 1941, but even so there were fewer children in the juvenile group (0-14) in 1941 than in 1921. The effect of the decline in fertility is also being felt in the 15-19 age group which attained a maximum of 641,000 in 1940, and fell to 639,000 in 1941. The decline in this group will gather momentum during the next decade as the full force of the birth lag of the depression years takes effect.

TABLE XVII

POPULATION BY AGE GROUPS—AUSTRALIA, 1901-1941.

NUMBERS (IN THOUSANDS)

	1901	1911	1921	1933	1938	1941
0-14 - - -	1,326	1,410	1,724	1,822	1,733	1,715
15-19 - - -	381	454	467	615	624	639
15-64 - - -	2,297	2,765	3,472	4,379	4,667	4,865
65 and over -	150	191	321	450	493	522
AS PER CENTAGE OF TOTAL POPULATION						
0-14 - - -	35.1	31.6	31.7	27.5	25.1	24.2
15-64 - - -	60.9	64.1	63.9	66.0	67.7	68.6
65 and over -	4.0	4.3	4.4	6.5	7.2	7.2

Only the entry of large numbers of young immigrants can prevent this decline. The increase in the older groups will be sufficient to ensure the growth of the whole wage-earning section (15-64) for more than a generation, but the age pattern of the Australian population, with its increasing proportion of old people, is even now less adequately equipped for reproduction than it was ten years ago.

These changes raise important questions connected with future educational policy, the effects of an aging labour supply upon economic development and communal responsibility for the aged. These will be considered later. The present purpose of this analysis is primarily to consider these changes in relation to future growth. This requires a more careful examination of the distribution of the female population. Since 1891 the decrease in the proportion of female children under 15 as a percentage of the total female population has been almost exactly offset by the increase in the proportion of women over 45. Consequently the proportion of women in the child-bearing years (15-44) has remained substantially the same. The following table shows the changes since 1891:

TABLE XVIII

AUSTRALIAN FEMALE POPULATION IN SPECIFIED AGE GROUPS, 1891-1941
(NUMBERS IN THOUSANDS AND PER CENTAGES)

	1891	1901	1911	1921	1933	1941
14 (Immature)	579	656	696	850	895	840
Per Cent.	39·4	36·5	32·5	31·8	27·4	23·9
15-44 (Reproductive) ..	693	786	1,059	1,272	1,548	1,661
Per Cent.	47·1	48·8	49·4	47·6	47·5	47·2
45 and over (Sterile) ..	198	263	387	551	820	1,020
Per Cent.	13·5	14·7	18·1	20·6	25·1	29·0

The fact that the proportion of females in the reproductive group was almost as high in 1941 as in 1921 does not mean, of course, that the population is now as suitable to child-bearing as it formerly was. Until the last few years the increment of women to the reproductive age groups remained high, but the rapid decline in the birth-rate after 1921 is now beginning to tell, and over the next twenty years an increasing percentage of *all* females in the 15-44 age groups will be found in the more advanced and less fertile ages. This is clearly illustrated from an examination of the age

grouping of women in 1940. In that year there were 908,444 females aged 15-29, and only 840,805 females aged 0-14. Thus, migration excluded, even if all the females aged 0-14 in 1940 live during the succeeding 15 years, there will be fewer women aged 15-29 in 1955 than there were in 1940. In other words, however favourable the reduction in mortality, there will be fewer Australian-born women of marriageable age fifteen years hence than there are to-day, despite a considerable increase in the total population.

The number of females in the reproductive age groups surviving from the present female population may be estimated by application of the Australian life tables for 1932-34. If such an estimate is not taken beyond the year 1960, and is therefore concerned only with the survivors of females already alive, it should present a fairly accurate picture of the immediate future. The next fifteen or twenty years may bring some reduction in mortality, but any such reduction is likely to affect the very young and the aged more than the adult groups between 15 and 49.

TABLE XIX

ESTIMATE OF THE FUTURE FEMALE POPULATION OF REPRODUCTIVE AGE, AUSTRALIA*

Age Group	Female Population in Thousands					
	1933	1940	1945	1950	1955	1960
15-19	304	315	299	257	274	355
20-24	287	296	314	296	255	272
25-29	257	297	289	311	293	252
30-34	238	266	294	286	307	289
35-39	237	240	263	290	281	302
40-44	226	233	232	257	284	276
45-49	199	227	226	226	251	277
Total: 15-49	1,748	1,874	1,917	1,923	1,945	2,023

* Estimates 1945-60 calculated by application of the 1932-34 mortality experience. Migration is excluded.

This table reveals clearly the aging tendency which will be apparent over the next fifteen years among women in the child-bearing years:—

(1) The 15-19 age-group is already in decline and will not begin to recover until after 1955. That recovery will be temporary unless the birth rate is sustained at recent levels.

(2) The age group 20-24 will increase until 1945, decline sharply during the next decade and then recover as a result of the increase in births between 1935 and 1940.

(3) The 25-29 group will reach a maximum in 1950, and decline sharply during the next ten years.

(4) The 30-34 group will reach a peak in 1955, but will be smaller in 1960 than in 1945.

(5) A temporary decline will also take place in the 35-39 group in 1955, and in the 40-44 group in 1960.

The total number of females aged 15-49 will continue to increase until 1958, but the 20-34 group will decline from 859,000 in 1940 to 813,000 in 1960.

The significance of this decline in the younger section of women of child-bearing age is immediately apparent when it is related to the female specific fertility rates.

TABLE XX

FEMALE SPECIFIC FERTILITY RATES—AUSTRALIA, 1911-1941. FEMALE BIRTHS PER 1,000 WOMEN AT EACH AGE GROUP

Age Group	1911	1921	1924	1927	1930	1933	1936	1938	1939	1940	1941	Per-Cent. Decline 1911–1938*
15–19	13.60	12.83	13.44	14.52	14.33	12.49	12.18	11.40	11.74	11.67	11.89	16.2
20–24	64.08	65.45	63.19	63.32	57.51	47.96	50.33	53.05	53.92	54.24	59.43	17.2
25–29	90.69	82.24	80.16	76.64	70.42	59.68	62.02	63.11	65.16	68.03	70.84	30.4
30–34	80.31	68.50	66.58	58.91	54.40	47.30	46.33	47.78	47.14	48.09	49.72	40.5
35–39	60.41	49.48	46.84	41.44	37.11	29.73	29.89	27.73	27.89	27.61	28.69	54·1
40–44	26.96	21.66	19.41	16.79	15.37	11.95	10.19	9.72	9.19	9.44	9.52	64.0
45–49	3.30	2.10	2.15	1.66	1.50	1.26	1.11	1.01	0.91	0.84	0.79	69.4

* 1938 is taken as more representative for purposes of comparison than 1941, when the demographic abnormalities due to war were already apparent.

The female specific fertility rates of the 15-19 group are of minor importance in a study of fertility patterns. Of greater significance than the fluctuations in the total rates of this group is the decline in the proportion of ex-nuptial births, which provides clear evidence of the increasing knowledge of efficient birth control techniques amongst a section of the teen age population. Between 1912 and 1933 ex-nuptial births per 1,000 women aged 15-19 declined by 40 per cent. and nuptial births by less than three per cent. In this group ex-nuptial births are being replaced to a considerable extent by nuptial births, the former accounting for only 17 per cent. of all births in 1940.

It is significant that the percentage decline in the specific fertility rates given in Table XX increases with age. There was little change in the specific fertility of women aged 20-24 until the onset of the economic depression of the 'thirties. The rapid fall after 1927, and the steady rise after 1933, in the fertility of the 20-24 and 25-29 groups reflect the depression and post-depression trends in the

marriage rates and the effect of delayed births. In both of these groups first births are important, and consequently their fertility changes rapidly in response to fluctuations in the marriage ratios and in the interval between marriage and the birth of the first child. Of greater importance is the severe reduction since 1911 of the fertility of women aged 30 and over. The 30-34 group recovered slightly after 1933; but in all older groups the decline, which had been apparent since 1911, continued until 1940. The Australian women between the ages of 30 and 49 appear to have applied their knowledge of birth control techniques as successfully as the teen age group, but, of course, for a different purpose.

If this pattern of fertility persists in the future, the women in the younger groups, under the age of 30, will remain the most important child-bearing section of the community. In recent years these women have been responsible for approximately 65 per cent. of all births. In 1927, 1,591,000 women of child-bearing age gave birth to 133,698 children, but in 1940 the births from 1,874,000 women numbered only 126,347. The decline in births over these years was mainly due to the lowered specific fertility of women over 30, and not to change in age composition; but without immigration, births will decrease in the future even if fertility is sustained at recent levels, and the cause will be the increasing proportion of women in the older, less fertile, age groups. If, for example, the specific fertility rates of 1941 (the highest for a decade) are applied to each five-year age group of the estimated female population (see Table XIX), the number of births thus calculated for 1960 (131,400) is less than the actual number of births in 1941 (134,524), despite an increase in the total number of women of fertile age from 1,891,000 to 2,023,000.

If the births of the Australian-born population are to rise above recent figures, the fertility pattern of pre-depression days will have to be recaptured. Thus, the application of the specific fertility rates of 1927 (when the net reproduction rate was 1.245) to the estimated reproductive population of 1960 gives a total of 156,400 births. This figure is approximately 3,100 above the actual births for 1944 (153,344), the highest number then recorded. Even this figure is not likely to raise natural increase to any high level, however, unless a decrease in the death rate is achieved in the future. Such a decrease will be increasingly hard to achieve in a population that is growing old. The most likely method of reduction, and most profitable from the point of view of the future supply of mothers and babies, is an attack on infant mortality.

So far we have considered the relation between trends in fertility

TABLE XXI

AN ESTIMATE OF FUTURE BIRTHS, AUSTRALIA*

Actual Births		Estimated Births			
		Specific Fertility Rates Applied	1950	1955	1960
1927	133,698	1927	163,600	158,900	156,400
1941	134,525	1941	134,900	134,100	131,400

* The estimates of female population used were those in Table XIX. To these were applied the specific female fertility rates for the years given, and male births were calculated by application of the average masculinity of births 1930-40, i.e., 105 male births per 100 female births.

and the age composition of the population. Let us now determine the bearing of the decline in the birth rate upon current and future rates of growth. To do this it is necessary to calculate a replacement rate, and the first step in this process is the calculation of the gross reproduction rate, which shows the number of female children which will be born in any year, at current levels of fertility, to each woman living through the child-bearing period.

To obtain the Gross Reproduction Rate the average number of women living at each year of age, or in each five-year age group, between 15 and 49, and the number of births occurring to women in each year of age, or in each five-year age group, must be known. There is usually a small number of births to women under 15 and over 49, but these may be related to women aged 15 and to women aged 49 without introducing any appreciable error in the final result. When each year of age is used, the sum of these specific fertility rates will then give the Gross Reproduction Rate, or the number of female births expected from 1,000 women passing through the child-bearing age in given conditions of fertility. If five-year age groups are used the method of procedure is similar, but the total of the specific fertility rates of the five-year age groups must be multiplied by five. The latter method is generally used, and produces the same result to the third decimal place as the longer method of using single years.[1]

The Gross Reproduction Rate is a measure of pure fertility, but the rate is of little importance as an index of replacement, for it

[1] For illustration of method of calculating, and of significance of, Gross and Net Reproduction Rates, see R. R. Kuczynski, *The Measurement of Population Growth*, London, 1935.

Further expositions may be found in Carr-Saunders, *op. cit.*, pp. 119-123, and Glass, *op. cit.*, pp. 383-387.

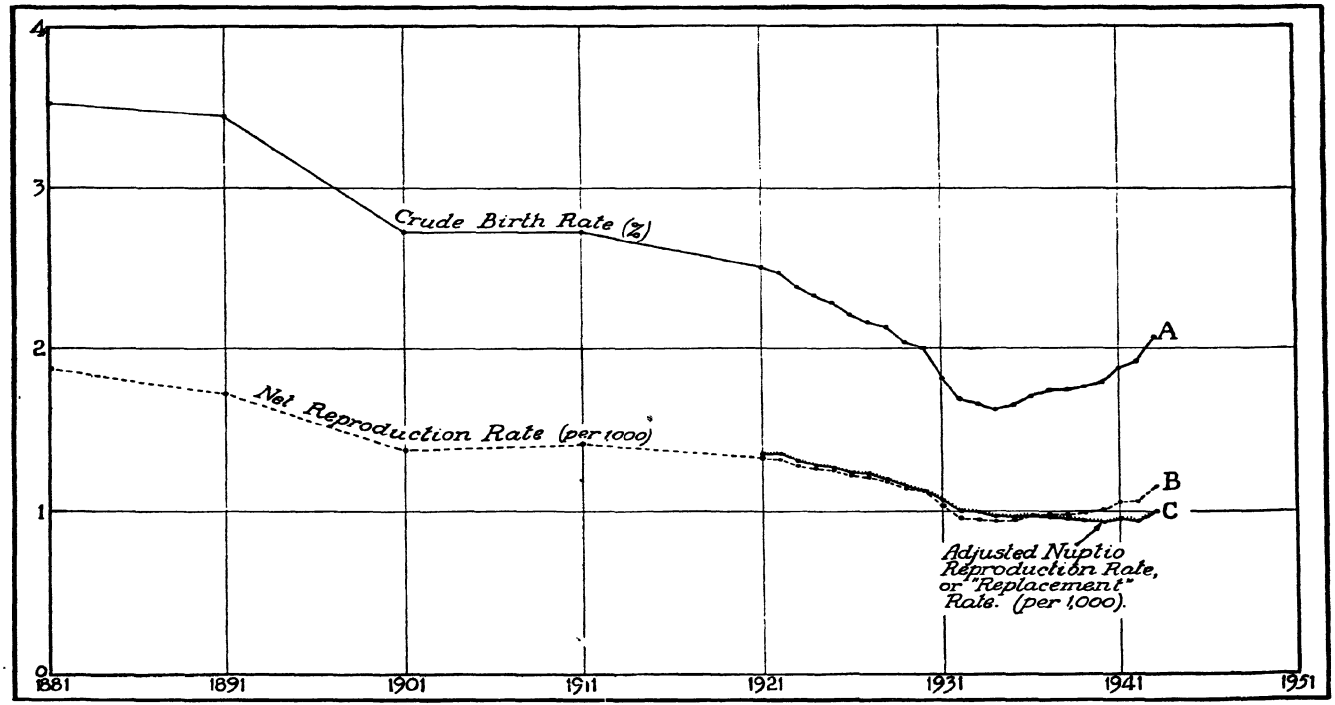
does not allow for mortality among the children born to women in each age group. Obviously not all the children born will themselves live through the child-bearing period. For example, if 1,000 women during the course of their reproductive life gave birth to exactly 1,000 female children they would not have left sufficient children to replace them, because some of these children would die before reaching the reproductive ages.

To obtain a replacement index, we need to know (a) the number of female children born to each woman passing through the child-bearing period, in given conditions of fertility and (b) the number of these female children who will themselves survive through the child-bearing period in the succeeding generation, in given conditions of mortality.[2] This second factor gives the Net Reproduction Rate, the most convenient measure of net replacement. The net rate is computed by dividing the gross specific fertility rates by 1,000 and applying the quotient to the number of females in a life-table population derived from 1,000 female births annually and the mortality experience of a given year. If this Net Rate is at unity, the women of child-bearing age are replacing themselves in the next generation. If it is below unity the population is not at replacement level. Similarly, if the rate is above unity the population is more than replacing itself.

The significance of the Net Reproduction Rate may be illustrated by taking the Australian figure for 1933 (0.959) as an example. The rate of 0.959 does not mean that the population is declining, or that it will necessarily decline. As we have seen, births still exceed deaths, and they will in all probability continue to do so for at least a generation. A Net Reproduction Rate of 0.959 simply reveals that should fertility and mortality rates remain unchanged, (a) the women of child-bearing age in 1933 will not produce enough female children to replace them in the next generation; and (b) the population will ultimately begin to decline by approximately 4 per cent. every generation. This rate of decline will only apply when the population attains a "stable age composition," i.e., when, if there is no emigration or immigration in the future, and if fertility and mortality remain constantly at the 1933 level, the age and sex composition of the population becomes ultimately fixed. From that point, approximately 60 years after 1933, the reproduction rate of 1933 would indicate the actual rate of decrease.[3]

The net reproduction rate, therefore, is not a measuring rod of future population, because it is highly improbable that fertility and

[2] See Glass, *op. cit.*, p. 383.
[3] *Ibid.*, pp. 10-11.



GRAPH No. 1. Reproduction and Replacement Rates, Australia.[4]

[4] Basic figures from H. & M.R.C. Report, *op. cit.* p. 19.

mortality will remain constant. The rate is merely an index of replacement by which variations in fertility patterns can be gauged.

A study of Graphs A and B indicates the extent of the decline in Australian fertility since the close of last century. A continuation of fertility at the rate prevailing in 1881 would have led to a population increase of almost 90 per cent. in each demographic generation (approximately 30 years). But by 1930 the birth rate had fallen by 43 per cent., and the women of Australia were reproducing at a rate which, if maintained, would increase the population by only 13 per cent. each generation. The fall of the birth rate during the depression years was sufficient to bring the net reproduction rate below replacement level. As Graph B shows, the net reproduction rate recovered to unity in 1940, and in 1943 had reached the highest figure since 1928.

Does this suggest that the tide of Australian reproduction is rising again, and that besides being sufficient to maintain an increase of births over deaths it is sufficient to ensure the replacement of the population? Unfortunately it does not. It was stressed earlier that the increase in the birth rate between 1939 and 1943 was largely the result of increased marriages, and that the birth rate would fall again when the marriage boom (and the boom in first, and to a smaller extent second, births) had spent its force. In a situation such as that prevailing in Australia after 1939, the net reproduction rate (which takes account of age and mortality, but not marriage) would tend to rise because of the high specific fertility rates of women in the younger age groups. The net reproduction rate is reliable as a replacement index so long as marriage rates remain fairly constant, but when those rates change rapidly, as they did in Australia after 1939, there is a short-term distortion. This distortion may be eliminated by the calculation of the Nuptio Reproduction Rate, which is the Net Reproduction Rate adjusted to eliminate temporary fluctuations in the proportion of women married and in the numbers married at each duration of marriage.[5]

[5] H. & M.R.C., *Report*, p. 21. A useful indication of trends in the fertility of marriage may also be obtained by relating the births of a single year to each 1,000 marriages according to the duration of marriage in years. For a full exposition of this method see P. H. Karmel, "Fertility and Marriages, Australia, 1933-42," in *The Economic Record*, XX, No. 38 (1944), pp. 74-80. In this article Karmel, who has used the index of "Current Marriage Fertility," included both male and female births. The material for such a calculation is given in *Demography Bulletins* which classify confinements according to duration of marriage. A similar attempt to eliminate the effect of marriage fluctuations on the reproduction rate was made with Canadian data by Enid Charles. See her article, "The Nuptiality Problem with Special Reference to Canadian Marriage Statistics," in *The Canadian Journal of Economics and Political Science*, VII, No. 3 (1941), pp. 447-77.

Graph C illustrates the trend in the Nuptio Reproduction Rate, and shows that the reproductivity of Australian women, when corrected for fluctuations in marriage, remained below replacement rate until 1943, when the rate was at unity. In other words, to ensure future growth the pre-1930 fertility pattern will have to be recaptured. If this is not achieved, what will be the future of the Australian population?

Population projections which attempt to cover a long period are risky ventures, for they must be based on an assumed level of fertility, which the passage of time may prove to be unrealistic. But where the pattern of fertility has been constant over a long period, an immediate reversal of trends is unlikely to occur. Institutional changes, however vigorously enforced, rarely bring a sudden change in long-established social habits. In the demographic sphere, the experience of Soviet Russia supports this conclusion. In the long term, the fertility pattern of Australia will be conditioned by the social structure that will emerge and by the people's reactions to it; but during the next generation at least the demographic forces that have operated in the past will continue to exert their influence. For almost two generations the habit of birth control has been taking root and spreading in the Australian community, and to assume that this habit will be suddenly abandoned is to commit a sociological error. Even so, a projected population is not a prophecy, but merely a statistical estimate based upon certain assumptions regarding fertility. The most the demographer can do is to study closely past trends and to base his assumptions for the future upon these. In view of the steady decline of fertility in Australia during the present century, an assumption of rapidly rising fertility is to be rejected.

If we assume that the high level of marriages during the war years will keep reproduction above replacement level until 1950, and that there will be a gradual improvement in mortality, the average annual rate of increase of the Australian population (without immigration) in the decade 1940-50 will be in the vicinity of 0.67 per cent., compared with 0.55 per cent. between 1930 and 1940. After 1950, however, the rate of increase will diminish rapidly unless reproduction is further increased. With a stable net reproduction rate of 0.925 after 1950, and a continued slow fall in mortality, net natural increase will total only 6,000 in the decade 1970-80,

and thereafter a net decrease will set in.[6] A calculation based upon these assumptions reveals that the Australian population will increase from 7.03 millions in 1940 to a maximum of 8.20 millions in 1980. By the end of the century the total will have fallen to 7.98 millions.[7] Moreover, the maintenance of these fertility patterns in the future will bring little increase after 1950 in the 20-49 age group, important both in reproduction and economic development. Further, the legacy of the past decline in fertility will leave an increasing burden of aged people. Those aged 65 and over, who numbered half a million in 1941, will have doubled their numbers by 1980, when the maximum population will be attained, and will be even more numerous by the end of the century, despite a fall in the total population. The increase of "aged dependants," who must be supported by the people of working age, may have its repercussions on future fertility patterns.[8]

TABLE XXII

PROJECTED FUTURE POPULATION*

(Millions)

Age Group	1940	1950	1960	1970	1980	1990	2000
Under 20	2.37	2.45	2.46	2.25	2.28	2.22	2.12
20-49	3.14	3.40	3.38	3.50	3.36	3.39	3.20
50-64	1.01	1.20	1.28	1.45	1.50	1.37	1.55
65 and over	0.51	0.66	0.85	0.94	1.06	1.15	1.11
Total	7.03	7.71	7.97	8.14	8.20	8.13	7.98

* The projections assume a natural increase of 67,000 1940-50, and thereafter a net reproduction rate of 0.925, and a slow fall in mortality rates throughout the whole period. (Figures from H. & M.R.C., *Report, op. cit.*, p. 21.)

The projection given above (Table XXII) presents a slightly more optimistic picture of the future than the forecasts of S. H. Wolstenholme made in 1936.[9] Wolstenholme made three estimates. Assuming that natality and mortality would remain at the 1932-34 level and that there would be no migration, he projected a maximum population of 7.88 millions in 1977. A second estimate, which assumed a restoration by 1938 of the 1932-34 natality level, and

[6] An estimate based upon the two assumptions mentioned above gives the following decennial natural increase ((—) denotes decrease):

1940-50	67,000	1970-80	6,000
1950-60	27,000	1980-90	(—) 8,000
1960-70	17,000	1990-2000	(—) 14,000

(Figures from the H. & M.R.C., *Report, op. cit.*, p. 20.)

[7] *Ibid.*, pp. 20-21.

[8] This aspect will be discussed in Chapter XI.

[9] In *The Economic Record, op. cit.*, pp. 201-4. For another estimate, see G. R. Bruns, "Wartime Fertility and the Future Population of Australia," *Ibid.*, XIX, No. 37 (1943), pp. 185-202. Bruns' figures approximate closely to those in Table XXII, above.

thereafter a quinquennial percentage decrease in reproduction rates equal to half that experienced between 1925 and 1930, gave a maximum of only 7.42 millions in 1957. With the second estimate, even the influx of an average of 40,000 immigrants a year after 1938 would only enable a maximum of 8.94 millions to be reached in 1981.

The discrepancy between Wolstenholme's figures, calculated in 1936, and the projections of 1945 given above, emphasizes the difficulty of trying to anticipate future fertility trends. Wolstenholme's assumptions appeared at the time to be realistic, and even optimistic; yet changes in the reproductive pattern of Australia within a decade have shown his projections for the near-future population to be too low. Moreover, the rapid increase in births after 1939 will give an impetus to the rate of growth twenty years hence, and unless reproduction falls to unprecedented low levels, Wolstenholme's long-term figures will also be exceeded. Even if the net reproduction rate should fall steadily to 0.75 by the end of the century, a maximum population of slightly more than 8 millions will be attained about 1970.[10]

Changes in the reproductive habits of the Australian people may cause the actual population during the next few decades to deviate from the projections given above. A vigorous immigration policy may also raise the projected maximum by a million, or even by a greater figure. But unless reproduction is raised above replacement level a decline will ultimately set in. As stressed earlier, however, there is nothing in the Australian demographic scene to indicate that fertility in the next twenty or thirty years will be sufficient to provide a rapid rate of increase. The trends in fertility in Australia have been similar to those in other Western countries with high standards of living, widespread literacy and highly concentrated urban populations. As in other countries, too, the decline in reproduction has been due primarily to the decreased specific fertility rates of women over the age of thirty, and not to fluctuations in the marriage rate and the age of marriage, or yet to the disinclination of women to have at least one child. Any policy designed to prevent the decline anticipated in the above projections must aim at increasing third and subsequent births, for only thus can reproduction be raised above replacement level. In effect this means establishing a larger family unit, and a study of the structure of the Australian family and of the different patterns that exist among the various social, economic and cultural groups reveals the difficulties that will be involved in such a step.

[10] H. & M.R.C., *Report, op. cit.*, p. 21.

CHAPTER VII

FAMILY STRUCTURE IN AUSTRALIA

FROM a study of marriage ratios and of specific fertility rates, we concluded that the most significant factor in the decline of the Australian birth rate has been neither fluctuations in the age of marriage, nor the decrease in the fertility of women under the age of thirty, but the decrease in the size of the family. A study of completed families could refer only to marriages contracted not later than approximately 1930, as in many cases reproduction does not cease until more than a decade after marriage. The gross reproduction rate, however, does provide an estimate of the number of children that would be born to each woman per reproductive generation at current levels of fertility. Thus the rate of 2.65 in 1881 represents an average total issue of 5.5 children (male and female) for each woman, and the rate of 1.080 in 1939 an average of only 2.2 children. Let us now consider in more detail the change in the structure of the Australian family which is implied in these figures.

An approximation of the number of women who, at current levels of fertility, can expect to have at least one or more children in the course of their reproductive lives can be obtained by calculating the reproduction rates of women by order of birth. The method involves calculating the gross reproduction rate for the first, second, third, etc., child respectively, but in this case male and female births are included since the main object is to ascertain family sizes, and not merely to indicate fertility.[1] This method gives an estimate of the number in each thousand women between ages 15 and 49 who, on the basis of fertility of a given year, will have a first child, a second, a third, etc., in the course of their lives. By subtraction the size of the families of a thousand women can be obtained. Thus, if it is found that out of every thousand women 800 will have a first child, 700 a second and 500 a third, 200 women will have no children in the course of their reproductive lives, 100 will have a family consisting only of one child and 200 will have

[1] The data for such calculations is available in the Commonwealth *Demography Bulletins* (Births, Ages of Mothers and Previous Issues).

a family of two children.[2] But the figures thus calculated refer only to children legitimately born of a single marriage. To take into account children born to parents who later marry, some estimate of legitimation is necessary. In the adjustment made for legitimation in the table given below (Table XXIII) it has been assumed that 14 per cent. of all illegitimate children were legitimised and that these legitimised children were first births.[3] The inclusion of legitimised children therefore gives a table of families which would be produced by parents who, at some time or another, marry.[4]

TABLE XXIII

REPRODUCTION RATES PER 1,000 WOMEN BY ORDER OF BIRTH—AUSTRALIA, 1909-1940 (FIVE YEARLY AVERAGES)*

	1	2	3	4	5	6	7
1909-13 -	817	626	502	388	291	214	157
1911-15 -	859	654	508	385	284	209	151
1922-26 -	787	618	434	296	207	146	103
1925-29 -	761	578	409	281	189	128	91
1929-33 -	675	528	351	235	157	106	71
1934-38 -	724	495	304	191	121	81	53
1936-40 -	784	531	304	180	111	73	47

* NOTE: In the case of first births, the legitimation rate used by Charles, i.e., 14% of all illegitimate births, has been applied.

The rates for 1934-40 were: 1934, 12.2; 1935, 12.0; 1936, 12.6; 1937, 12.4; 1938, 12.2; 1939, 11.9; 1940, 12.2.

Remarriage is not included in this table.

Figures for 1909-33 are from Enid Charles, *op. cit.*, p. 251, and those for 1934-40 are calculated from tables given in Demography Bulletins: "Births, Mothers' Ages, Duration of Marriage and Issue," and from official estimates of population.

Table XXIII indicates that the reproduction rate of first births fell steadily from 1911 until the years of economic depression, and thereafter increased rapidly, the rate for 1940 (830) being the highest since 1922 (836). The rate for second births shows a similar trend, but in this case the lowest point is reached slightly

[2] This method was used by Enid Charles in her paper, "The Changing Structure of the Family in Australia," first published in *Economica*, IV, No. 15 (1937), p. 245 et seq., and reprinted in *Political Arithmetic* (ed. L. Hogben), London, 1938, pp. 213-50.

[3] Here the percentage of legitimation (14 per cent. of all illegitimate births) used by Enid Charles, *op. cit.*, has been adopted. Charles estimates that 90% of legitimised children are first births, so that the number of second and subsequent illegitimate children who later become legitimised would be small and would have slight effect upon the number of families with two or more children.

[4] The figures which follow are only taken to the year 1940. Figures for later years would give a false impression of the place of first and second births on account of the abnormally high marriage rates prevailing between 1940 and 1942. Furthermore, only provisional estimates of the female population are available for years later than 1941.

later than for first births. The reproduction rates for first and second births, and the first two columns of Table XXIV, showing the number in each thousand women who at age 49 will have either no legitimate children, or one child, reflect clearly the fluctuations in the marriage rates. Nevertheless, the steady fall in the reproduction rate of first births and the increase in childless women between 1911 and 1929, during which period marriage ratios were comparatively stable, suggest an increase in the sterility of married women. Nor does the contrary trend between 1929 and 1940 imply

TABLE XXIV

SIZE OF FAMILY PER 1,000 WOMEN—AUSTRALIA. 1909-40 (FIVE YEARLY AVERAGES)*

	0	1	2	3	4	5	6
1909-13 -	183	191	124	114	97	77	57
1911-15 -	141	205	146	123	101	75	58
1922-26 -	213	169	184	138	89	61	43
1925-29 -	239	.183	169	128	92	61	37
1929-33 -	325	147	177	116	78	51	35
1934-38 -	276	229	191	113	70	40	27
1936-40 -	216	253	227	124	69	38	26

* These figures obtained from table of yearly reproduction rates by order of birth per 1,000 women by subtraction. References as for previous table.

a reduction of sterility. By the use of nuptial tables derived from census figures, Enid Charles estimated that the percentage of women who, at current levels of nubility, would marry by the age of 50 was 88 in 1911 and 84 in 1931. In these two years the percentages of fertile women calculated from reproduction rates were 80.5 and 66 respectively. Thus measured statistically according to current levels of nubility and natality, the percentage of married women who would remain childless at age 50 was 8.5 in 1911 and 21.5 in 1931.[5] Now in 1938 the marriage rate of 9.05 was higher than in 1911 (8.79), and the probability of marriage at age 50 was approximately 90 per cent., and if we apply this ratio to the current rate of reproduction for first births (78.0), the percentage of married women who would remain childless at age 50 is 13.3, a figure somewhat lower than that of 1931, but considerably above that of 1911.[6] The figures for 1931 and 1938, however, would both

[5] Enid Charles, *op. cit.*, p. 268.

[6] The following table illustrates the argument set out above:

PER 100 WOMEN AGED 50.

Year	Married	Fertile	Sterile	Sterile as Per Cent. of Married
1911	88	80.5	7.5	8.5
1931	84	66	18	21.5
1938	90	78	12	13.3

be affected by the tendency of women marrying during the depression to postpone the birth of their first child, and the true level of sterility of marriages in the immediate pre-war years (1936-39) was probably between 15 and 20 per cent.[7]

Enid Charles concluded from her study that the fall in Australian fertility between 1911 and 1933 was due in about equal measure to the increasing proportion of sterile women and to the reduction in the numbers of large families. The increase in fertility between 1933 and 1940, and the reduction in the proportion of women bearing no children from 325 (1929-33) to 216 (1936-40) has been due primarily to the increase in the marriage rate from 7.0 in 1933 to 9.2 in 1939, and has not provided any clear evidence of a reduction in sterility. Over the whole period (1911-1940) the proportion of childless marriages appears to have increased by at least fifty per cent. Nor is there any good reason for assuming that there will be a marked decline in the future in the sterility of marriage. The increased efficiency and widening knowledge of contraceptives are spreading the opportunities for the voluntary prevention of the birth of one child. On the other hand there is no clear evidence of an increase in involuntary sterility of marriage. It is generally accepted that some 7 to 10 per cent. of all marriages of all ages are unfruitful because of the involuntary sterility of either husbands or wives,[8] and if this figure is applied to Australia, the conclusion follows that only some 90 per cent. of marriages capable of reproduction are fertile. If voluntary sterility could be completely eliminated in the case of the remaining 10 per cent., and if these marriages resulted in families equal in size to the average now prevailing in Australia (approximately 2.5 children),

[7] When first births occurring between 1936 and 1941 are related to marriages of all ages contracted in 1935, some 20 per cent. of those marriages had borne no issue in six years. Approximately 97 per cent. of all first births occur within six years of marriage. This figure approximates closely to estimates for 1930 in the United States of America. (See R. Pearl, *op. cit.*, pp. 165-6). Data for a comparative survey of sterility is most inadequate, because many countries lack statistical information outside census data. For a summary of attempts to estimate sterility in British-speaking countries, see D. V. Glass, *op. cit.*, pp. 421(q) and 422(r).

[8] R. R. Kuczynski, however, in a detailed analysis of census data on "Childless Marriages," in *The Sociological Review*, XXX (1938), No. 2 (pp. 124-44), No. 3 (pp 213-35) and No. 4 (pp. 346-64), states that involuntary sterility is much rarer than is generally believed. He concluded that of the women who had contracted their present marriage (1938) before the age of 25 and who had been married more than 10 years, the proportion of wives who had not had a live-born child was:

England and Wales, 1911 - - 5.2 per cent.
Scotland, 1911 - - - - 4.3 „
Union of South Africa, 1921 - - 3.3 „ (Europeans).

The rates would of course be considerably higher when marriages of all ages are averaged.

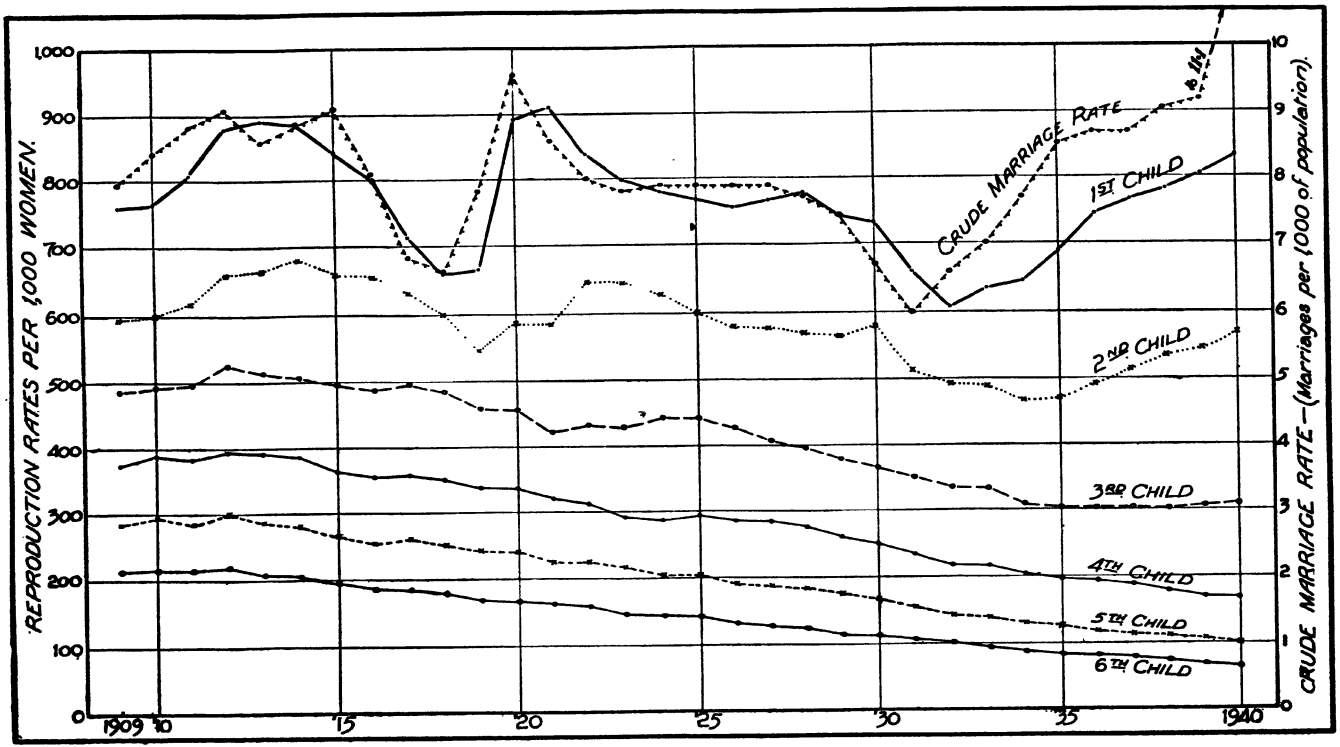
they would add some 15,000 children to the population during their reproductive years.

But so long as voluntary control remains the basis of any pro-natalist policy in Australia, it is unlikely that voluntary sterility will be reduced much below 10 per cent., and the main burden of family rearing will be the responsibility of the remaining 80 per cent. of fertile women. The tables of reproduction and family structure given above reveal that of these 80 per cent. an increasing proportion is limiting the size of the family to two children.

The Reproduction Rate for second births (Table XXIII) and the proportion of one-child families derived from this rate (Table XXIV) also reflect the changes in the rate of marriage. At first sight it appears that between 1929-33 and 1936-40 those women who had one child were hesitating to have a second, because the ratio of second to first births, which remained fairly constant between 77 and 78 during the twenty years before 1933, decreased to 69 in the five-year period 1936-40; but this ratio will increase in the immediate future, as the marriage rate declines and as many women who had their first child in recent years have a second. It cannot be concluded from the above tables that there is an increasing tendency for women who have a first child to refrain from bearing a second.

When the reproduction rates for third and subsequent births are considered the extent of the change in the structure of the Australian family is more clearly revealed. In the case of third births the decline was clearly in evidence before the years of economic depression, and did not recover before 1940; while for all later births a continued decline is apparent throughout the whole period 1909-1940, and becomes increasingly marked as the size of the family increases. That this decline is not related to changes in marriage ratios is clearly revealed in the following graph.

This graph, and the table of family size given above, reveal strikingly the growing importance of the small family in Australia. By using the data given in Table XXIV, but excluding childless women, we may calculate the number out of every 1,000 children born belonging to families of different sizes, according to the fertility of given years. (See Table XXV.) Between 1909-13 and 1929-33 there was no marked change in the proportion of only children, but between 1929-33 and 1936-40 the proportion increased by 84 per cent. This increase, of course, again reflects the high marriage rates prevailing in the latter quinquennium, and the proportion of only children will probably fall in the near future.



GRAPH No. 2. Yearly Reproduction Rates—according to order of birth per 1,000 women.

Of greater significance is the increase in the proportion of children born to families of two and three children and the steady fall in the proportion born to families of four and more children. Between 1909-13 and 1929-33 the proportion of children born to the families of two increased by more than 100 per cent., with a further increase of 37 per cent. between 1929-33 and 1936-40. A similar though smaller increase also occurred throughout the whole period in the case of all children born to families of three children, the percentage rates being 49 between 1909-13 and 1929-33, and 14 between the latter period and 1936-40.

The most striking feature is the decrease in the number of children coming from families of four and more children. In 1909-13 more children came from four and five child families than from families of any other size: in 1929-33 and 1936-40 the greatest number of children came from families of two children. In 1909-13, one, two and three child families accounted for only about 24 per cent. of all children born, compared with 38 per cent. in 1933 and 51 per cent. in 1936-40. While the future may bring changes in the proportion of children in each family between first and third children, it is unlikely in view of the long-term decline in fourth and subsequent births, that the percentage of all children born to families of less than four children will be greatly reduced. So long as the pre-war pattern of fertility remains, approximately one-half of the Australian children will belong to these small

TABLE XXV

NUMBER OUT OF EVERY 1,000 CHILDREN BORN BELONGING TO FAMILIES OF DIFFERENT SIZES, ACCORDING TO THE FERTILITY OF 1909-13, 1929-33 AND 1936-40

Size of Family	1909-13	1929-33	1936-40
1	58	65	120
2	75	157	215
3	104	155	176
4	117	139	131
5	117	113	90
6	104	93	74
7	102	72	56
8	80	60	42
9	68	49	30
10	60	31	19
11 and over	115	66	47
Percentage of Children Born to Families of 1, 2 and 3 Children	23.7	37.7	51.1

families, and the majority of Australian women will cease reproduction on the birth of the third child. According to the fertility pattern prevailing in 1940, 83 per cent. of all women bear no children, or cease reproduction on the birth of the third child, compared with 81 per cent. in 1936, and only 61 per cent. in 1911.

It has already been pointed out that the decline in fertility in the present century has not been accompanied by any tendency among women to postpone marriage. Are women, then, ceasing reproduction at an earlier age than previously, or are they lengthening the interval between marriage and the birth of each child? The average age of mothers on the birth of all children declined from 29.7 years in 1909 to 28.4 years in 1940, but as these figures refer only to women bearing children in these two years and are affected by the marriage rates and the proportion of first births, they do not provide a satisfactory answer to the question.

An analysis of the interval between marriage and the birth of the first child (Table XXVI) indicates that family control is being increasingly applied in early married life, not to avoid, so much as to delay, the birth of a child. In 1911, 61.8 per cent. of all first births occurred in the first year of marriage, compared with only 41.7 per cent. in 1940. During the first twenty years (1911-31) the proportion fell by approximately 19 per cent., but between 1931 and 1941 the decline was more rapid, the proportion falling by 23 per cent.

TABLE XXVI

FIRST BIRTHS AND INTERVAL SINCE MARRIAGE
AUSTRALIA, 1911-1942
PER CENT. OF TOTAL FIRST BIRTHS

Year	1st Year	2nd Year	3rd Year	In 1st 2 Years	In 1st 3 Years
1911	61.8	23.9	6.8	85.7	92.5
1913	59.9	25.1	7.7	85.0	92.7
1916	57.7	25.9	7.6	83.6	91.2
1919	55.1	24.4	8.2	79.5	87.7
1922	53.4	28.1	8.6	81.5	90.1
1925	52.6	27.0	8.1	79.6	87.7
1928	52.8	25.5	9.5	78.3	87.8
1931	51.0	25.7	10.0	76.7	86.7
1934	51.8	25.2	9.3	77.0	86.3
1937	49.5	28.6	11.5	78.1	89.6
1938	44.7	28.8	12.2	73.5	85.7
1939	43.1	29.2	12.5	72.3	84.8
1940	41.7	29.2	12.9	70.9	83.8
1941	39.9	31.5	12.4	71.4	83.8
1942	38.0	31.7	13.9	69.7	83.6

The decline was more marked in pre-marital conceptions than in post-marital. The percentage of all first births occurring within eight months of marriage fell from 31.5 in 1911 to 18.1 in 1941, compared with a decline from 30.4 to 21.7 over the same period in the case of births occurring 9-12 months after marriage. Nevertheless, the decline in post-nuptial conceptions is sufficiently marked to indicate a growing tendency among newly married couples to plan their families from the outset.

The rapid fall in the proportion of first births occurring during the first year of marriage has been partially offset by the increased proportion occurring during the second year of marriage, but this increase has been insufficient to prevent a steady decline in the percentage of first births occurring during the first two years, from 85.7 per cent. in 1911 to 71.4 per cent. in 1941. On the other hand the proportion of first births occurring in the third year has almost doubled (from 6.8 per cent. in 1911 to 12.4 per cent. in 1940). Even higher percentage increases have occurred for later years.

The rapid reduction after 1934 in the proportion of first births within one year of marriage may be accounted for in part by the crop of first births postponed during the depression, but occurring

TABLE XXVII

FIRST BIRTHS PER 1,000 FEMALES IN EACH AGE GROUP—AUSTRALIA

Age Group	1911	1924	1934	1936	1938	1940
15-19	15.40	16.95	15.96	16.48	15.91	15.86
20-24	59.07	60.80	48.70	55.07	57.51	61.33
25-29	48.61	47.06	38.83	46.57	49.55	53.00
30-34	22.45	20.88	16.13	19.70	22.06	23.47
35-39	9.05	8.61	5.30	6.85	7.07	7.94
40-44	2.40	2.22	1.34	1.37	1.51	1.64
45-49	.18	.19	.08	.08	.08	.07
15-49	157.16	156.71	126.34	146.12	153.69	163.31

	1934 as % of 1911	1940 as % of 1934
15-19	104.2	99.4
20-24	82.3	126.0
25-29	76.5	136.6
30-34	71.4	145.5
35-39	59.6	157.9
40-44	55.4	122.4
45-49	45.0	87.5
15-49	80.3	129.3

after 1936. When the specific fertility rates for first births are considered (Table XXVII), the increase in the rates for women aged 30 and over is quite disproportionate to the increase in the marriage ratios of these groups. First births per 1,000 women aged 30-34 were 45 per cent. higher in 1940 than in 1934, and in the case of women aged 35-39 they were 58 per cent. higher. But even when allowance is made for the abnormalities caused by the economic depression, the long-term trend towards delayed first births, which was apparent before the depression, is significant.

The increasing interval between marriage and first births is more marked than that between first and second births, third and fourth and later births. The average interval between first and second births remained fairly constantly between 2.2 and 2.3 years between 1911 and 1940, except immediately after the 1914-18 War when it was temporarily reduced to 1.9 years. The interval between second and third births increased from 1.6 years in 1911 to 2.2 years in 1934, but decreased again to 1.9 in 1940, while the interval between third and fourth births tended to decrease rather than increase during the thirty years preceding 1941. The average interval between births is still approximately two years, and the most marked change since 1911 in the spacing of children has been the increased average period between marriage and the birth of the first child.

Now we have already pointed out from the study of reproduction rates that if the family structure of 1940 prevails in the future, 83 per cent. of women will cease reproduction on the birth of the third child. Thus, if we assume that the average age of marriage will remain at the current levels of approximately 25 years, all but a small proportion of Australian women will complete their family by the age of thirty-three years, even though the interval between marriage and the first birth may increase still further. There is a marked decline in the ability of women to conceive after the age of 35,[9] but many could bear at least one child, and probably two children, after this age if they so desired.

Birth control, then, is being used to prevent extra-marital births, to postpone the arrival of the first child conceived after marriage, and to limit the size of the completed family, rather than to increase the interval between births. The two groups to whom birth control is of the greatest importance to-day are the young adults and those approaching middle age. This tendency of women to cease reproduction in their middle thirties may suggest that measures to

[9] See R. Pearl, *op. cit.*, p. 31 ff., for a careful analysis of the biology of fertility.

increase the size of the family should be directed at lowering the age of marriage and shortening the period between marriage and the birth of the first child. These measures, however, would probably merely encourage the termination of reproduction at an earlier age than at present unless they were supplemented by a wider social policy designed to minimise what an American demographer has aptly called "the nuisance value of the large family."

The first aim of any pro-natalist policy designed to raise fertility above replacement level must be an increase in third and subsequent births. The most significant feature revealed by the study of family structure in Australia is not the tendency towards increased sterility, but the long-term trend, unaffected by fluctuations in the marriage rates and birth rates, towards a reduction in family size. The significance of this latter factor in the decline in fertility has also been observed in other countries. In France, for example, where birth control has been widely practised since the early nineteenth century, there appears to have been no significant increase since 1891 in the proportion of married women having no living child, or families of one or two children, but the proportion having families of three and more children has steadily decreased. German studies reveal the same trends.[10] In other countries, such as the United States of America, in which a tendency towards increased sterility has been observed, this increase has been relatively slight and can be responsible for only a fraction of the total decline in fertility.

An analysis of the Australian scene suggests that, given reasonable economic and social conditions, the majority of the Australian women will marry and have at least one, and probably two children. But this is insufficient for the replacement of the population. Under current conditions the birth of an average of about 2.25 children per woman would be necessary to keep the Australian population from eventual decline. But only about 85 per cent. of women marry before the age of 45, so that replacement requires an average of 2.65 births per marriage. Assuming that the level of sterility (both voluntary and involuntary) will be approximately 15 per cent. in the future, fertile married women will have to bear an average of 3.1 children to replace the existing population, and there is little evidence so far to suggest that this level of fertility will be established. Moreover, the experience of the depression years indicates that when marriages are at a minimum a concomitant tendency, and an even more important one, is for those women who do

[10] J. J. Spengler, *op. cit.*, 1938, pp. 61-64.

marry to postpone conception. If this postponement were possible in 1933, the trend may be more marked in any future depression owing to the spread in the knowledge, and the increased efficiency, of birth control methods. If post-war economic and social conditions can be stabilised at the immediate pre-war level the problem of first and second births will perhaps solve itself; but there is no assurance that such stabilization will bring any relief to the problem of later births.

The structure of the family in Australia, as far as it can be gauged from recent figures, does not provide grounds for optimism concerning future growth. In the previous chapter it was pointed out that, because of the decrease in women in the fertile age groups, an increase in births can only be secured by raising fertility beyond the level of 1941 and by the immigration of young people between the ages of 20 and 30. The entry of the latter would be of considerable help to Australia, by repairing the gaps that have developed in the age structure of the population as a result of the serious decline in Australian fertility since the early twenties, but to be of permanent value from the demographic point of view these immigrants would have to adopt a fertility pattern above replacement level; but as we shall see in Chapter IX, immigrants do not set the standard of fertility patterns, but tend to follow the habits of their land of adoption.

It is tempting to suggest that remedial measures adequate to check recent trends could be prepared without further analysis of the Australian scene. Certain important lines of approach have already been suggested, such as measures to keep marriages at a high level and to increase third and subsequent births. These in themselves—and particularly the latter—present a formidable task, for they imply a change of the established biological and sociological concept of the desirable family size; but the problem goes deeper, as is shown by the wide differentials in fertility in the many social and economic groups which comprise the Australian community.

CHAPTER VIII

DIFFERENTIALS IN FERTILITY

THE dominant feature of modern western civilization is the large city. In 1800 not a single city in the Western world had a population of more than one million. In 1930, as the result of what Lewis Mumford calls "the feverish concentration of capital and the military and mechanical means of exploitation," there were twenty-seven cities each harbouring more than a million people. Aristotle stated that men come together in cities in order to live, and that they remain together in order to live the good life. But the growth of the modern metropolis is not the result of the voluntary migration of people in search of the good life. It is rather the result of the centralization of the means of production and exchange and the mechanization of almost every phase of life. These developments freed the vast majority of the people from direct contact with the soil and caused them to sell their labour in order to exist; and the purchasers of their labour were the merchants and manufacturers whose warehouses and factories were concentrated in the cities which were springing up near the navigable sea ports and rivers.

The low fertility of the metropolis, compared with rural areas, is not a modern phenomenon, nor yet one peculiar to those countries with advanced technologies. Although statistical information is insufficient to measure the exact differential in fertility in the Roman Republic towards the close of the second century B.C., the writings of Polybius and others suggest that within the capital, where the mechanical benefits, the luxuries and comforts were most in evidence, the birth rate was considerably lower than in the provinces. In England before the rapid development of the industrial system in the late eighteenth century, the largest cities appear to have had low fertility. Gregory King estimated in 1696 that the marriage rate was higher in London than the rural areas, but that births per marriage were lower. In the modern world, too, wide differentials in fertility exist between the urban and rural areas of countries whose people are no more industrially advanced to-day than were those of Western Europe two centuries ago. In

India, for example, the fertility of cities with 50,000 and more people was estimated in 1931 to be only 68 per cent. of the average for the whole of India. In Chile in the same year a differential of 41 per cent. was apparent.[1] In the Ukraine in 1926-27 the gross reproduction rate of urban areas was only 1.53 compared with 2.77 for rural areas—a difference of 45 per cent.[2]

All these regions of the contemporary world quoted above are areas in which high birth rates prevail, and in which the majority of the people are living in rural areas. Where this sociological pattern prevails a wide differential between urban and rural areas is usually not a serious deterrent to rapid growth. But in areas where the majority of the people live in large urban areas, the capacity for future growth will be conditioned to a considerable degree by urban fertility.

In the majority of Western countries enjoying high material standards of living and with upwards of 70 per cent. of their people engaged in non-rural occupations, fertility is near, or even below, replacement level; yet there remains a wide difference in fertility between the urban and rural areas. The infertility of the modern metropolis is well illustrated in the case of the United States of America, where only three of the 101 cities with populations of 100,000 and over had fertility rates in 1931 sufficient to keep them at replacement level.[3] In 1930 the differential between rural and urban areas was described as the most conspicuous phenomenon in the demographic transition of the United States, urban areas having a gross reproduction rate of only 0.87, compared with 1.47 for rural areas—a difference of almost 41 per cent.[4] A further decline in American fertility of some 15 per cent. during the decade after 1930 left the urban-rural differential almost unchanged.[5]

Similar figures could be quoted for other countries. For example, German cities of 100,000 and more population had an average net reproduction rate in 1933 of only 0.51 compared with 0.93 for the less densely populated areas. In 1931 the County of London had a gross rate of 0.81, compared with 1.03 for rural areas.[6]

An examination of rural-urban differentials in Australia reveals

[1] K. Davis, in *Milbank Memorial Fund, op. cit.*, p. 48.
[2] Enid Charles, in *The Sociological Review, op. cit.*, p. 243 ff.
[3] Lewis Mumford, *The Culture of Cities*, London, 1940, p. 282.
[4] F. Lorimer and F. Osborn, *Dynamics of Population*, New York, 1934, pp. 28, 30.
[5] A. J. Jaffe, "Urbanization and Fertility," in *American Journal of Sociology*, XLVIII, No. 1 (1942), pp. 48-60; and P. M. Hauser, "Population," *Ibid.*, XLVII, No. 6 (1942), pp. 815-828.
[6] Enid Charles, *loc. cit.*

a similar picture. A feature of the distribution of the Australian population is the high proportion living in the six capital cities. Between 1911 and 1933 the urban population, expressed as a percentage of the Australian total, increased from 57.83 per cent. to 62.33 per cent. In the decade after 1911 the increase in urban areas was five times that of the rural increase. From 1921 to 1933 the

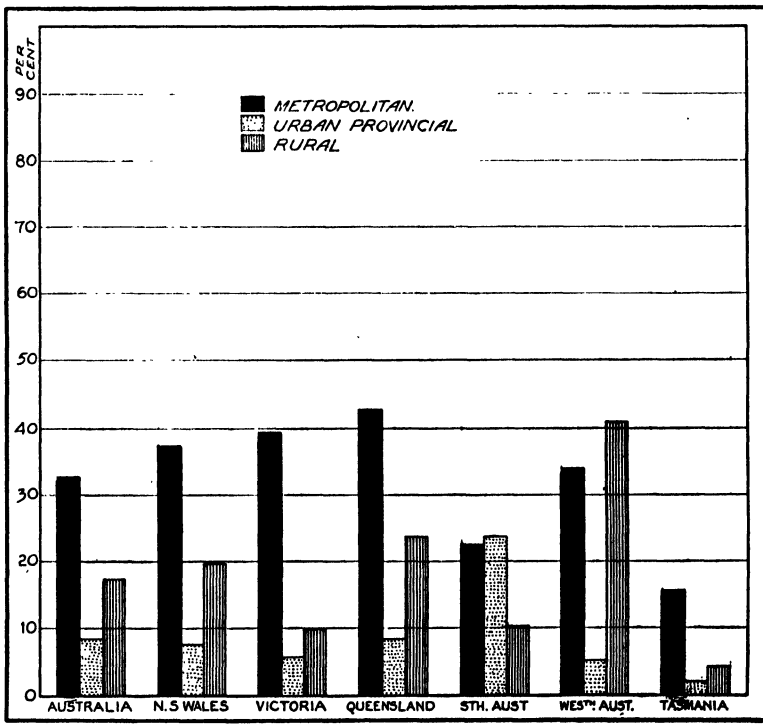


DIAGRAM No. 1. Percentage Increase, Urban and Rural Areas, Australia, 1921-1933.

urban gain was only twice the rural gain. The relatively slower rate of increase in urban areas from 1921 to 1933 was not attributable to changes in fertility patterns, so much as to the economic re-organization following war and to economic depression, both of which tended to prevent the movement of country youths and labourers to the towns. In Western Australia these factors and the large-scale settlement of immigrants on the land caused a more rapid increase in rural than in urban areas. But the decrease in

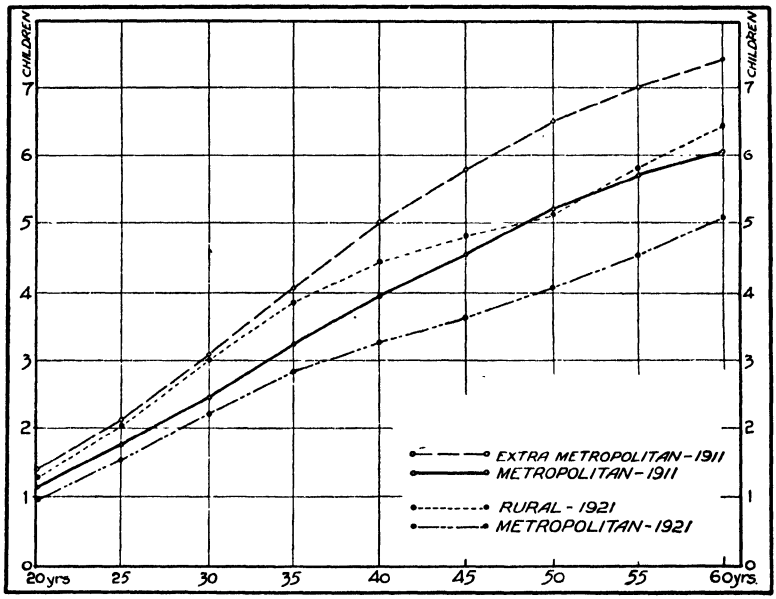
the rate of urbanization between 1921 and 1933 was the result of a slower growth rather in provincial towns than in metropolitan areas, South Australia being the only exception in this regard. The capital cities, which absorbed almost 83 per cent. of the total increase in the Australian population from 1911 to 1921, still absorbed 71 per cent. in the period 1921-1933. This tendency towards metropolitan concentration goes back further than the twentieth century. The proportion of the Australian population living in the six capital cities increased steadily from 32 per cent. in 1881, to 38 per cent in 1911, and to 46.8 per cent. in 1933. In 1939 the estimated figure was 47 per cent.

Rural-urban differentials in Australian fertility and family structure are not new. They were clearly in evidence in 1911, when only one Australian city (Sydney) had a population of more than 500,000. The Commonwealth Census of 1911 and of 1921 provides excellent material for a study of differentials, for in those years the householder's schedule asked for the number of children, living or dead, from any existing or previous marriage, and for the age of the mother. From this information the average issue of wives for each year of age and for each five-year age group was calculated, thus providing an excellent picture of both current fertility, and, in the case of women aged 45-49, the completed family of the married women. The average issue of wives aged 45-49 represents a picture of the fertility patterns prevailing during the previous twenty years.

The most serious defects of this figure of "average issue" as a measure of differentials in fertility are that it does not allow either for variations in the marriage rate of women among the different groups under consideration, or for migration. No figures can be secured which would permit a calculation to allow for migration, because neither the age, marital status nor issue of migrants is given. Consequently in figures giving the "average issue of wives" it must be assumed that some at least of the children would have been born outside Australia, and that some of the children attributed to mothers living in urban areas would have been born in rural areas, and vice versa. Particularly would this be so in the 1921 census, because, first, of the considerable volume of immigration in the years immediately preceding the war, and, second, of the considerable internal migration during and immediately following the war of 1914-18.

Thus, a comparison of the "average issue" of rural and urban wives from the Census of 1911 and of 1921 reveals only the issue

of wives who happened to be living in urban and rural areas at the time of the Census. It does not reveal where the children of these wives were born, and therefore is not a true estimate of the fertility pattern of rural and urban areas in those years. Nevertheless a study of average issues for 1911 and 1921 does indicate a striking difference in the size of the family of women then living in urban and rural areas. The difference is apparent in all age groups above 21-24, and is particularly striking in the case of the completed families of wives aged 45-49.



GRAPH No. 3. Age and Average Issue of Wives in Metropolitan and Extra Metropolitan Areas, Australia, 1911 and 1921.

No direct comparison may be made in the above figures between 1911 and 1921, because in the former year all towns outside the capital cities are included in the "extra metropolitan" group, while in the latter "rural" excludes all towns incorporated for local government purposes.[7] But in 1911 the provincial towns were on the whole small enough to be essentially

[7] Nor can provincial-urban figures be extracted from the 1911 census figures to permit a satisfactory comparison with 1921, because of the change in the later year of the definition of provincial-urban.

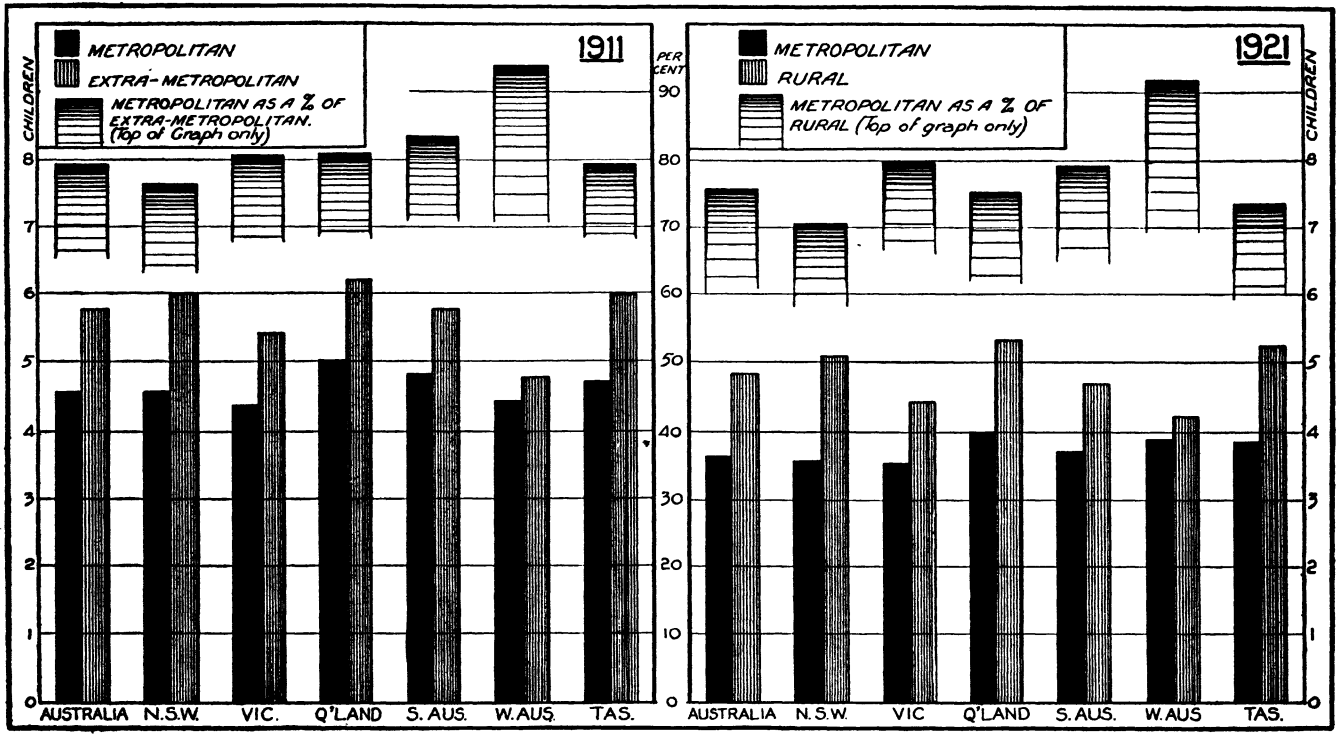


DIAGRAM No. 2. Average Issue of Completed Marriages, 1911 and 1921 (i.e., of wives aged 45-49).

rural in their sociological pattern, so that the two groupings given above refer essentially to city and rural areas.[8] The differential between the two areas is marked: the average issue of wives resident in metropolitan areas being only 79 per cent. of that of the rest of Australia in 1911, and only 76 per cent. of that of rural areas in 1921. The differential is smallest in Western Australia, but in both years this is attributable to low rural and not to high metropolitan fertility.

Between 1911 and 1921 the decline in the size of the completed family appears to have been almost as great in the extra metropolitan areas as in the cities. In 1921, however, family size in metropolitan areas was still sufficient to ensure city growth without the influx of immigrants from overseas or from rural areas. In that year the gross reproduction rate for the whole of Australia was 1.51, and for metropolitan areas 1.36. The net reproduction rate for the Australian capital cities was approximately 1.13, compared with an all-Australian rate of 1.31.

Unfortunately the 1933 census, with its concentration upon industrial matters rather than the family, provides no data for a study of the completed family, but a study of reproduction rates in 1921 and 1933 indicates that after 1921 the fertility of the capital

TABLE XXVIII

GROSS REPRODUCTION RATES—METROPOLITAN AND EXTRA-METROPOLITAN AREAS—AUSTRALIA, 1921 AND 1933*

Area	Female Gross Reproduction Rates					
	Whole Area		Metropolitan		Extra-Metropolitan	
	1921	1933	1921	1933	1921	1933
Australia	1·512	1·051	1·361	0·792	1·680	1·326
New South Wales ..	1·574	1·060	1·342	0·871	1·793	1·355
Victoria	1·285	0·952	1·297	0·751	1·488	1·244
Queensland	1·660	1·171	1·552	0·832	1·723	1·359
South Australia	1·450	0·936	1·294	0·727	1·596	1·210
Western Australia ..	1·633	1·164	1·618	0·921	1·687	1·461
Tasmania	1·736	1·273	1·711	1·017	1·762	1·388

(*) These rates were calculated by the application of Australian specific fertility rates in 1921 and 1933 to the female population in metropolitan and extra metropolitan areas, because births by age of mother are not available for these divisions. For a study of this method of calculating the G.R.R. see D. V. Glass, *op. cit.*, pp. 387-99 (Substitute Reproduction Rates).

8 The differential in the average issue of wives aged 45-49 resident in 1921 in metropolitan and provincial-urban areas was comparatively slight, the figure for the former areas being 4.35, compared with 4.85 for the latter.

cities fell more rapidly than that of extra-metropolitan areas. Between 1921 and 1933 the gross reproduction rate of Australia fell by 30 per cent. The rate of the capital cities fell by 42 per cent., compared with only 21 per cent. in the case of the extra-metropolitan areas. With the exception of Tasmania, the rate for each capital city was over 35 per cent. below the rate for the remainder of its State. For the whole of Australia the gross reproduction rate of the capital cities in 1933 was only 0.792, compared with 1.326 for extra-metropolitan areas—a difference of 40 per cent., compared with 19 per cent. in 1921.

The broad divisions of "metropolitan" and "extra-metropolitan" cannot safely be broken into smaller units in 1921, because in that year births were still registered by place of birth and not by residence of mother. Even in these two divisions in 1921 the metropolitan areas probably included some babies born to mothers from extra-metropolitan areas. Hence the "metropolitan" figures for

TABLE XXIX

GROSS REPRODUCTION RATES
AUSTRALIAN CITIES, TOWNS AND RURAL AREAS, 1933*

Australia	1.052
Capital Cities—	
Sydney and Suburbs (1,235,267)	0.871
Melbourne and Suburbs (991,934)	0.751
Adelaide and Suburbs (312,619)	0.727
Brisbane and Suburbs (299,748)	0.832
Perth (including Fremantle) (207,440)	0.921
Hobart and Suburbs (60,406)	1.017
All Metropolitan	0.792
Extra Metropolitan—	
Towns over 45,000:	
Newcastle and Suburbs (104,485)	0.977
Towns 35,000-45,000	1.073
25,000-35,000	1.077
15,000-25,000	1.196
12,000-15,000	1.165
10,000-12,000	1.089
7,000-10,000	1.319
5,000- 7,000	1.311
Total Towns—5,000-45,000	1.171
Towns under 5,000 and Rural Areas	1.376

* Launceston (Tasmania, 32,833), Devonport (Tasmania, 5,151), Horsham (Victoria, 5,273), Bunbury (Western Australia, 5,140) and Canberra (7,325) have been omitted because births from these areas were not available when the calculations were made.

these two census years given in Table XXVIII may be slightly too high, and the extra-metropolitan figures slightly too low, but the margin of error is not likely to be significant. In 1933 births were registered by residence of mother, so that subdivisions into smaller groups can be made.

When Australian towns are grouped according to their size in the census year, and their gross reproduction rates calculated, there is a tendency for the rate to rise as size decreases. In 1933 Hobart (population 60,400) had the highest reproduction rate (1.017) of the six capital cities; while Perth (207,400), next in size to Hobart, had the second highest rate (0.921). Newcastle, which is classified among the extra-metropolitan areas in Table XXIX, but which in size was midway between Hobart and Perth in 1933, had a rate of 0.977. A study of groups of Australian towns with populations between five and forty-five thousand reveals that all of these groups had gross reproduction rates in 1933 above those of Newcastle or the capital cities. Only towns with 10,000 and fewer inhabitants had a reproductivity sufficient to replace their existing populations between the ages of 15 and 49. The average rate of the capital cities and of Newcastle was almost thirty per cent. below replacement level, so that if the 1933 fertility pattern persists these areas will soon have to depend for their growth upon the continued influx of people from outside their boundaries.

There is a close similarity between the urban-rural patterns of fertility in the United States in 1930 and Australia in 1933. In the former the gross reproduction rate of cities 250,000-500,000 was 0.78 compared with rates of 0.89 for cities 25,000-100,000, of 1.00 for towns 2,500-25,000, and 1.47 for rural areas.[9] The gross reproduction rate for cities 100,000-250,000 was only 59 per cent. of that of rural areas (i.e., towns under 2,500 and country districts). In Australia in 1933 the rate for metropolitan areas was 57 per cent. of that for towns under 5,000 and rural areas, and 60 per cent. of that of all extra-metropolitan regions.

American figures suggest that the gap between the reproduction rates of rural and urban areas narrowed immediately after the war of 1914-1918, but widened again after the onset of economic depression after 1927. The net reproduction rate of urban areas was 65 per cent. of that of rural areas in 1920, but only 61 per cent. in 1930.[10] The same trend appears more markedly in figures for metropolitan and non-metropolitan areas of Australia in 1921 and

[9] Lorimer and Osborn, *op. cit.*, p. 28.
[10] A. J. Jaffe, *loc. cit.*

1933, where the rate of metropolitan areas was 81 per cent. of the rate for extra-metropolitan areas in 1921, but only 60 per cent. in 1933. With economic recovery in the late 'thirties the birth rate rose more rapidly in the metropolitan than in extra-metropolitan areas, the rise in the former being 11 per cent. between 1933 and 1940, compared with only 5 per cent. in the latter. But the gap between the two was still sufficiently wide in 1940 to indicate that, with an Australian net reproduction rate of only 1.017, the fertility of Australian cities was by that date still considerably below replacement level.[11] The calculation of reproduction rates for regional groups for years later than 1933 cannot be undertaken with any degree of accuracy, because of the margin of error involved in working with assumed age grouping of the female population. Nor is it likely that such calculations would reveal any marked change in differentials before the outbreak of the war in 1939. We saw in Chapter VI that the fertility structure of Australia as a whole did not change greatly between 1933 and 1939, and the study of metropolitan and extra-metropolitan birth rates during this period indicates that there was no substantial change in either of these divisions. The more rapid rise in metropolitan birth rates after 1939 suggests, however, that the large cities were reaping more of the crop of war-time marriages and first births than the extra-metropolitan areas.

The gross reproduction rate is not an ideal measure of differentials in fertility, but when the trends between 1921 and 1933 are considered alongside the wide differences in the sizes of completed families in 1911 and 1921, the infertility of the Australian capital cities is apparent. The gross reproduction rate, while eliminating the effect of variations in age composition, does not take into account differences in marriage ratios. In the three census years the proportion of women of child-bearing age who were married was lower in the metropolitan than in the extra-metropolitan area. In 1933, for example, only 56 per cent. of the metropolitan women aged 25-29 were married, compared with 67 per cent. in the case of extra-metropolitan women. For age 30-34 the figures were 71 per cent. and 80 per cent. respectively. Nevertheless, when we consider the fertility of married women in 1933 (i.e., female births per 1,000 married women aged 15-49), the metropolitan rate of

[11] Birth rates, 1933-41:

	Metropolitan	Extra-metropolitan
1933	14.0	19.3
1936	14.3	19.6
1939	15.2	19.8
1940	15.6	20.2
1941	17.4	20.1

92.0 is still 34 per cent. lower than the extra-metropolitan rate of 139.1.

It is tempting to conclude that the differentials in the gross reproduction rates of the separate States can be explained by the extent of urbanization. It is true that the two States (South Australia and Victoria) which had the highest concentration of population in their capital cities in 1933, had also the lowest reproduction rates. But other factors must be taken into account. With the exception of Tasmania, the States which had the highest reproduction rates in 1921 and 1933 had also the highest masculinity ratios (males per 100 females) in the age groups important for reproduction, and those with the lowest reproduction rates had the lowest ratios. The significance of the high masculinity of Western Australia and Queensland in 1933 may be seen by comparing the male and female reproduction rates.[12]

TABLE XXX

MALE AND FEMALE GROSS REPRODUCTION RATES AUSTRALIAN STATES, 1933.

	(1) Male G.R.R.	(2) Female G.R.R.	(1)/(2)
New South Wales	1.120	1.060	1.06
Victoria	1.029	0.952	1.08
Queensland	1.106	1.171	0.95
South Australia	1.031	0.936	1.10
Western Australia	1.044	1.164	0.90
Tasmania	1.435	1.273	1.13
Australia	1.072	1.052	1.02

The true value of reproduction will lie between the male and the female rates and will therefore be considerably below the female rate for Western Australia and Queensland. The high male and female rates in Tasmania are of interest. The masculinity ratio of Tasmania for ages 20-50 was comparable with that of New South Wales, and the high male and female rates indicate a high fertility.

This table suggests that the Australian States may, on the basis of 1933 fertility, be classified in three groups: (1) New South Wales, Victoria and South Australia (low); (2) Western Australia and Queensland (medium); and (3) Tasmania (high). When

12 The male rate is calculated by relating male births to males aged 20-50. The method of calculation is the same as for the female reproduction rate. In the following table nuptial births only have been applied. For an analysis of the significance of the male reproduction rate see R. J. Myers, "The Validity and significance of the Male Reproduction Rates," in *Journal of the American Statistical Association*, 36, No. 14 (1941), pp. 275-82.

the birth rate per 1,000 married women of reproductive age is examined the same grouping is apparent, the low group having a rate of approximately 110, the medium group of 130, and Tasmania of 145.

From a study of reproductive patterns in England and Wales between 1911 and 1931, Enid Charles concluded that fertility was relatively well maintained in some rural areas, and conspicuously so in those which were remote from urban centres.[13] The isolation of Tasmania from the direct social and cultural influences of a large metropolis may account for its high reproductivity. Another factor may be the ease with which young men and women of Tasmania may emigrate to the mainland States, thus relieving Tasmanian parents of the necessity of restricting their families to a size commensurate with the economic activities of the island.[14] When the rural areas (including towns with population up to 5,000) of the separate States in 1933 are examined, Tasmania (1.594) has the highest female reproduction rate and also the lowest masculinity of population in each five-year group between the ages of 20 and 50. The rural areas of Queensland (1.536) and Western Australia (1.437) have also high reproduction rates, but their high masculinity is a factor here. It is of interest to note, however, that when the female rates for remote rural areas are considered in 1933, figures comparable to the Australian gross reproduction rate of 1911 (1.705) are found. For example, the North Central Plain and Central Plain of New South Wales had rates in 1933 of 1.785 and 1.660 respectively. In South Australia the remote Western district had a rate of 1.797.

Of greater importance, however, than the differentials in fertility among the separate States are those between the capital cities and the rural areas of Australia and of each State. As we stressed earlier, when allowance is made for variations in sex and marriage ratios, the fertility of the metropolitan areas was still only about three-quarters of that of rural areas in 1933. The differential between the two may have been reduced slightly since then, and will probably be reduced still further in the future. A study of fertility trends in other countries suggests, however, that any reduction of the urban-rural differentials in the future will be the result rather of a decline in rural and provincial-urban fertility

13 Enid Charles, "Differential Fertility in England and Wales, during the past two decades," in *Political Arithmetic, op. cit.*, pp. 106-60.

14 Enid Charles has observed that the high fertility of Prince Edward Island is partly attributable to the wealth of opportunities available outside the island, on the Canadian mainland. (Enid Charles in *The Canadian Journal of Economics and Political Science op. cit.*, pp. 213-46.)

than of a rise in metropolitan fertility. As technical improvements increase the opportunities for leisure in rural areas, and as improvements in transport and radio facilitate the spread of urban ideas, the pattern of rural life will tend more and more to model itself on urban standards. This spread of urban *mores* has been apparent in the past and will be more intense in the future. Interests which have previously been considered the monopoly of the city dweller will be shared increasingly by those in all but the remote country areas, and these areas include only a small section of the Australian population.

If the city is to become the pattern upon which the way of life is to be modelled, the attitude of the city dweller to procreation will be increasingly important. As we pointed out earlier, almost half the Australian population is already living in the capital cities, and it is there that the family is smallest. Enid Charles[15] doubts if it is possible to maintain a stationary population in a community where urban congestion is sufficiently prevalent to dictate the *mores* of family life. This is perhaps too pessimistic. There is no reason why the conception of family life which dominated the industrial metropolis of the nineteen-thirties should remain static. The mechanical and industrial advances which caused the concentration of masses of people in cities have outstripped social organization. The task to be faced now is the re-vitalizing of cities by reversing the process. It is not suggested that any social re-organization of the metropolis, however vigorous, can restore metropolitan fertility to the nineteenth century level. Nor is it desirable that it should do so. Nor, again, is it important that differentials in rural-urban fertility should be eradicated. Indeed, history suggests that this cannot be achieved. Those who come to live in cities are frequently those who desire a more diversified life than the narrow circle of home and rural community. Given equal opportunities to practise birth control, the city dweller will continue to apply family limitation more assiduously than his country cousin. The task is rather to ensure that the reproductivity of towns and cities is sustained at, or near, replacement level in order that the fertility of the whole community is sufficient to prevent ultimate extinction. Moreover, so long as the enjoyment of high material standards of living are demanded by Australians as their natural right, an increasing proportion of the population will live and work in urban areas, and in this situation survival will turn largely upon the level of urban fertility. To suggest, as the New South Wales

[15] In *Political Arithmetic, op. cit.*, p. 159.

Commissioners suggested when they studied the birth rate in 1904, and as numerous individuals and groups have suggested since, that the cure for declining fertility in Australia is a back-to-the-land policy, is to display an ignorance of the fundamentals of modern economic organization. Decentralization of industry and the regional development of cities is quite another matter.

While the differentials between metropolitan and rural areas in Australia indicate that the fertility patterns we have examined are based upon fundamental differences in ways of life, other factors than residence in these two regional divisions must also be considered.

Religion, for example, may be a determinant of family size, but the precise influence of this factor is difficult to assess. Many of those who classify themselves as Anglican or Presbyterian on the census schedule would no doubt deny that the tenets of the faith into which they were baptized influence them in a matter so highly personal as the size of their families. It is of some interest, however, to note that in 1911, those who declared themselves at the census as belonging to faiths where adherence implies the relatively strict observance of certain religious principles, had a comparatively high fertility. Thus wives aged 45-49 who adhered to the Lutheran Church had an average of 6.31 children. Closest to them were adherents of the Salvation Army (5.96), and of Roman Catholicism (5.57). Comparable figures for later census are not available, but in 1933 persons adhering to the Lutheran and Roman Catholic faiths again had a greater number of dependants under the age of 16 years than those of other faiths. Studies of the fertility of religious groups in other countries indicate, however, that the religious factor is not the ultimate determinant of family size.[16] It may act as a brake, but it is insufficient to prevent the decline in fertility when other factors, such as increasing industrialization, combine to foster it. The low fertility of the peasants living in France, a predominantly Catholic country, with the desire to maintain a careful balance between the size of the family and the size of the farm, supports this argument. So does the tendency for the fertility of the French Canadians in Quebec to decline with increasing industrialization and urbanization. Nor are the figures quoted above for the Lutherans and Roman Catholics in Australia sufficiently above the Australian average of dependent children to suggest that family control in some form is not practised among some of the adherents.

[16] See, for example, Enid Charles, in *Canadian Journal of Economics and Political Science, loc. cit.*

Of greater significance than the religious differentials are those connected with occupation. Here, again, the Australian figures for 1933 are unsatisfactory, but they are more adequate for 1911 and 1921.

In the census data of 1911 and 1921 the average number of children per husband is given for each five-year age group and for various occupations. The main weakness of using these figures to estimate differentials in family patterns is that there is nothing to indicate how long the husbands concerned have followed the calling in which they were engaged at the date of the census. Some classes also form rather heterogeneous collections. The "Primary," "Industrial" (manufacturing) and "Commercial" classes are comparatively easy to define. The "Professional" class, on the other hand, includes officers of the Governor-General, racecourse caretakers, and officers of the zoological gardens and menageries, as well as the major part of the group, namely, doctors, lawyers, dentists, teachers and administrators. Nevertheless, a comparison of those classes of occupations which are essentially urban in character with those which are essentially rural again suggests a considerable difference between the size of the urban and rural family. With the exception of the orders classified as "Transport and Communication" and "Industrial," the average size of the family was much lower in the case of husbands who were engaged in predominantly "urban" occupations than of husbands following pursuits which were essentially "rural." (Table XXXI.) Further, the urban drift was affecting all occupations after 1911. Between 1911 and 1921 the proportion of males engaged in each class of industry who were resident in the metropolitan areas increased without exception. By 1921 a majority of males engaged in every industry order other than "Primary" were resident in the capital cities. A further concentration in metropolitan areas was apparent in the 1933 census returns.[17]

From the census data of 1911 and 1921 we may also secure a fairly satisfactory picture of the completed family of husbands engaged in various occupations. In these two years the average

[17] Percentage of males engaged in each industry order who were resident in the metropolitan areas, Australia, 1911, 1921 and 1933:

	1911	1921	1933
Public Administration and Professional	51.9	59.8	62.3
Personal and Domestic Service	47.2	52.1	55.1
Finance and Commerce	58.0	63.3	65.7
Transport and Communication	47.5	51.0	53.6
Industrial	43.5	56.3	58.8
Primary	5.4	7.2	6.1

age of husbands aged 50-54 was approximately three to five years more than the average age of their wives. The average size of the family of husbands aged 50-54 would therefore be representative of those families whose pattern was completed at the census years. Table XXXI gives the average size of family by industry orders of husbands between the ages of 40 and 54.

TABLE XXXI

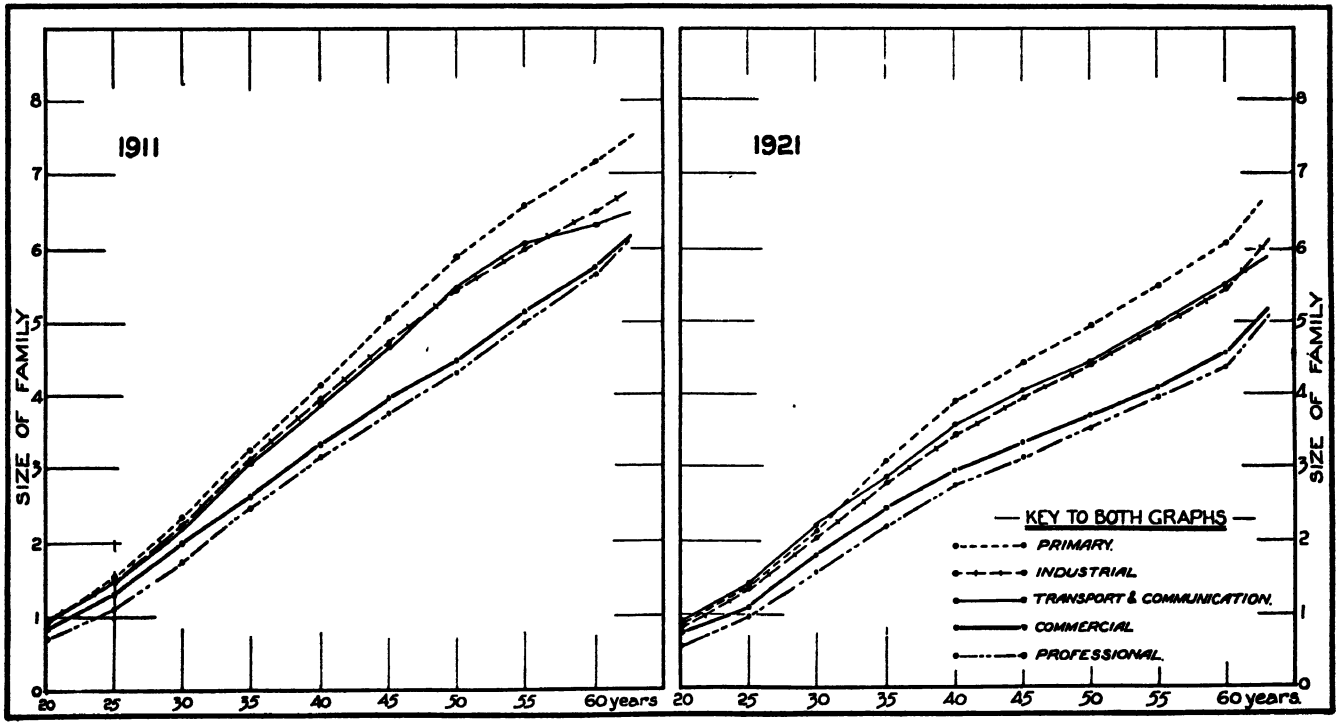
OCCUPATION, AGE AND AVERAGE NUMBER OF CHILDREN OF HUSBANDS. AUSTRALIA, 1911 AND 1921*

	1911				1921			
	40-44	45-49	50-54	All Ages	40-44	45-49	50-54	All Ages
PRIMARY:								
Agricultural	4·10	5·08	5·99	4·57	3·81	4·45	4·98	4·02
Pastoral	4·17	5·08	5·83	4·49	3·72	4·36	4·80	3·94
Mining and Quarrying ..	4·15	4·96	5·66	3·94	4·01	4·50	4·94	3·89
Forestry	4·36	5·57	6·44	3·94	4·25	4·76	5·52	3·75
Fisheries	4·26	5·24	5·58	4·16	4·23	4·60	5·14	3·98
Water Conservation and Supply	3·79	4·59	5·15	3·87	4·10	4·58	4·89	3·38
Total Primary ..	4·13	5·07	5·88	4·37	3·83	4·45	4·95	3·96
Industrial	3·94	4·71	5·40	3·81	3·39	3·90	4·37	3·27
Transport and Communication	3·88	4·67	5·40	3·61	3·55	4·04	4·39	3·19
Commercial	3·33	3·97	4·48	3·39	2·98	3·35	3·67	2·86
Public Administration and Professional	3·13	3·77	4·33	3·37	2·73	3·13	3·54	2·80
Personal and Domestic Service	3·08	3·73	4·18	3·24	2·69	3·21	3·48	2·87

* Census Reports, 1911, pp. 287-8; 1921, pp. 354-5.

The "Primary" class, 72 and 77 per cent. of which was engaged in agricultural and pastoral occupations in 1911 and 1921 respectively, showed the highest average throughout. In the 50-54 age group, the average size of the family of the "Public Administration and Professional" class was only 76 per cent. in 1911 and 72 per cent in 1921 of the primary figures. The average size of the completed family by occupations for these years can be divided into three distinct groups: (1) "Primary" with a relatively high average, (2) an intermediate group made up of "Industrial" and "Transport and Communication"; and (3) a group with a low average represented by the "Public Administration and Professional," "Commercial" and "Domestic" occupations.

Unfortunately the figures given above provide no indication of



GRAPH No. 4. Age, Occupation and Average Size of Family of Husbands (Australia); by Industry Orders, 1911 and 1921.

the duration of marriage, and it is difficult therefore to conclude from a study of uncompleted families (i.e., the average size of family to males in the age groups *under* 50) to what extent the position of each grade is due to variations in the age of marriage. The fact that the husbands of the "Public Administration and Professional" class between the ages of 20 and 30 had a considerably smaller average family than other classes in 1911 and 1921 is probably related to marriage age. On the other hand, the fact that the gap between "Primary" and the low average group (Professional, Commercial, Domestic) begins to widen after the age of 30 suggests a more rigid tendency of the latter to restrict the size of the family.

Again, no direct comparison is possible between 1933 and earlier census years, but a study of male reproduction rates in 1933 supports the conclusion that the commercial and professional classes have low fertility patterns. In that year the rate for the "Agricultural and Pastoral" industry order was 0.97, and for "Transport and Communication" 1.11. The relatively low figure for the former is due to the low proportion of married males in the order (48 per cent.). The converse holds for the latter, in which 66 per cent. of the males were married in 1933. In the case of the "Commercial and Financial" and "Public Administration and Professional" orders the male reproduction rates were only 0.67 and 0.44 respectively. The percentages married in each of these two groups were 61 and 56, so that even when allowance is made for this factor, their effective fertility remains low.

These figures for the three census years 1911, 1921 and 1933 all point to the low fertility of the middle classes of the Australian society, particularly of the commercial and professional groups. To what extent is their low fertility due to the high proportion of their numbers concentrated in metropolitan areas? Census data for 1921 in the States of Victoria and New South Wales for wage and salary earners indicate that although the average issue of those husbands aged 45-49 in the commercial and professional groups who were resident outside the metropolitan areas was higher than the issue of those living in the capital cities, the extra-metropolitan figures for these orders were still substantially lower than the figures for the manufacturing and transport orders. In the case of the last two orders (manufacturing and transport) the issue of husbands living outside the capitals was frequently as high as, and occasionally exceeded, the issue of the important primary groups of agriculture, pasture and mining. Moreover, as these

figures represent issue over a period of approximately twenty years, and are not based on the fertility of a single year, they would not be seriously affected by abnormalities in the immediate post-war years.

TABLE XXXII

AVERAGE NUMBER OF CHILDREN OF HUSBANDS AGED 45-49 WHO WERE WAGE AND SALARY EARNERS

VICTORIA AND NEW SOUTH WALES, 1921*

Occupation	New South Wales		Victoria	
	Metro-politan	Rest of State	Metro-politan	Rest of State
Manufactures:				
Textile, Dress, etc.	3.63	3.65	3.60	—
Food and Drink	3.60	4.49	3.69	4.27
Metal Products	3.68	4.17	3.89	4.17
Transport:				
Railway Transport	3.76	4.45	3.69	4.29
Road Transport	3.89	4.96	3.78	—
Finance and Commerce:				
Banking and Insurance	2.80	3.37	2.70	3.08
Professional and Administration:				
Public Service and Law	2.94	3.79	3.00	3.45
Health, Education and Amusements	2.81	3.65	2.89	3.18
Primary:				
Agriculture	—	4.58	—	4.30
Pasture	—	4.62	—	4.24
Mining	—	4.75	—	4.51

* Figures from an unpublished MS. of E. J. R. Heyward.

Two significant conclusions emerge from this study of differential family patterns by occupations. First, the average size of the completed family is smaller in the white collar and professional classes than in those whose members earn their livelihood essentially by manual work. Second, among salary and wage earners who are engaged in the same industry, those who live in the metropolitan areas have families of smaller average size than those who live outside those areas. This suggests that family size is not determined wholly, or even for the most part, by occupation alone, but rather by residence and the social obligations and opportunities which a particular calling may offer.

Further, while the differential revealed in the above figures between metropolitan and extra-metropolitan areas and occupations

is significant, these figures also imply that there may be a negative correlation between income and size of family. The existence of this negative correlation is further suggested by a study of various metropolitan municipalities. In 1921 and 1933 the wealthier residential areas of Sydney such as Kuring-gai, Mosman, Manly and Vaucluse had a much lower fertility ratio than the poorer and more congested suburbs such as Waterloo, St. Peters, Leichhardt and Balmain. In Melbourne, a comparison between such suburbs as Kew, Hawthorn and Prahran on the one hand, and Port Melbourne, Williamstown and Coburg on the other, reveals the same picture.[18] Few of these city areas, however, had ratios as high as the majority of country towns in each State.

It is widely recognised that the high income groups of industrial communities have smaller families than the poor, and it is commonly assumed that the decline in the birth rate began among the former and gradually spread to the latter. It is true that in most Western countries the fertility of the rich has fallen more rapidly than that of the poor during the last fifty or sixty years; but there is no direct evidence of a period at which the birth rate of all classes was equal[19] The economically ambitious have found that control of fertility has been necessary to enable them to attain their goal. Infertility may be an important cause of wealth, and when the opportunities for social promotion are determined by economic status, wealth may become a cause of infertility.

The desire to acquire sufficient wealth to enjoy what have come to be recognised as legitimate social privileges is undoubtedly a factor which helps to account for the low fertility of the middle classes. But where income is more than sufficient to meet the social demand, the necessity for rigid control of fertility should not be so pressing, and we would thus expect fertility to increase. Unfortunately much more attention has been given to differentials by occupational status than by income, and the high fertility of those in unskilled trades has encouraged the conclusion that fertility decreases as income increases. But there is evidence which suggests that this generalization is unsound, and which supports the hypothesis stated above.

[18] The ratio used for these comparisons was the children aged 0-4 per 1,000 women aged 15-44. The low rates of the wealthier areas do not appear to be accounted for by any advantage in age composition or sex ratio.

[19] For a discussion of this point see R. A. Fisher, *op. cit.*, p. 190 et seq. A useful summary of recent material on income differentials in U.S.A., England and Wales, France, Germany and Sweden is given in W. S. Thompson, *op. cit.*, Ch. XI, pp. 165-87.

A sample study, based on the 1930 census data, of the size of families according to rental and home ownership values in the East, North and Central States of the United States of America indicated that in towns of approximately 5,000 inhabitants the average size of the family decreased from 4.56 to 3.42 as rental values increased from 10-15 dollars to 75-100 dollars; but that in cities of approximately 100,000 inhabitants the negative correlation between the two factors was reversed when rental values over 100 dollars were examined. The same trend was apparent in Chicago, where the size of the family decreased from 3.60 with a rental value of 30-50 dollars, to 3.00 with a value of 75-100 dollars, but then increased to 3.45, and again to 3.74, with rental values of 100-150 dollars and of more than 150 dollars.[20] Further data for Cleveland, Ohio, in 1928 also showed a rise in fertility in the wealthiest classes.[21]

The same positive correlation between family size and economic status in the high income groups has been observed in Sweden.[22] The special census taken in 1935-36 in connection with the population commission enabled a nation-wide study to be made of this question. It was found that the fertility of those with 10,000 kronor[23] and more annually was slightly greater in both rural and urban areas than that of the group with incomes ranging from 5,000 to 9,999 kronor per annum. This positive correlation remained when the groups were corrected for age.[24] The Swedish study of differential family structure according to income reveals a picture similar to that of the sample studies in the United States of America. In both cases, however, the number of children per family in the highest income groups was considerably below that of the lowest groups. Alva Myrdal considers that this failure of family size to increase proportionately with income is due to the fact that differential costs per child have been growing faster than income. "In any occupational and economic class, the level of living of a family is seen in relation to other families in the same group, and equality is lost when children are born. . . . (The)

20 W. F. Ogburn, "The Family and its Functions," in *Recent Social Trends in the United States*, I, 1933, pp. 686-87, quoted in Lorimer and Osborn, *op. cit.*, pp. 59-60.

21 Lorimer and Osborn, *op. cit.*, pp. 60-63.

22 Alva Myrdal, *Nation and Family*, New York, 1941 (London, 1945), pp. 63-66.

23 Approximately £A.625.

24 K. A. Edin and E. P. Hutchinson (*Studies of Differential Fertility in Sweden*, London, 1935, Chs. III and IV), in their examination of marriage groups in Stockholm from 1920 to 1922 also found a positive correlation between income and fertility.

level of living is more dependent on size of family than on income." [25]

In Australia the data for a study of fertility by income is most inadequate. From the census figures for 1933 it can only be concluded that those with declared incomes of £200 and over had a smaller average number of dependent children than those with incomes of £100 and less.[26] Figures from a social survey of Melbourne in 1942, which provide a sample of incomes in that city up to £10 per week, also show that the lower income groups have the largest families. In the case of households in which the age of the wives was 40-44 years, the size of the family decreased up to the income limit of £9, and thereafter showed a slight increase. The same trend was apparent when women aged 20-44 were taken as a group.[27] These figures from the Melbourne sample are too meagre to form the basis of a general conclusion that the fertility of the high income groups in Australia is above that of the middle classes, but they do accord with the experience of other countries concerning the low fertility of the middle income classes and the tendency of fertility to increase slightly in the high income groups.

TABLE XXXIII

AVERAGE NUMBER OF CHILDREN PER MARRIED WOMAN BY INCOME OF HEAD OF FAMILY—MELBOURNE SAMPLE, 1942

	Under 100/-	100—139/-	140—179/-	180/- +
20-29	1.0	1.2	1.1	0.9
30-39	2.1	1.8	1.6	1.6
40-44	3.0	2.3	2.0	2.1
20-44	2.0	1.7	1.6	1.7

The fertility of the middle classes (whether these classes are considered in terms of income or occupation) is important from the point of view of survival for the same reason as the fertility of metropolitan areas. So long as the fertility of the lower income groups remains sufficiently high to provide a reservoir from which the professional and administrative classes can be supplied with new life no real quantitative problem exists. But with higher standards of education, the demand for improved living standards measured

[25] Alva Myrdal, *op. cit.*, p. 66.

[26] In view of the Federal Government's interest in the decline in the birth rate, it seemed probable that the 1947 census would give more adequate attention to the relation between fertility and income, but the emphasis (judged from the census schedule) appears to be still upon occupational differentials.

[27] The author is indebted to Professor W. Prest, of the Faculty of Commerce, University of Melbourne, for permission to use data from the Melbourne Survey to calculate these figures.

in terms of material goods, and the diffusion of birth control knowledge, the factors which have operated to establish a low fertility amongst the middle income groups may spread to the poorer classes. Until the last generation or two lack of knowledge of the techniques of rational control of the size of the family has been an important factor sustaining the fertility of those who have had neither the economic nor educational opportunity of the professional classes. What are bourgeois standards to-day, however, may become proletarian standards to-morrow. Cash benefits designed to increase fertility, such as child endowments, maternity benefits and educational assistance for children to university level may remove some of the barriers that have confronted the middle class parents who appear to be weighing so carefully the economic cost of each child; but unless they are sufficiently generous to hold out prospects of economic gain with the birth of each child, these measures alone may only hasten the creation of a social environment which will encourage further control by the lower income groups, and so close the gap between rich and poor. This does not mean that such measures should not find their place in the social policy of a democracy. They are already part of the comprehensive social policies in operation, or being planned, in most Western countries. But by themselves they will not reverse the trends in fertility that have been apparent for half a century. The study of the differentials in fertility in Australia, as in other Western communities, indicates that a pro-natalist policy designed to maintain reproduction at replacement level, or to ensure population increase, must concern itself with the social reconstruction of urban society, as well as with the removal of the economic barriers inhibiting the reproductivity of particular income groups. In other words, a pro-natalist policy must be part of a social policy at large.

The measures which we have just discussed may also have their effect upon a qualitative aspect of fertility differentials. An aspect which has exercised the minds of psychologists and geneticists has been the negative correlation of fertility and intelligence.[28] It is, of course, wrong to assume that the low fertility of high income groups and professional orders means the breeding out of intelligence, unless we can also assume that there is equality of opportunity in our society, and that there is a positive relation between economic and professional success on the one hand and

[28] For a discussion on this aspect and for a bibliography of the relevant literature, see D. V. Glass, *op. cit.*, pp. 74-5, 432, and G. Thompson, "The Trend of National Intelligence," in *The Eugenics Review*, XXXVIII, No. 1 (1946), pp. 9-18.

intelligence on the other. But although the research that has been undertaken in this field is limited, the available data does suggest that fertility decreases as the I.Q. increases, and if social change provides equality of educational and occupational opportunity without at the same time removing economic and social barriers which make it difficult for those with high educational qualifications and intelligence to have families larger than average size, the long-term effect may be a decline in national intelligence. There is at least a grain of truth in a British geneticist's observation that the educational system as at present organized—and it holds for Australia as well as for Britain—"acts as a sieve to sift out the more intelligent and destroy their posterity."[29] And there is little chance in the modern world that the ravages of famine and disease will, as they probably have done to some extent in the past, remove the danger of those with low intelligence outbreeding those with high intelligence.[30] Intelligence, it is now agreed, is more a matter of inheritance than of nurture,[31] and in communities enjoying low mortality, the maintenance of population quality may necessitate measures to induce a positive correlation between intelligence and fertility. On the other hand, some of the measures which we mentioned in relation to quantitative aspects, such as endowments and the spread of birth control techniques, may themselves reduce the qualitative disadvantages which appear to exist in present fertility and intelligence patterns. It is clear, however, that until much more is known about fertility differentials in relation to intelligence those planning population policies must be concerned mainly with the broader questions we have discussed in this chapter, such as urban, rural and income differentials—and this raises other qualitative aspects which will be discussed in Chapters XII and XIII.

[29] G. Thompson, *op. cit.*, p. 9.

[30] R. A. Fisher, *op. cit.*, suggests that the high mortality suffered by the poorest classes has probably tended to arrest the progress of racial deterioration in some civilizations (e.g., in Asia); but unless such mortality is effective, he considers that an inverted birth rate (i.e., the highest fertility in the "lowest" social orders) will mean that "the type of man selected as the ancestor of future generations is he whose probability is least of winning admiration, or rewards, for useful services to the society to which he belongs." (p. 207.) This does not mean, of course, that this ancestor is necessarily of low intelligence.

[31] Glass, *op. cit.*, p. 74, and G. Thompson, *op. cit.*, p. 15. In the latter Thompson suggests that the general concensus of psychological opinion is that 50-80% of one's intellectual capacity is inherited.

CHAPTER IX

THE FERTILITY OF IMMIGRANTS

It is clear that whatever steps may be taken in the future to raise fertility in Australia, plans to increase population will include measures to attract immigrants. The time has passed when immigration can be the more important factor of growth. Not since 1861 has immigration provided the major portion of population increase in Australia. Over the whole period 1861-1938 the increment to population due to net immigration was 1,332,000, or 23 per cent. of the total increase. Between 1900 and 1938 natural increase supplied 2,598,400 additional people, or 82.1 per cent. of the total increment, and net immigration 566,000, or 17.9 per cent. During peak periods of immigration, the increment due to this latter factor was much higher, but a portion of the gain was lost by the recurring periods of considerable emigration. Between 1911 and 1914, for example, almost 205,000 assisted immigrants arrived in Australia, a number equal to almost half the total increase in population; but over the same period the exodus of 77,000 people brought the net figure down to 128,000.[1]

Official statistics do not give the age composition of the immigrants when they entered Australia, but the majority must have been of an age important to child-bearing. Until immigration virtually ceased after 1930, the bulk of immigrants came from the British Isles, and in 1917 the Dominions' Royal Commission estimated that during the fourteen years preceding World War I, 65 per cent. of all male emigrants over the age of 12 who left the United Kingdom were between 18 and 30 years of age.[2] In 1928 no less than 85 per cent. of the males who emigrated were under the age of 30 years.[3] Now, before 1914 the fertility of both Australia and the United Kingdom was comparatively high, the net reproduction rate being approximately 40 per cent. above replacement level in the former country and 20 per cent. in the latter. Thus the immigrants could be expected to add permanently to the Australian population, whether they adopted the fertility pattern of their country of origin or of their country of adoption.

[1] These figures calculated from the Commonwealth Demography Bulletins.
[2] Br. P.P. 1917-18, X, I., *Cmd. 8462*, p. 87.
[3] R. S. Walshaw, *Migration to and from the British Isles*, London, 1941, p. 62.

By 1932 the net reproduction rates of Australia, the United Kingdom and most Northern European countries had fallen below replacement level, so that there was no longer any assurance that immigrants from the traditional sources would bring with them, or acquire, a fertility sufficient to add permanently to the Australian population. The twenties and thirties witnessed an increase in the proportion of immigrants from Southern Europe, particularly Italy, which still had a net reproduction rate of 1.21 in 1930. Thus if Italians retained their own reproductive patterns they would have a fertility considerably above replacement level. But Australian and British-born comprised 97 per cent. of the population in 1933, so that the effect of all the non-British elements upon the total rate of growth would be negligible. Nevertheless, even if the fertility of all immigrants to Australia was no higher than the Australian average, they should have given a fillip to the crude birth rate in Australia, because of the age composition of the majority at the time of entry.

The effect of the falling fertility in the countries of origin is seen in the decrease in the number of children immigrants were bringing with them. In 1924-25, each thousand female immigrants aged 15-44 brought with them an average of 102 female children under the age of five years, compared with only 47 in 1937-38.[4] But more important than the fertility of immigrants before entry to Australia is their reproductive pattern after entry. An analysis of the fertility of the foreign-born population published in 1936[5] concluded that while immigrants entering Australia before the first World War had a high reproductivity, this did not appear to hold for the post-war period. There were 104,936 nuptial births in Australia in 1933. In 82,842 cases both parents were Australian-born; in 6,154 neither parent, and in the remaining 15,940 cases one parent, was Australian-born. Sharing equally the 15,940 half-and-half cases, it follows that Australian-born parents were responsible for 86.5 per cent. of nuptial births, and parents born elsewhere for 13.5 per cent., i.e., less than one-seventh of the total. Further, surviving immigrants of reproductive age (20-45) in 1933 numbered 350,000, or almost one-seventh of the total number in Australia within those age groups. These calculations suggest that the average fertility of all foreign-born elements in Australia in 1933 was slightly below that of the Australian-born, although the disparity was comparatively slight.

These figures are unsatisfactory for an estimate of the extent to

[4] W. D. Forsyth, *The Myth of Open Spaces*, Melbourne, 1942, p. 188.
[5] Bank of New South Wales, *Circular*, Feb., 1936, pp. 7-9.

which immigrants are assimilated to the Australian demographic patterns, for they take no account of age distributions, duration of residence in Australia, or the country of origin of the various ethnic groups. Immigrants from countries of low reproductivity, like Britain, are included with those from countries of high reproductivity, such as Italy. An examination of the census data for 1933 concerning the average number of dependent children under 16 years of age[6] suggests the existence of considerable variations in the fertility patterns of foreign-born groups in Australia (Table XXXIV). Those born in New Zealand who were resident in Australia in 1933 had the lowest average number of dependent children (1.99). Above this group were those born in England, Wales and Scotland with an average of approximately 2.03, while those born in Ireland (2.23) and Italy (2.26) had the highest average. But these figures do not allow for age distribution, which is particularly important in the case of the Irish- and Italian-born. In 1933 70 per cent. of the Irish-born had been resident in Australia for more than twenty years, and over 37 per cent. were over 50 years of age and had thus completed their family. The older age composition of the Irish-born, compared with other groups, accounts for their high average issue, and when corrected for age they show a lower fertility than immigrants from England and Wales. The reverse applies in the case of the Italian-born, only 16 per cent. of whom had been resident in Australia for more than 20 years, and a large proportion of whom were in the fertile age groups (20-50). A correction for age here to allow comparison with British-born groups increases the lead of the Italian-born.

TABLE XXXIV

AVERAGE NUMBER OF DEPENDENT CHILDREN OF FOREIGN-BORN PARENTS, AUSTRALIA, 1933

Birth-place of Parent	1 Males	2 Females	3 Persons	4 Estimated Average per Person corrected for age
New Zealand -	2.03	1.55	1.99	1.89
All Europe - -	2.09	1.68	2.06	2.10
England - -	2.05	1.67	2.034	2.11
Wales - -	2.07	1.61	2.04	2.12
Scotland - -	2.05	1.68	2.03	2.15
Ireland - -	2.28	1.63	2.23	1.76
Italy - -	2.26	1.96	2.26	2.58
All Australia -	2.29	1.79	2.25	2.25

[6] 1933 *Census*, Vol. I, p. 832.

Table XXXIV is not an exact estimate of the fertility patterns of immigrants after entry into Australia, because some of the children would have been born before their parents settled here; but the gross reproduction rate, which may be calculated by the substitute method already referred to, provides an estimate of the fertility patterns adopted after entry, and by comparing these rates with those for Australia and for the countries of origin, we may determine the extent to which immigrants have tended to conform to the habits of their country of adoption (Table XXXV).

TABLE XXXV

FEMALE GROSS REPRODUCTION RATES OF FOREIGN-BORN WOMEN, AUSTRALIA, 1933*

Country of Origin	Gross Reproduction Rate	G.R.R. of Country of Origin
New Zealand	0.796	1.053 (1933)
All Europe	1.079	
England and Wales	1.027	0.845 (1933)
Scotland	1.016	1.098 (1934)
Ireland	0.915	1.080 (1930)
Italy	1.891	1.585 (1930-32)
Rest of Europe	1.449	
All Australia	1.052	

* These rates may be subject to a small margin of error on account of migratory movements during the last six months of 1933, but the error from this source would be negligible, because the total (male and female) net migration for all Europeans for 1933 was only 485. The largest net movement was in the case of Italians (454), but less than one-third of these were females, so that the effect on the female G.R.R. for Italian-born would be very slight.

It is of interest to compare these figures with similar results for the United States of America in 1930.[7] In that year the female gross reproduction rate for the white population was 1.08. The rate for British-born was 0.938, for Irish-born 1.086, and for Italian-born 1.864. The most striking features in both Australia and the United States of America are the very high fertility of the Italian women, and the fact that none of the Northern European migrants had a reproduction ratio above replacement level.[8] Another feature of the Australian figures is the low fertility of the New Zealand-born, which was almost 25 per cent. below the rate for the country of origin.

What are the factors governing these differentials? They may be due to differences in sex ratios of the non-assimilable immi-

[7] Enid Charles, in *The Sociological Review*, *op. cit.*, p. 243.

[8] A gross reproduction rate of at least 1.1 would be needed to give a net reproduction rate of unity, i.e., replacement.

grants, in the types of occupation of the husbands, in places of residence, or in marriage ratios.

An analysis of the American scene again provides useful evidence on some of these points. American experience suggests that to some extent first generation immigrants tend to follow the reproductive habits of the country of origin, and that those of the second generation tend to follow the habits of the social, occupational or cultural group in which they settle. But the "melting pot" tendency (i.e., intermarriage and cultural assimilation) quickly dissipates the original reproductive habits of most immigrant groups. "Apparently racial differences among the various immigration groups in this country," two observers of the American scene write, "tend to persist only in so far as they become translated into persistent regional, cultural, economic or cultural-economic differences. The problem of differential fertility among racial groups then becomes merged in the larger problem of differential fertility among regional or social groups."[9]

Reproduction rates in Australia suggest that experience here has been similar to that in the United States. No figures exist for a study of the second generation immigrants, but this is not as important in Australia as in the United States, for the majority of immigrants in the past have been of British origin and have married freely with the Australian-born population. We would thus expect the reproductive habits of British-born women in Australia to conform to the Australian average, even in the first generation, assuming, of course, that the husband is a factor in determining the size of the family.

Of the other foreign-born elements, the Northern European women have intermarried more freely than those from Southern Europe. In 1933, for example, 85 of the 95 Italian brides married grooms born in Italy, and 32 of the 39 Greek brides married Greek-born grooms; but only 15 of the 43 brides born in Germany married their own kind. The reproductive habits of the country of origin would thus probably be retained longest by the Southern Europeans. But while this tendency for Italian brides to marry their own kind may account in part for the high fertility of Italian-born women in Australia, more important probably is the fact that 55.5 per cent. of the Italian women in 1933 lived in rural areas, 9.3 per cent. in urban provincial areas, and only 34.9 per cent. in the capital cities. The distribution of other foreign-born females probably also influenced their fertility. Of the women born in the United Kingdom 62.3 per cent. were living in the

[9] Lorimer and Osborn, *op. cit.*, pp. 40-54.

capital cities in 1933, and only 23.7 per cent. in rural areas. The proportions for the Irish-born females was not dissimilar. The New Zealand-born female population was even more highly urbanised, 71.5 per cent. living in the metropolitan areas. Thus of the foreign-born under consideration, only the Italians had an urban distribution below the Australian average.[10]

It will be noticed (Table XXXV) that the gross reproduction rate of Italian-born women in 1933 was much higher than that of Italy, but it may not have been higher than that of *rural* Italy, for which figures are unfortunately not available. The rate of Italian-born women was, however, considerably above the 1933 rate for "rural" Australia (i.e., towns under 5,000 and country areas), which was 1.376, and was also higher than the rate for the "rural" areas of Queensland (1.536), in which State resided slightly more than one-third of the 6,700 Italian women living in Australia in 1933.

The gross reproduction rate of the New Zealand-born is of particular interest. Their rate of 0.796 resembles very closely the rate for the metropolitan areas (i.e., the six capital cities) of Australia in 1933, which was 0.792. We have already seen that 71.5 per cent. of the New Zealand-born women were living in these areas in 1933. Many New Zealanders come to Australia to engage in commerce and the teaching profession. If New Zealand-born women married New Zealand- or Australian-born males in these occupational classes this would also help to keep their fertility at a low level, because, as we saw in Chapter VIII, both these classes in Australia have a very low fertility.

Variations in the proportion of women who were married[11] would also be a factor accounting for differences in the fertility of foreign-born groups, but the importance of this factor is difficult to assess. Only 45.8 per cent. of the Irish-born women aged 15 and over were married in 1933, compared with 53.5 per cent. of the Australian-born. The low Irish figure is partly explained by the large number of Irish-born in the over 50 age group, which increased the proportion of widowed classified as unmarried, but the high ratio of "never married" to married women also suggests

[10] Percentage of foreign-born females in urban and rural divisions, 1933:

Place of Birth	Metropolitan	Provincial Urban	Rural
United Kingdom	62.3	13.8	23.7
Ireland	61.8	15.8	22.2
Italy	34.9	9.4	55.6
All Europe	61.5	13.8	24.6
New Zealand	71.5	10.6	17.8

[11] *Married* excludes "widowed" and divorced," as well as "never married."

that a relatively high proportion of Irish of reproductive age were spinsters. It appears, then, that the marriage habits of the Irish-born women were not as favourable to fertility (as measured by the gross reproduction rate) as those of the Australian-born. This was not so with the other foreign-born groups where the high percentage of women aged 15 and over who were married was due rather to the small proportion of "never married" women than to variations in age composition. Particularly was this the case with the Italian-born women, the majority of whom, it appears, migrated to Australia as brides or fiancées. Those who remained unattached on reaching Australia must have been subjects of keen competition. The majority of Italians, as we have seen, married their own kind, and there were only 6,692 women compared with 20,064 men in 1933. The result was that 91 per cent. of Italian-born women in Australia aged 15 and over were either married at that date, or were widowed or divorced.[12]

Marriage ratios were therefore unfavourable to a high reproduction rate among Irish-born, and definitely favourable to Italian-born. Other foreign-born groups probably held a slight advantage over the Australian-born when differences in age composition are taken into account, because of the tendency of women between the ages of 20 and 30 to emigrate as brides or fiancées.

Thus it appears from a study of the fertility patterns at the time of the last census that, despite certain advantages in regard to marriage ratios, the majority of immigrants had a reproductivity below the Australian average. The Italians alone had a fertility in 1933 sufficient to add permanently to Australia's population. Furthermore, immigrants here, as in the United States of America, showed a tendency in 1933 to follow the reproductive habits of the cultural or economic groups among which they settled. This was notably so in the cases of the Italian- and New Zealand-born groups.

If we assume that the fertility of the foreign-born will follow Australian trends, to what extent will immigrants add to the future population? The answer is best given by reference to S. H. Wolstenholme's estimates.[13] Assuming that the quinquennial decreases in reproduction rates between 1938 and 1963 would be one-half of those experienced 1925-30, Wolstenholme calculated a

[12] Percentage of foreign-born women aged 15 and over who were married, 1933. (Widowed and divorced classified as never-married.)

Place of Birth	Per Cent.	Place of Birth	Per Cent.
England and Wales	65	Italy	82
Scotland	62	New Zealand	59
Ireland	46	Australia	53

[13] In *The Economic Record, loc. cit.*

maximum population without immigration of 7,420,000 in 1957. If immigration continued annually at the rate of 40,000 per year, i.e., at a rate equal to the peak period after the first World War, a maximum of 8,940,000 would be reached in 1981. By the first estimate population at the end of the century would be declining at the rate of 1.1% per annum, and by the second, at 0.36% per annum. Immigration at this level would thus delay the attainment of a maximum population, and increase it by approximately one and a half millions. We have already seen, however, that immigrants, with the exception of the Italians, have a reproductivity below the Australian average, so that Wolstenholme's assumption here errs on the optimistic side, even if 40,000 European immigrants a year can be secured.

The pattern of reproduction rates of the foreign-born elements in Australia suggests strongly that immigrants from Northern Europe will do little to raise Australian reproduction, particularly if a high proportion of them continue to settle in the large metropolitan areas. Some definite demographic advantage may be gained by introducing migrants from countries of high fertility, the more so if they are settled in remote rural areas and if miscegenation is discouraged. But such a policy would cut at the root of a successful immigration scheme, for it would both limit the numbers that could be absorbed and encourage an attitude which would be as anti-social as it would be politically dangerous. Assimilation must be the corner-stone of any immigration policy, and as assimilation hastens the tendency for the fertility of immigrants to conform to the patterns of their country of adoption, the solution to a decline in population must ultimately be found internally through an increased reproduction.

Nevertheless, a steady flow of young immigrants in the future would be to Australia's advantage, for it would help to augment the low rate of increase among those attaining marriageable age as a result of the falling fertility of Australian women after 1922.[14] For this reason, it is important that immigrants should be young married couples, or young single people of marriageable age, not older than thirty years. Juvenile immigration would also be to Australia's advantage. On economic grounds, too, young settlers, carefully chosen and trained to meet the shortages of industrial skill that are likely to result from past trends, would facilitate the maintenance of a high level of economic activity, which will be necessary if the Australian community is to bear the burden of

[14] See Chapter VI.

a successful pro-natalist policy. But this brings us to the paradox of the whole situation, for what is Australia's need is also Europe's need, and Australia cannot embark upon a population policy, either in regard to fertility or immigration, which is contrary to the needs of other countries. Despite the obvious signs, amounting almost to panic, of the desire among people of Western European countries to quit the Old World, it is unlikely that this will be, or should be, of long duration. At present it is the product of economic and social disorder, and it will last so long as these conditions prevail. But few European nations are unaware of the magnitude of the modern demographic revolution, and they will attempt to hold the people they have. In the long term a conflict of interests in the demographic sphere must arise between countries of immigration and the traditional sources of emigration, and this conflict will probably prove a stronger barrier to movement between them in the future than did the pre-war economic and social barriers. This raises a further issue: Australia's population policy must not only be related to social problems at large; it must also be related to security; and Australia's security may depend in the long term upon the solution of population problems internally, and not upon the large-scale movement of people, the more so as this Dominion is geographically in the Asiatic zone and has to find a solution to the "White Australia" problem.

A study of the fertility patterns of immigrants supports the view that the chief "problem" of population with which Australia is faced is the internal one of a level of reproduction which is insufficient to prevent population decline. A policy designed to solve that problem must be based upon demographic realities. In the demographic sphere it is very true that the sins of the fathers are visited upon the sons. What Australia or any other Western country may achieve in the future in the way of population increase will be largely determined by what has already happened. Rapid population growth by natural increase alone is no longer a realistic possibility. No useful purpose is served by performing a mathematical calculation to show how many children must be born per family to provide Australia with a given population by 2000 A.D., and then designing a policy to achieve this goal, if demographic facts show that this figure is unattainable. But if Australia, while formulating a pro-natalist policy that will ensure a replacement-level rate of reproduction, can find and absorb immigrants without complicating the population problems of the countries from which those migrants come, so much the better.

PART III

THE CAUSES AND CONSEQUENCES

CHAPTER X

THE CAUSES OF THE DECLINE IN FERTILITY

In the preceding chapters we have analysed the nature of the changes in fertility and the structure of the family in Australia, and we have shown that these changes have not been of recent origin, but that they have accompanied the reduction in mortality rates over the past half-century. As the expectation of life has increased, primarily as the result of the decrease in infant and juvenile mortality, any increase in the average size of the family has been checked by the spread of voluntary birth control methods. This historical approach enables us to study the question in its proper perspective. Contemporary explanations by those who are mainly concerned with the "degeneracy" of modern parents or the "selfishness" of the middle classes ignore the important fact that fundamentally the decline in the birth rate is not due to the unwillingness of the modern generation to marry and to undertake the responsibilities of at least a small family, and that an average family of three living children has been the rule rather than the exception.

Thus before we proceed to our analysis of causes, it is advisable to emphasize again a few points already dealt with in earlier chapters. First, the decline in fertility in Australia and other Western countries has not been the result of any apparent tendency of young people to refrain from marriage. William Godwin, writing more than one hundred and fifty years ago, suggested that when the world was fully populated, control of numbers might be achieved by the extinguishing of the passion between the sexes, but it is quite clear that there is no indication that this is occurring. It is true that the recurring booms and depressions of the last century have had their temporary effect upon the frequency of marriage and upon the average age at which marriage is contracted. But as prosperity has returned the marriages have been contracted, and in the majority of the white countries we have discussed in this book there has been no significant long-term change in either the frequency or average age of marriage. The one clear exception is Ireland, where comparative illiteracy, the strength of religious factors and economic poverty have all com-

pelled its people to seek control by the Malthusian principle of moral restraint.[1]

In Australia, as in most other countries enjoying high standards of living and almost total literacy, population control has not necessitated any obvious change in marriage habits, and it is likely that in the future economic difficulties will be met rather by the spacing of children than by the postponement of marriage. We have already noted that in Australia the economic depression of the nineteen-thirties was accompanied by the increase in the interval between marriage and the birth of the first child, and that this factor was as important in the decline in the total number of births as the increasing age of marriage. It should also be noticed that in the years of recovery after approximately 1935 a significant factor in the increase in the birth rate in Australia was the number of first births occurring to older women, and that the interval between marriage and first births continued to increase. During the war years also many of the first births have been to women married before the war. These trends probably foreshadow the shape of things to come. As the habit of rational birth control becomes more widespread, the marriage rate will probably become less satisfactory as an indicator of economic fluctuations than the interval between marriage and the birth of the first child.

The explanation of the decline in fertility must be sought in terms of the changes in the attitudes of people after marriage rather than in changes in the age of marriage or of the proportion of the population marrying. Can the decline then be attributed to increasing sterility? The statistical evidence which we have presented does indicate that there has been some increase in the sterility of marriage in Australia and in the United States of America. But the increase can only account for a fraction of the total decline in the birth rate. It is difficult to determine the exact extent to which any increase in childless marriages is the result of voluntary control on the one hand, and physiological factors on the other, but it is probable that the former has been of greater significance than the latter. Kuczynski concluded in 1938, from his study of data in a number of countries, including England and Wales, Scotland, the Union of South Africa and Norway, that involuntary sterility is much rarer than is generally believed. He found that

[1] Since 1870 the proportion of women aged 15 and over who have been married has been appreciably lower in Ireland than in any other country for which reliable figures are available—e.g., the proportion per cent. for Ireland in 1930 was only 40, compared with 53 for England, 55 for Australia and 57 for France. (See A. Landry, *Traité de Demographie*, Paris, 1945, p. 136.)

in the case of wives married before the age of 25 years the proportion who had not borne a live child after ten years varied from 3.3 per cent. to 5.2 per cent. The proportions were even lower in the case of wives married before the age of 21 years.[2] Gunnar Myrdal also concluded that there was no increase in involuntary sterility in Sweden in the two generations before 1940.[3] In France also, the lack of any increase since 1891 in the proportion of married women without issue[4] suggests that there has been no increase in involuntary sterility.

In the absence of any clear evidence that the fecundity of women (i.e., capacity to produce children) has decreased in recent decades, it may be concluded that the tendency towards increased childlessness, which has been observed in Australia and the United States of America, is primarily the result of the voluntary restriction of conception. That tendency, however, has not been of sufficient extent to suggest that the further spread of birth control knowledge will cause a rapid increase in childless marriages, even although it may increase still further the interval between marriage and the birth of the first child. It is not the first child which married couples are, and have been, avoiding, but the third. Nevertheless, any tendency for the marriage age to rise as a result of economic depression, as was the case in the 'thirties, would increase temporarily the proportion of sterile marriages, for there is a steady decline in the fecundity of women after the age of approximately 25 years.[5] But an increase in childless marriages as a result of these factors would not necessarily imply a decrease in the capacity of women to bear children. Similarly the higher average marriage age of the professional classes and a probable tendency towards less frequent coitus,[6] compared with lower income and educational groups, is probably a factor which helps to explain the low fertility of the former, but again this evidence does not justify the conclusion that their fecundity is lower than that of the latter.

Numerous writers have put forward arguments in support of the theory that fecundity is decreasing. They point to the disturbances of female biological functions as a result of modern life, venereal disease, the low intake of Vitamin E (derived from the wheat germ

[2] See Ch. VII, p. 90, n. (8).

[3] Gunnar Myrdal, *Population, a Problem for Democracy*, Harvard U.P., 1940, p. 49. Myrdal estimated (p. 176) that approximately 10 per cent. of all marriages in Sweden are sterile.

[4] J. J. Spengler, *op. cit.*, p. 61.

[5] R. Pearl, *op. cit.*, pp. 42-43. Pearl estimates that the decline in pregnancy rates in the period from 20-24 to 30-34 is 11.4 per cent.

[6] *Ibid.*, p. 68.

and green vegetables), nervous strain and neurasthenia.[7] The precise influence of these factors has yet to be determined by medical science, but none of them can explain the tremendous change in the structure of the modern family.[8] The real cause of that change must be sought in the voluntary control of the size of the family, and not in involuntary sterility.

When we speak here of voluntary birth control we mean any measure which may be taken to prevent either conception, or a live birth. We have shown from our statistical evidence in earlier chapters that this control has been widely applied in the Western world. It is not merely an Australian phenomenon. The extent to which control is exercised by the prevention of conception on the one hand and induced abortion on the other is again difficult to determine, for the abortionists do not give details of their profession in the censuses. In France abortion appears to have been a major factor limiting the size of the family. Towards the end of the nineteenth century abortion was notoriously common in France, and was estimated to be as high as 35 to 40 per cent. of all conceptions. These estimates cannot be regarded as more than informed guesses, but Glass concludes that the total evidence is sufficient to suggest that at the end of the century abortion was very widely practised in France. Nor do changes in the French laws appear to have reduced the frequency of abortions. It was estimated in 1937 that in large French towns there were more abortions than live births, and that the practice was spreading in rural areas.[9] In Germany also, the annual number of abortions in the post-war (1914-18) years has been placed at between 800,000 and one million, which provides a ratio of abortions to births comparable to that of France. After 1933 the Nazis enforced anti-abortionist laws, and there was a marked increase in the prosecutions for abortion in 1937 and 1938, but it is not clear to what

[7] See Alva Myrdal, *op. cit.*, pp. 48-50, and K. and R. Titmuss, *Parents Revolt*, London, 1942, pp. 88-92. The authors of the latter work point out that the change-over to the machine grinding of flour, which has practically eliminated stone-ground flour from the English diet since about 1880, seriously reduced the Vitamin E content of bread, but that there is no evidence that the Vitamin E deficiency has been increasingly prevalent during the last sixty years.

[8] There is a tendency to accept too readily the verbal evidence of medical practitioners to the effect that they are "sure" or "convinced" as a result of "long experience" that sterility is on the increase. It should be remembered that it is only recently that married couples have been encouraged to seek medical assistance in the matter of sterility. The increasing awareness of sterility is no ground for concluding that its prevalence has increased.

[9] D. V. Glass, *op. cit.*, p. 163. See also p. 443 et seq. for critical discussion of literature on abortion in France.

extent the prevalence of the practice was reduced.[10] Material collected in England and Wales suggests that the practice has been less prevalent there than in either Germany or France. After examining the available literature on the subject Glass considers that "it seems not at all improbable that there are each year about 100,000 illegal abortions in England and Wales."[11] If we assume this to be an approximate estimate, the ratio of induced abortions to births would be in the region of 1:7. In New Zealand a Committee on Abortion estimated in 1936 that over 6,000 abortions were procured each year, and that of these more than 4,000 were criminally induced. More recent investigations have suggested that these figures probably underestimate the prevalence of the practice and that the total number of abortions may be as high as 15 to 20 thousand a year.[12] Assuming that two out of every three are induced abortions, this implies that there may be approximately one induced abortion to every 2.5 births in New Zealand. In the State of Victoria a ratio of one abortion for every three births has been estimated, which would provide a ratio of induced abortions to births similar to New Zealand. In New South Wales the upper limit of abortion has been placed as high as 40 to 50 thousand, or almost one abortion for every birth, which would provide a higher rate of induced abortions than that of either Victoria or New Zealand.[13]

Even if these estimates can be accepted as approximations of the true position, they reveal nothing of trends in abortion. The evidence before the Royal Commission in New South Wales in 1904 indicated that the practice was widespread then, but the evidence offers no basis for comparison with the situation to-day. Nevertheless, unsatisfactory as the statistics for abortion are—and, for obvious reasons, as they must remain—it is clear that the practice has been an important factor in family limitation in modern times. But it should not be concluded that abortion is a fundamental cause of the decline in fertility, or that its suppression will increase the size of the family. Indeed it is reasonable to

[10] *Ibid.*, pp. 278-85. Burgdorfer estimated that the ratio of abortions to live births in Berlin in 1929 was as high as 103:100 (see A. M. Carr Saunders, *op. cit.*, p. 98).

[11] *Ibid.*, pp. 51-54, and pp. 427-29.

[12] H. I. Sinclair, *Population, New Zealand's Problem*, Dunedin, 1944, p. 60; also The Dominion Population Committee, *Reports*, Wellington, 1946, pp. 120-3.

[13] The Australian figures are taken from C. Mayne, *Exit Australia*, Melbourne, 1944, p. 13, and a Report on Abortion prepared by the Working Committee for the Enquiry on the Birth Rate by the National Health and Medical Research Council, 1944.

assume that abortion will decrease without further legal action being taken if the facilities for other birth control methods become more readily available. Induced abortion can only be considered as the least pleasant aspect of the whole birth control movement, and as a symptom of an underlying cause.

The same may be said of other birth control measures. The decline in the birth rate in Britain and Australia during the last quarter of the nineteenth century was probably accentuated by the activities of the Neo-Malthusian League, by the publicity which its aims received in legal proceedings, and by the improvement in the efficiency of contraceptive appliances. But many who were practising family limitation at that time were probably using other methods than contraception or abortion. The Commission of Enquiry in New South Wales in 1904 implied that the change in family habits which it observed was the direct result of the increased importation and manufacture of contraceptive appliances. Had this been so, a continuous fall in the birth rate would have been expected, but as we have seen this did not occur. The Commission paid too little attention to environmental causes, and too much to the techniques of control. An analysis in Sweden of the techniques by which intensified birth control has been brought about, has led to the conclusion that even in recent years technical contraceptives have played only a minor role in birth control, and that the technique most generally used, even in the urban and middle classes, and still more among the broad classes of farmers and workers, is coitus interruptus.[14] If this is true of a country in which there has for some time been no strong moral objection to contraception, or any powerful religious opinion against its practice, it is probably equally true for countries like Australia and Britain. An investigation concerning the new patients who attended the Sheffield voluntary birth control clinic in 1937-38 indicated that of the 396 women concerned 293 stated that coitus interruptus was the method of birth control used. In a further investigation of women who attended voluntary birth control clinics in the United Kingdom, Glass found that 44.1 per cent. of 2,824 cases studied in 1937 used coitus interruptus, either as the sole method of control, or in conjunction with some other method. In 1938 the corresponding figure for 3,583 cases was 41.7 per cent. In the cases of women who used only one form of control, coitus interruptus was practised by 57.2 per cent. in 1937 and 50 per cent. in 1938.[15] These samples

[14] Alva Myrdal, *op. cit.*, p. 51.
[15] D. V. Glass, *op. cit.*, pp. 47-48.

cannot be taken as a true cross-section of contraceptive practices among British women, because the women who were attending the clinics might have done so because they were more fecund than the average, or because they were relatively ignorant of the methods of contraception. Moreover, they would tend to be representative of the women who had no strong moral objection to birth control. Nevertheless, the percentages are high enough to suggest that coitus interruptus was still an important form of birth control in Britain in these years.

Even although material for the study of birth control methods is very limited, it does appear safe to conclude that the use of birth control appliances is becoming increasingly widespread. A walk along Charing Cross Road in pre-war London must have astonished the most hardened sceptic. It has also been estimated that the sale of contraceptives increased by 100 per cent. in Australia during the war years, 1939-45[16]—which probably helps to explain the lack of any substantial increase in the illegitimate birth rate over this period. It has also been calculated that in the United States of America in 1937 the expenditure on contraceptives was as great as that on jewellery.[17] The easy availability of contraceptives in recent years in Britain, Australia, New Zealand and the United States of America, and the widening knowledge of their correct use which must have followed the growing circulation of the many books and pamphlets on the subject, has probably been one important factor accounting for the comparatively low abortion rates in these, compared with some European countries.[18]

But while we may anticipate a rapid spread in the use of contraceptive appliances, the available evidence indicates that the revolutionary change in family structure, which we have observed in Australia and other Western countries over the past two generations, cannot be attributed to changes in the technical feasibility of birth control. Despite the impetus which has undoubtedly been given to family limitation by the application of scientific and technical knowledge to this field, the extensive decline in the birth rate must be explained in terms of some deeper change in the motive for limiting the number of children. The key to the real explana-

[16] Quoted by Professor A. P. Elkin at the Summer School of the Australian Institute of Political Science, January, 1946.

[17] P. K. Whelpton and C. V. Kiser, "Trends, Determinants and Control in Human Fertility, in *Annals, op. cit.*, p. 120.

[18] An interesting but difficult study would be the extent to which knowledge on the subject of birth control has been disseminated by the advice given to couples about to be or recently married by ministers of religion. Their influence may have been considerable, for not all sects are now opposed to the practice.

tion is to be found in the pattern of differentials in family structure which has evolved during the past fifty or sixty years. As we have observed, there have been variations in the extent of these differentials in different Western communities, but the general nature of their evolution has been similar. The habit of rational birth control has been spreading downward, from the relatively prosperous to the less prosperous groups of society, and outward from the large city to the small town and rural areas. This movement could also be explained in terms of educational status, or perhaps of social ambition, without invalidating the general conclusion that the modern small family habit is the result of the material and psychological changes that have accompanied the scientific and technical developments of the past century.

This statement presupposes the view that ecological factors are the main determinants of family size. There is no originality in this view. In the eighteenth and nineteenth centuries many theories were postulated to explain population change in relation to the material environment. Thomas Malthus's general thesis, as stated in the first edition of his essay in 1798, that population change tended to be determined by the available food supply, was true of pre-industrial Europe, as it is of many Asiatic countries to-day, but obviously it is inadequate as an explanation of the demographic changes which occurred in the Western world in the nineteenth century. Writers after Malthus, who had fuller knowledge of the technical revolution which was occurring, sought to show that increasing affluence tended to limit reproduction. Michael Sadler postulated in 1829 that there was a negative correlation between fecundity and density. Eighteen years later Francis Doubleday put forward a similar theory, with emphasis upon material living standards rather than upon density, to show that in a "highly and generally affluent and luxurious" community population would decrease and decay. Herbert Spencer carried this search for a "natural" law of population further in 1867, when he foresaw the disappearance of population pressure and its accompanying evils as the result of the decrease in the capacity for reproduction which would occur as a greater proportion of the individual's energy was used in personal development.[19]

Important as these studies were as attempts to examine the ecological factors conditioning population change, they were neces-

[19] For a summary of population theories of the nineteenth century, see W. S. Thompson, *op. cit.*, p. 34 et seq., and E. Whittaker, *A History of Economic Ideas*, London, 1940, Ch. VII.

sarily limited in their value by the lack of material upon which their authors could draw. A major weakness was the implication in some of them that improved material standards of living tended to decrease the capacity to reproduce. Moreover, too great stress was placed upon material factors. It was not until the end of the nineteenth century, when improvements in the collection of vital statistics made more detailed studies of differentials in fertility available, that attention was focused upon social and ethical factors of the environment, as opposed to the purely material. In this regard French populationists did important work.[20] Arsène Dumont's theory of social capillarity is perhaps the best known of the French attempts to explain reproductive changes in relation to social changes. Dumont held that in a society in which social mobility was easily accomplished, the birth rate would tend to fall, for the people would be continually striving to press upwards for their own individual advancement. Further, large cities, he considered, exert a powerful attraction upon those living near them, and thus increase the capilliary movement of the people, and as city dwellers have a low fertility this tends to increase the speed of the decline of the birth rate. On the other hand, in countries like India, where social mobility or capillarity is greatly restricted, there is, he claimed, no tendency for the birth rate to decline and for the population to die out.[21] There were serious weaknesses in Dumont's generalizations. For example, his theory of capillarity cannot be applied to Ireland, where the absence of opportunity for social mobility has not been accompanied by a high fertility. But the theory has the merit of attempting to relate fertility to social conditions. Another French theorist, Leroy-Beaulieu, carried the idea further when he stated that the development of cities, the quasi-universal propagation of comfort, the soaring of individual and family ambition, and the prospect open to all of elevating themselves in the social scale, with the fear of a decline in status which accompanied this, all encouraged the decline in fertility.[22]

The explanation of the decline in fertility has been sought in recent times by further developments of this social approach, not only from the aspect of social mobility, but also from the changing status of the family in society. Sociologists have pointed out that the development of an industrial economy has been accompanied

[20] An excellent summary of French explanations of the decline in the birth rate is to be found in J. J. Spengler, *op. cit.*, Ch. VII.

[21] W. S. Thompson, *op. cit.*, pp. 39-40.

[22] J. J. Spengler, *op. cit.*, p. 163. Also P. Leroy-Beaulieu, *La Question de la Population*, Paris, 1913.

by a progressive disintegration of the contractual family, as a socially sanctioned unit of husband and wife, of parents and children, and of the circle of relatives.[23] The bonds uniting husband and wife have weakened, as has that uniting parents and children. Divorce in many countries is now little more than a legal formality, and the interests of children move at an early age beyond the circle of the home. There has been a growing rift between the reproductive system (i.e., the family) and the rest of social organization. Some claim that this maladjustment between family and society will eventually be corrected, others that the kind of reproductive unit which has been inherited from the past is fundamentally incompatible with present-day society, and hence must be replaced by a new unit.[24] What adjustments must be made to the family in the future is not relevant here, but the view that the family no longer holds the place in social organization that it did during the reign of Queen Victoria cannot be disputed.

This change in the family implies a change in the motives for child-bearing, as well as a change in the attitude to life of potential parents. When the developments in agriculture and industry, and in hygiene and medical science, began to improve mortality, and thereby increase the average number of living children per family, the need for the application of birth control was not felt immediately among all classes. The desire to control the size of the family must have been felt by many, although the knowledge of the means to give effect to that desire was hampered by the lag of education—and especially the education of women—behind technical advance. Many probably shared the view of J. S. Mill that the family was rarely large by the woman's desire. Queen Victoria herself, writing to her uncle, the King of the Belgians, in 1841, pointed to the great inconvenience and hardship of a large family: "Men never think, at least seldom think, what a hard task it is for us women to go through this (child-birth) *very often.*"[25] But for the great majority of parents frequent child-bearing, although it caused much suffering to the woman, did not raise serious economic problems. The children were frequently bread-winners by the age of ten, and even younger. In Britain they worked in the factories, shops and mines, and in the colonies they added to the rural labour force. Socially, too, the large family was

[23] An excellent illustration of this change is to be found in John Galsworthy's *Forsyte Saga.*

[24] K. Davis discusses these views in "Reproductive Institutions and the Pressure for Population, *Sociological Review*, XXIX, No. 3 (1937), pp. 289-306.

[25] Quoted in A. M. Carr Saunders, *op. cit.*, p. 110.

respected. Abortion and infanticide were frowned upon, and the ethical standards of the time forbade the use, and even the discussion, of contraceptives. Women were taught to believe that their appointed lot in life was marriage and the rearing of a large family. In France, the one country in which these traditional moral precepts had been seriously shaken by revolution, rationalism in regard to the family had taken root. Moreover, there the provisions of Napoleon's "Code Civil" which decreed that a man could only dispose freely of from one-quarter to one-third of his estate, according to the number of his children, made the large family a much more severe threat to financial security, especially among the peasant classes, than in most other countries of Western Europe. Further, it was in France that public opinion first hardened against the large family. As early as 1851 the Academie Française gave a prize for an essay on the theme that a country was fortunate when "la sagesse *publique et privée*" united to prevent rapid population growth.[26]

Apart from France, most of Europe and Europe overseas still believed in the expansionist view of population as an essential concomitant of commercial expansion, and national and individual prosperity. Malthus's spectre of the danger of overpopulation was forgotten by the middle of the nineteenth century. As we have seen from our analysis of the Commission of Enquiry in New South Wales in 1904, this expansionist view was still prevalent in the twentieth century.

But by the end of the century the economic benefits of the large family were much less certain, and the traditional dogmas and customs which had combined to eulogise the prolific were losing their hold. The introduction of compulsory education was also a blow to the economic security of the large family, for it kept the children off the labour market without in any way compensating parents for the additional cost involved. By the end of the century the family had become largely a biological unit which added nothing to the economic well-being of the parents, and which, if too large, hampered those social and community activities which women were beginning to demand as their natural right. The whole range of interests which both men and women were developing were taking them away from the home as the centre of their activities. Moreover, the rights which were demanded with the development of political democracy were those which gave the individual greater freedom, and which released both men and

[26] *Ibid.*, p. 109.

women more and more from any contractual obligation to family or community. It is true that the individual had to swear allegiance to king and country, for these years also witnessed the growing strength of nationalism, but within the nation to which he belonged the individual was claiming the right to set his own standards, and to enjoy freedom of thought and freedom of expression. Thrown back upon his own resources by the very liberties which he had won, the individual was not prepared to accept traditional ethical concepts if they did not help him to maintain or improve his individual well-being. Indeed, the search for individual security became the paramount object of life. This development of an individualistic outlook encouraged the spread of a rationalistic attitude towards the family, and the preaching of moralists who condemned the spread of birth control practices was comparatively ineffectual. In short, it may be said that nineteenth century capitalism and political democracy produced that peculiar being, *homo economicus,* and children were desired or not desired according to their capacity to add to or detract from the total happiness of the parents as measured substantially by material standards.

The emphasis upon the economic, and with it the social, aspects which this implies, goes far to explain the early spread of birth control amongst the middle classes of industrialized societies. The economic success which the owners of a moderate amount of capital frequently achieved as the result of their individual initiative thrust them into a social position which could only be maintained by continued economic success. They were conscious that they were not of those who sold their labour to live, and they consciously strove to keep their children from "falling" to that level. This implied education, frequently at a private school, beyond the level demanded by the State. The competition which had to be faced in the economic sphere was also apparent in the social sphere. In addition the range of wants among the middle classes widened with the industrial advance, but with the exception of the minority income was insufficient to satisfy those wants and to rear the size of family that would have resulted from an uncontrolled fertility.

The factors outlined above also assist in the explanation of the low fertility of the large metropolis, which became the hub of industrialized society. As we pointed out in an earlier chapter, the existence of a differential between urban and rural areas is not a modern phenomenon. It probably existed in Rome, and in pre-industrial England, and it does exist in India to-day. But the statistical analysis of most Western European countries in modern

times indicates that the rapid decline usually made itself felt first in the growing urban areas. It was in the city as it developed in the nineteenth century that the competition for economic success was strongest, and in which the opportunities for the enjoyment of the benefits bestowed by the technical and scientific advances of the times were most easily obtainable. Further, it was in the cities that the stratification of industrialized society was most apparent, and in which the opportunities for social mobility were greatest. Those cities, moreover, grew without any predetermined plan in regard to the family. The social environment became increasingly inimical to the family, and to the cost of food had to be added rent, transport, entertainment outside the home and education.

In our analysis of differential fertility we showed that the tendency has been for the gap to narrow between urban and rural areas and between the relatively prosperous and the relatively poor. In countries such as Australia, the United States of America and Britain, those who rely upon the sale of their labour are becoming increasingly conscious of the standards that have been the monopoly of the middle classes, and the demand being made by organized labour for improved material standards of living is fundamentally a demand for the right to enjoy what have so frequently been called bourgeois standards. Moreover, the so-called "working" classes have now attained an educational status which encourages them to restrict the number of their offspring, both for the fuller enjoyment of material benefits for themselves, and for the advantages thereby likely to accrue to their children. In addition, the availability, efficiency and relative cheapness of modern contraceptives increase the prospect of further family limitation amongst these groups of society, and every economic and educational advance is likely to strengthen the hold which the small family system already has upon western society.

Nor is there any longer any strong moralistic opposition to prevent the spread of birth control habits. Those in the past who have so frequently decried the practice of family limitation have more often than not been representatives of those groups of society which have been the perpetrators of the crime they condemn. Witness the report of the Commissioners in New South Wales in 1904, which prophesied national disaster unless the decline in fertility was checked, but who at the same time noted the comparatively low fertility of the economic and social groups of which they were representatives. The open expression concerning the

immorality of birth control has not been in accord with private practice. But to-day many of those classes who previously (openly at least) abhorred the doctrines of the Neo-Malthusians are moderating their attitude. Many denominations of the Church are no longer opposed to family planning, or even to the "proper" use of contraceptives. This change in attitudes, although not a primary cause of the decline in the birth rate, is creating a set of values inimical to any reversal of the small family habit. The same may be said of the derisive attitude of many towards the parents of large families.

Another "cause" of declining fertility which is frequently given is the pain of child-birth. But the fact that this can be submitted as a cause is illustrative again of the change in attitudes which has accompanied the improved material standards of life. Child-birth is considered by many to-day to be a major operation, despite the advances of medical science in this field, whereas in pre-industrial times it was accepted as almost a normal occurrence. The bodily discomforts associated with child-birth are evaluated as a greater factor to-day than formerly. It is not the reduction of physical pain in child-birth which is important, so much as the elimination of so many of the other bodily ailments and discomforts to which our forebears were subject.

A similar criticism may be made of other separate "causes," such as lack of domestic service, fear of war, or the shortage of houses. The modern small family habit cannot be explained by a number of such isolated factors, or yet by less specific items such as the emancipation of women or the decay of religious beliefs. These are all products of a changing environment, and are symptoms of the change in the attitudes to life as a whole that have accompanied the industrial and technical revolutions of the past century. Nor can any useful purpose be achieved by inviting individual women to express their views regarding the matter of family limitation. This procedure was adopted by the National Health and Medical Research Council of Australia in connection with its report on the birth rate in 1944.[27] The many points of view raised in the letters are interesting in themselves, but they add little that is new to the search for causes. The predominant note of many of the letters is that lack of security is the important factor preventing family increase. But what is meant by security? Is it merely a guarantee

[27] *op. cit.*, Annexure G, pp. 70-94, for an analysis of these letters. These letters cannot be taken as a fair sample of women's opinions. At best they can only be representative of those who are prepared to discuss overtly a subject which is still considered by many to be the secret and intimate concern of husband and wife.

of a steady job? Or is it this, together with sufficient income to enjoy a fair share of the amenities of our modern urbanized society? The real point is that so long as the present set of values is maintained—or, in other words, so long as Schumpeter's "homo economicus" is dominant—the search for security will be continued, and every increase in income will be measured against the opportunities it provides for a fuller life as a whole, and not against the increased number of children it will support. Again, fear of war, which also receives attention in the letters mentioned above, may have caused some young parents to refrain from adding to the number of their children (although before 1938 the birth rate was showing an upward trend in many countries), but the guarantee of peace will not necessarily result in larger families. On the contrary, many adventurous young couples may consider perpetual peace a sign of degeneracy and evaluate that as a reason for not having children.

It is impossible to assess the relative importance of the many subjective factors which cause each married couple to decide to have or not to have a child. That decision is frequently the end product of a multitude of other inter-related factors which cannot be adequately explained. But two aspects do stand out: First, industrial society has created an environment in which a large family and economic well-being are incompatible, and it is among those groups (e.g., the middle classes and the inhabitants of the large cities) in whom economic ambition is strong that the family is most severely limited in size. But it should be remembered that the control of the size of the completed family appears to be still the most significant feature of that decline. The desire to have at least two children still appears to be strong. Second, industrial and scientific progress has established sufficient control over the force of death in most Western countries to create a situation in which birth control in some form must be practised if low mortality rates are considered desirable. No economic and social organization has yet been fashioned that will stand the full fecundity of the human race, and in the long term human welfare is best served by the absence of rapid population growth. Moreover, past experience suggests that every improvement in material welfare will be accompanied by a further spread of the rational control of the size of the family as the habits and mores of the middle and higher economic groups are disseminated. It is questionable also whether the force of orthodox religion can regain sufficient influence to prevent the further spread of this small-family habit in modern society.

The prospect of extinction as the result of an inadequate fertility can only be avoided by a reorganization of our whole material environment, as well as by a reorientation of values, and this cannot be done by a system of repressive legislation which will compel the individual to act in a manner repugnant to his volition. A population policy, in short, must not become merely a system of bribes and punishments.

CHAPTER XI

SOME ECONOMIC AND SOCIAL CONSEQUENCES OF DECLINING FERTILITY

In the foregoing chapters we have shown that there has been a vast change in most white countries of the Western world in the structure and size of the family, and we have suggested that any sudden reversal of these trends is less likely in the future than the stabilizing of family size at a level which will either ensure a comparatively slow rate of growth, or result in a decline in numbers.[1] We have also suggested that this change in family structure was essentially the result of the change in economic and social environment which was brought about by the development of highly industrialized economies. In the immediate future the reverse of this situation may become apparent in many countries, and the structure of the family may begin to alter economic and cultural patterns. Some demographers and economists consider that this influence is already apparent. Glass observes that the trend towards smaller families has already influenced building design, the type of leisure, and the conception of the standard of living.[2] Harrod considers it very likely "that the world-wide increase in unemployment in the period between the two wars (1918-1939) was largely due to the slowing down in the rate of increase of population."[3]

The precise point at which population change has begun, or will begin, to affect the environment, as well as being affected by it, is difficult to determine, and must be conditioned by a number of variables in different communities; but there can be little doubt that the success of the laissez-faire economies of countries like

[1] The author does not accept the opinion of Mr. Colin Clark (*The Economics of 1960*, London, 1942, p. 10) that the upward trend in birth rates since 1935 seems to have marked the turning of the tide, and to indicate that "the great wave of contraceptive propaganda which swept over the world during the last generation now appears to have come up against something stronger than itself." Statistics of family structure do not support this generalization (see Chapters V and VII above), which shows a misunderstanding of the real cause of the spread of contraceptive practices.

[2] D. V. Glass, *op. cit.*, p. 372.

[3] R. F. Harrod, *Britain's Future Population*, Oxford Pam., No. H4, 1943, p. 20.

Britain, the Dominions and the United States of America in the nineteenth century owed much to the fact that they operated in areas of rapidly expanding populations and resources. The widespread belief that expansion was inherent in the nature of the economic universe was in a large measure the natural outcome of rapid population growth, and the view was freely accepted that this expansion was good in itself. No better illustration of this view can be found than in the Report of the New South Wales Commission on the Birth Rate, which expressed the fear that any reduction in the rate of growth of population would necessarily reduce the level of economic well-being, and that, conversely, any acceleration would add to the level of prosperity.[4] Now while it may be true that population increase did assist economic expansion, it is not valid to conclude from this that the cessation of population growth must inevitably lead to economic stagnation. This conclusion has a measure of validity only if we assume that laissez-faire capitalism is the *sine qua non* of economic progress.

This is not the place to argue the validity of this assumption. Rather let us examine the nature of the changes that are occurring in the composition of populations, and indicate some of the economic and social problems that may have to be faced in the near future. Then we may be in a position to consider the changes that may have to be instituted in our economic and social structure if survival is to be assured. The discussion which follows is essentially concerned with the first generation (approximately thirty years) of fertility decline, during which period there is no substantial increase in the total proportion of dependency, or decrease in the total population, and, unless otherwise stated, it assumes that there will be no migration to or from external sources.[5]

From the aspect of economic activity a population may be divided into two main groups: the dependent group, including children under the age of 15 years and adults aged 65 and over; and the productive group, comprising the population between the

[4] R.C. Report, *op. cit.*, p. 30.

[5] The most satisfactory treatise on the economic aspects of population decline is W. B. Reddaway's *The Economics of a Declining Population*, London, 1939, especially Part II. For excellent short statements of some of the main aspects, see D. V. Glass, *op. cit.*, Ch. VIII; W. S. Thompson, *op. cit.*, Chs. XVII, XVIII; G. Myrdal, *op. cit.*, Ch. VI, and J. J. Spengler, "Population and per Capita Income," in *The Annals, op cit.*, pp. 182-92. In all these works there is a considerable measure of agreement as to the nature of the economic problems that arise with a declining fertility, and their attitude to the solution of the problems that arise may be described as one of cautious optimism. For a brief comparative study of the extremes of pessimism and optimism, see R. F. Harrod, "Modern Population Trends," in *The Manchester School*, 10 (1939), pp. 1-20; and J. Jewkes, "The Population Scare," *Ibid*, pp. 101-21.

ages of 15 and 64. In most countries of Western Europe, the proportion of the total population in the aged dependent group (65 and over) has been increasing during this century, but this has been more than offset by the decrease in the proportion in the juvenile dependent section. Consequently the proportion of population in the productive group has continued to increase. In the immediate future many Western countries will experience comparative stability, and even a slight decline in total numbers, but there will be no serious reduction in the proportion of population in the productive group.[6] Assuming that pre-war (1939) levels of fertility prevail during the next generation, the reduction in the proportion of juvenile dependants will almost offset the increase in the aged dependants until approximately 1955-1960.[7] In Britain, for example, an estimate based upon this assumption indicates that the population may increase from 46,008,000 in 1937 to 47,501,000 in 1951, and that the total dependent group will comprise 30.5 per cent. of the population in the former year, and 30.7 in the latter. After that point of time, the proportion of aged will increase rapidly (13.8% in 1961, and 17.1% in 1971) and more than offset the reduction in the proportion of juveniles.[8]

In Australia, the situation until 1960 (assuming no immigration) will be similar to that of Britain. The projection of future population given above in Chapter VI indicates that there will be no substantial increase in the total proportion of the population in the dependent groups, the decrease in the juvenile section being offset by the increase in aged. The aged will increase in numbers from 0.51 millions in 1940 to 0.85 millions in 1960, and, as a proportion of the total population, from 7.2 to 10.7 per cent. Thereafter, according to the projection, the aged section will increase rapidly, to 1.06 millions in 1980 and 1.11 millions in 2000. The projections after 1960, based as they are upon an assumed fertility and mortality, are too long-term to be of much practical value. However, should the assumption of the projection (i.e., a Net Reproduction Rate after 1950 of 0.925) conform with reality, there will still be no marked

[6] But war casualties in Germany and France will increase their burden of dependency in the immediate future.

[7] F. W. Notestein et al., *op. cit.*, pp. 159-163, and Appendix IV, pp. 240-52.

[8] *Current Trend of Population in Great Britain*, Cmd. 6358, 1942, p. 11. This forecast provides the following picture:

	1937	1941	1951	1961	1971
Total Population (in 000's)	46,008	46,565	47,501	47,192	45,980
Dependent Groups as per cent. of Total:					
0-15 - - - -	22.1	20.5	19.1	17.9	16.5
Over 65 - - -	8.4	9.3	11.6	13.8	17.1
Total Dependent - -	30.5	29.8	30.7	31.7	33.6

increase in the proportion of all dependants, for the increase in the aged will be offset by a decrease in the juvenile section.

Thus the demographic situation with which Australia, Britain and many other Western countries are now faced is one in which there is likely to be a shifting balance of dependency from youth to age, without any marked increase in the total proportion of dependants, and with a comparatively stable total number of producers. In other words, the decline of the birth rate will not result in an immediate increase in the quantity of dependants which the producers are called upon to support.

Does this imply, then, that the burden of the dependants will be no greater than in an expanding population? The answer is almost certainly in the negative. In the first place, the reduction in the number and proportion of the juvenile population will not mean a proportionate decrease in the costs of children, for we have so far made substantial gains in improving the living standards of juvenile dependants with the use of relatively small resources. But in future the converse may hold. For example, a high degree of juvenile health has been achieved by comparatively simple public health measures; elementary education has been achieved at a low cost. But the future reduction of child mortality rates, which will be associated with elaborate clinical services for mothers and children, and the more advanced, specialized education which is now being demanded for every child, even to the tertiary level, will increase the public cost of rearing each child.

Second, turning to the aged dependants, there will be a rapid increase in the proportion of the yearly national income required for their support. The principle of economic security for those over the age of 60 or 65 who have not sufficient private means of support, is now accepted as desirable by most political groups, while a further development which shows promise of being accepted in the near future is the national superannuation of all who have completed their working lives, on the basis of contributions made during their productive years. These developments mean that provision for old age, whether for pensions restricted by a means test or for superannuation, will be a heavier drain upon the producer than it was formerly, and will probably more than offset any possible reduction which may be achieved in the cost of the juvenile dependent classes.

Thus the proportion of the total income of the community which will be required for the support of the dependent groups may be much greater in future than it was in the past. But again, in the

immediate future this burden of dependency should not become an intolerable drain upon the national income if a steady and high level of economic activity can be maintained. Can this be achieved in the demographic situation which we have been discussing?

During the first phase of the decline in fertility there is a tendency for the juvenile dependent section to decrease more rapidly than the aged dependent group increases, and consequently for the proportion of producers to expand. At this stage, the population has a high per capita producing capacity, and this may also result in a larger fund of savings to be invested. If these savings can be changed rapidly into useful producers' and consumers' goods, the decline in the rate of population growth may not affect adversely the level of living of a community. But in this situation, one of the stimulants for free investment, namely, population increase, will have been removed. Individuals may be less inclined to invest in a market in which the opportunities for expansion are limited and where a decline may be imminent. Moreover, the most likely avenues for investment will be those required to supply the demands of an aging population. There will be less demand for the essentials of life and more demand for the luxuries, and as the nature of the demand for the latter tends to be highly variable and capricious, this may lead to economic instability and structural unemployment owing to the necessity for a rapid switch in productive techniques.

The precise effect of the shifting balance of population upon each country, and the measures that will be required to meet it, will differ in each case. If, for example, the tendency towards a declining population can be accompanied by an expanding export market, the conditions favourable to a laissez-faire economy may be perpetuated, assuming that production can be expanded, in the absence of a greater numerical amount of labour, by improved techniques and invention. But in the absence of that factor, a declining fertility will produce a situation in which the element of risk will be greater for the owner of capital than in an expanding population. In the nineteenth century good judgment in investment was not always necessary to the success of an enterprise, and over-investment in either producers' or consumers' goods did not always bring disaster. But in a stationary or declining population there will not be the same pressure of economic optimism, or opportunity for the same margin of error in the case of rash investment.[9]

[9] For an elaboration of this point see A. G. B. Fisher, *The Clash of Progress and Security*, London, 1935, p. 155 et seq.

So far we have treated the productive population as a single group. The efficiency of two labour forces, whose totals are numerically the same and whose ratios to the dependent groups are identical, may, however, be different, for there may be a wide variation in age composition. In a population in which fertility has been declining for approximately a generation (again assuming no migration) the average age of the producer group will become progressively higher. This may be illustrated with figures for Great Britain and Australia, based on the estimates quoted above. In the case of Britain the population aged 15-65 will vary little between 1941 and 1961, totalling 32,666,000 in the earlier year, and 32,259,000 in the later. But over the same period the 15-30 group will decrease from 11,080,000 to 8,752,000 and the 45-65 group will increase from 10,689,000 to 13,339,000. In Australia the population aged 20-64 will increase from 4.15 millions in 1940 to 4.66 millions in 1960, but the increase will be proportionately greater in the older than in the younger groups. Those aged 20-49 will increase from 3.14 to 3.38 millions, or by 8 per cent., while those aged 50-64 will increase from 1.01 to 1.28 millions, or by 26 per cent. This change in the age composition of the working population will tend to render labour both psychologically and physiologically less mobile at a time when the mobility of labour may become increasingly important to meet the shift in demand engendered by the increasing average age of the population.

Summarizing our argument so far, we may say that in an economy which has been geared to expanding demand as a result of an expanding market, a continued decline in fertility for approximately a generation may increase the danger of unemployment, first because of the tendency for savings to increase as the opportunities for investment decrease, particularly in the production of essential consumers' goods and of producers' goods; second, because there will tend to be a shift in demand, as a result of changes in age composition and in the balance of dependency, from the basic human necessities to less staple commodities and services, for which the demand is more variable; and third, because labour will tend to become less mobile at a time when the necessity for greater mobility is increased. Finally, there is the problem of indebtedness which is likely to occur in a stationary or contracting community if the growth of capital equipment and public services has outstripped the expansion of population.

The possibility that these economic problems will arise is not, of course, sufficient reason for urging a rapid increase in population.

Unemployment on a large scale has occurred in rapidly expanding populations. There may be some justification for Harrod's view that the slackening of the rate of population was a factor in the level of unemployment in many Western countries in the nineteen-thirties; but it was only one of many factors in the situation. Moreover, the fact that Sweden and France—both countries in which population was comparatively stable in the 'thirties, and in which the decline in fertility was of long duration—suffered less severely than many other Western countries in which the rate of expansion of population was higher, may justify the opposite conclusion that with an economic readjustment the level of economic activity can be stabilized more readily in a stationary population than in an expanding one. This again, however, raises issues of economic theory beyond the scope of this chapter. Suffice it to add here that the effect of the depression in the 'thirties on various countries must be considered in relation to the whole framework of the economic organization and of the resources of each, and not merely to the level of population growth. The fluctuations in external markets, as well as internal, must also be taken into account.

Considerable attention has been given to the possibilities of areas of declining fertility offsetting the loss of opportunity for internal investment by finding new avenues of investment abroad. Some economists consider that those opportunities are diminishing, now that the empty spaces of the world have been settled, and that many Asiatic countries are developing a political and economic autonomy which will reduce the opportunities for investment. Professor Jewkes, on the other hand, took an optimistic view in 1939 of the prospects of continued huge foreign investments by the Western industrialized countries in China, South America and Africa.[10] Writing in 1942, Mr. Colin Clark also considered that the slackening of the rate of population growth would free capital for foreign investment, and observed that the United Kingdom would become the foremost supplier of capital in the post-war world because her working population would tend to decline.[11] These sweeping generalizations tend to gloss over a number of factors, political as well as economic, which may complicate the issue. All that can be stated at this stage, when the political and economic future of areas of low standards of living is so uncertain, is that during the first generation of declining fertility in an area

[10] J. Jewkes, *op. cit.*, p. 101 ff.
[11] Colin Clark, *op. cit.*, p. 83.

of high living standards (assuming the decline begins from the high rate of natural increase prevailing in, say, Britain and Australia about 1914) the capital available for overseas investment may increase as the opportunity for internal investment is reduced. But whether international events will give rise to those opportunities is another question.

The view that external investment must be expanded to absorb the surplus savings in a community of declining fertility tends to overlook the possibilities of internal readjustment to overcome the problem. For some time the internal economic problems will probably be less serious than is frequently imagined, because, as we have pointed out, the changes in the ratios of productive and dependent populations will occur slowly, providing time for the study of each problem of adjustment as it occurs. But if an adequate flow of producers' and consumers' goods is to be maintained it will be necessary to prevent both uneconomic investment and to encourage investment. The first measure implies foreknowledge of the probable demand arising from the internal market, which may be achieved by the encouragement of research by government and business institutions into the probable change in consumer demand arising from population change—a factor which may now be estimated with some accuracy for some time ahead as a result of the advances that have been made in the measurement of vital phenomena. The second implies such measures as the control of interest rates to encourage investment in enterprises in which the returns may be less profitable than in an expanding population, or the maintenance of consumption at a high level by the redistribution of income in favour of the low income groups. For example, the provision of social services for the lower income groups, financed out of general taxation, would help to maintain the level of demand for essential consumption goods and reduce the ratio of national saving to national income. In addition it may be necessary to encourage the switch of a proportion of investment from the production of commodities for the basic essentials of life to the production of goods in which an increase in demand may occur as the result of the growing proportion of older people in the community (for example, durable consumption goods such as motor cars, refrigerators and amenities for the home, and tertiary industries such as entertainment and higher education).

If private enterprise proves incapable of the necessary adapta-

bility to meet the changes which will occur in population structure in a situation of declining fertility, an extension of public control and public investment will be necessary. Public enterprise would at least have to take steps through the provision of educational services, labour exchanges and retraining facilities to encourage the mobility of labour, even although the need for greater mobility might be offset to some extent by the increasing ease with which a wide variety of industrial operations can now be efficiently performed by comparatively unskilled labour.

Few of the measures outlined above cannot be found in the plans which have been laid in Britain and Australia for the maintenance of a high level of employment in the post-war period.[12] These plans have been prepared without specific reference to the population question, but they are undoubtedly conditioned in some measure by the problems which arise out of changes in the composition and rate of growth of population, and their general application in practice may meet the major economic difficulties likely to arise from those changes. To attempt to plan further, and to anticipate the probable economic consequences of a rapid decline in the total numbers of population (which would begin to occur if fertility remained below replacement level for more than a demographic generation) would be an interesting academic exercise, but hardly one of great practical significance, for the nature of the problems which may arise at that stage will be largely conditioned by external factors which cannot be anticipated now with any degree of accuracy. Moreover, nationalism is still sufficiently strong to justify the conclusion that no Western country will willingly permit this phase to occur, even if it means a totalitarian state, and the prospect of rapid decline is still sufficiently remote in most countries to allow us to leave the problem to the next generation. Rather than consider the principles of economic organization that may evolve as Western countries begin to vanish from the earth, we should consider the means by which they may survive, assuming that the majority of Westerners still believe, despite the present—and temporary, we hope—phase of cynicism and disillusionment, that our civilization is worth preservation.

The desire for preservation, and the urge for measures to ensure it, may indeed be strengthened by the very changes in population

[12] See, for example, Sir Wm. Beveridge, *Full Employment in a Free Society*, London, 1944; The White Papers on *Employment Policy*, 1944 (presented to the British Parliament in 1944), and on *Full Employment in Australia* (presented to the Federal Parliament in 1945).

structure which we have been discussing, for the increasing average age of the population may encourage institutional changes in the interests of security. This search for security may turn attention to measures which will ensure the maintenance of a "replacement-level family," as well as to the adequate provision for old age, although the first emphasis will probably be upon the latter. Already comprehensive social service policies in many countries are endeavouring to establish the principle of security from birth to death. Such policies are to a considerable extent the reaction from the mass unemployment and uncertainty of the period between the two world wars, and they are the product of governments whose political philosophies have been opposed to the principles of laissez-faire. There is now general agreement that the dependent members of society, both juvenile and aged, should be provided with at least a minimum of economic security by the state, and political power will be given to those who can best satisfy that demand. As the aging tendency of the population increases in a situation of declining fertility the demand for public support of the aged will increase, for neither the economic structure (e.g., the absence of a self-sufficient agrarian economy) nor the social institutions (e.g., the modern flat and small cottage) of modern Western communities are adapted to the care of the aged by their children. And as this burden of aged dependency becomes heavier, the demand will also tend to be pressed by parents of young families for further public assistance for the juvenile dependent groups. If this total burden of dependency is to be carried it will be imperative to maintain a high and steady level of employment and prosperity. In an aging population, therefore, the demand for security is likely to be pressed with increasing vigour, and in political democracies the political parties which will be returned to power will be those which can guarantee stability rather than those which hold out the promise of imaginative enterprise.[13]

Myrdal[14] has suggested that the aging tendency of a population which will result from declining fertility will block individual

[13] The argument outlined above may be considered in connection with the Australian Federal elections of September, 1946. It is possible that the promise of child endowment for the first child, which the Liberal Party offered, was a *political* mistake. A guarantee of national superannuation for all over the age of 65 may have gained more votes. Further, the Labour Party's emphasis upon the fact of economic security of the past few years, rather than upon future propabilities, was good political psychology. It is questionable, too, in view of the widespread demand for security, whether the Liberal plank of reduced taxation appealed to many of the wage-earners. A promise of more liberal social services may have been more attractive.

[14] G. Myrdal, *op. cit.*, p. 165.

opportunities to rise socially and economically, and that in this situation people will become discouraged, and lose both their dynamic interest in working life and the mental attitude that goes with progress. Consequently, the controls that will have to be exercised to sustain economic activity as population decline occurs "must unfortunately be expected to take on an administrative, bureaucratic, senile character," and government will be "principally in the power of old men." This latter contention is an extreme view of what may occur if fertility decline continues over a period long enough to result in a continuously decreasing population;[15] but even in the early stages of decline, the increasing average age of the productive population will tend to increase the difficulties for advancement of the young men and women. Assuming that the average age of retirement remains constant, there will for some years be an increasing number of people approaching the end of their productive lives. This may increase the opportunities for those approaching the age of employment to find work, but at the same time the opportunities for advancement by the younger working groups will tend to be blocked by the expanding number available for the higher paid positions which will be falling vacant. If the principle of appointment by right of seniority, which is now widely accepted (e.g., trade unions and the public service), is maintained and extended, it will thus take longer for the young person to attain a position of responsibility with a contracting, than with a stable or expanding rate of population growth. The one clear advantage which youth will have over age is the greater adaptability of the former to meet the changes in skills and location of employment that are likely to occur, but even this may be lost if future industry requires machine-tenders rather than persons with physical and mental agility.

When we turn to consider in more detail the implications for Australia of past trends in fertility, it is necessary to take into account both internal trends and those in both Western and Eastern countries with which Australia has economic and cultural relations. Unlike many of the countries of Western Europe (e.g., Sweden and the United Kingdom) the carrying capacity of Australia is still considerably in excess of the present population, or the population which this country is likely to attain within the next two or three generations. The lower limit of estimates of the population which Australia can carry at existing or higher standards of living is in

[15] These political consequences may be avoided to some extent in the future by lowering the age of franchise.

the region of 15 to 20 millions.[16] The discussion of the optimum carrying capacity of Australia is of little practical value, even if we could anticipate the future of technical progress;[17] but the development of industrial and agricultural techniques will expand rather than reduce the potential of this country, and it thus appears certain that immigration must continue to play an important part in Australia's population policy if the maximum use is to be made of the country's resources. For this reason fertility trends in overseas countries from which immigrants will be sought must be taken into account. If those immigrants, together with the Australian-born population, prove insufficient to develop to the maximum the known resources of Australia, the study of the effects of past fertility trends upon the future becomes even more complicated, for it raises the issue of the claim of the non-European peoples to share in Australian development.

The external factors related to fertility trends in Australia will be treated in later chapters.[18] At this point, however, let us consider some of the internal implications of recent trends. The first fact to be emphasized is that, so long as recent fertility trends continue, the Australian population will fall far short of the estimated possible maximum of 15 or 20 millions, and as we observed above (Chapter VI) may only attain a figure of approximately 8.20 millions in 1980 (without immigration). But even more important than the probable maximum are the changes in the age composition of the population which are occurring now, and which will continue to occur in the immediate future. On the basis of the estimate in Chapter VI there will be a slight increase in the total bread-winning population between 1940 and 1950 (from 4.15 to 4.60 millions), but in the succeeding decade there will be little change (4.66 millions in 1960). The rate of increase in this productive group will diminish because of two factors—the reduction in the numbers entering the employment market, as a result of the steady decrease in births after 1922; and the greater numbers reaching retiring age. In the immediate pre-

[16] For a summary of the estimates of the future carrying capacity of Australia, see J. Andrews, "The Population Carrying Capacity of Australia," in *Australian Population* (papers prepared for the 2nd British Commonwealth Relations Conference, 1938). See also Griffith Taylor, *Environment, Race and Migration*, Toronto, 1937, pp. 402-450. Taylor estimates that when Australian resources are developed to the same extent as those of U.S.A., Australia will have a population of some 20 millions, and that the population will be concentrated in areas already settled by 1865.

[17] For a lucid criticism of the unreality of the theory of the optimum population see G. Myrdal, *op. cit.*, pp. 140-144. Myrdal describes the theory as "a speculative figment of the mind without much connection with this world" (p. 143).

[18] See Ch. XIV.

war years, roughly 120,000 persons attained the age of 15 each year, 22,000 died between the ages of 15 and 64, and about 45,000 were reaching the age of 65, leaving a net natural increase in the working age-group of approximately 53,000 a year.[19] By 1948 those attaining the age of 15 will have been reduced to approximately 101,000, while those reaching 65 will have increased to 58,000. Allowing for mortality during working age, this implies a net increase of the 15-64 group of approximately 20,000, or less than half the pre-war figure.

The net natural increase of the productive population will increase temporarily in later years as the children born during the war (1939-45) attain employable age, but that increase will probably be transitory, for reasons we have already discussed.[20] In the immediate future, however, there may be insufficient Australian-born labour to complete the post-war plans that have already been laid, without a continued shortage of consumption goods. It was estimated before the war that the domestic supply of labour would probably be barely sufficient for a moderate development of secondary and tertiary industries in the ensuing years.[21] And the situation has been aggravated by the war, which has given an impetus to Australia's industrial development and at the same time left the economy with a deficit of the capital equipment necessary for the normal flow of consumption goods. The lack of any substantial increase in the productive population of Australia may thus, in the absence of immigration, prolong the lag in the post-war period between the replacement and renewal of capital equipment and the production of consumption goods. Even allowing for the improved efficiency of industrial techniques as a result of the war-time experience, there is little doubt that Australia has not the human resources necessary to take full advantage in the immediate post-war period of its potential industrial capacity. Production may be increased in either consumption goods or capital goods, but not easily in both; and in the absence of population increase it may be necessary for some years to direct investment into the most socially desirable channels. If the lag created by the war in housing, educational and hospital construction, and plant and

19 W. D. Forsyth, "The Future Requirement of Immigrant Labour Supplies in Australia," in *The Economic Record*, XV, No. 29 (1939), p. 224, n. 4.

20 Chapters V and VI.

21 Forsyth, in *The Economic Record*, op. cit., p. 229. See also his *The Myth of Open Spaces*, pp. 108 et seq., and R. B. Madgwick, "Immigration," in *The Economic Record*, XII, No. 22 (1936), pp. 71 et seq. Madgwick concluded that population would not increase in the future (without immigration) at a pace commensurate with the needs of industry.

machinery, is to be overcome quickly, investment may have to be directed into these channels at the expense of consumption goods other than the basic necessities, so that while the level of income may remain high, real standards of living may fall.

Government planning through the National Works Council and allied bodies is preparing large-scale public expenditure embracing maintenance and renewal works which have been deferred as a result of the war. In the first report of the Co-ordinator General of Works it was estimated that urgent post-war works to the value of £500 million were required, compared with a pre-war annual expenditure of less than £100 million. These works included building (excluding housing), water supply and irrigation, forestry, sewerage and drainage, and roads and bridges. In addition there is the long-term project of the unification of Australia's railway gauges.[22] To these must be added the large-scale overhaul of city transport systems, hospital and school buildings, and the erection of more than 100,000 houses. The financing of these projects through taxation and public borrowing will be the smallest of the problems involved. More important will be their effect upon the demand for consumption goods and upon the capacity of the economic structure to meet that demand. The redistribution of income and employment which these works will involve will increase the demand for consumption goods, but at the same time they will (in the absence of immigration) accentuate the pre-war tendency for population growth to lag behind industrial requirements. If an inflationary tendency is to be avoided it may be necessary to limit public works after the essential renewals and replacements have been achieved and give priority to investment for consumption goods.

If Australia were content to organize its economy on the basis of primary production for export, the need for increased labour supplies would be diminished, but for obvious reasons this course will not be followed. In the first place such a policy would reduce the capacity of Australia to defend itself in the event of a recurrence of war; and, secondly, it would add weight to the argument of those who claim that the Australian population is too small to utilize fully the known resources of the country. Further, such an economy would leave Australia open to the influence of fluctuations of the overseas market for primary exports, and would be a reversal of the policy which has been adopted since the depression of

[22] For an excellent summary of the public works projects being prepared by the Commonwealth Government, and of the methods of financing them, see R. I. Downing, "The Planning of Public Investment in Australia," in *The International Labour Review*, LII, No. 4, 1945, p. 352 ff.

"insulating" the economy against such factors. Thus it would be unrealistic to discuss Australia's economic future and its relation to population requirements on any other assumption than the continued development of secondary and tertiary industries.

But obviously there is a limit to industrial expansion, set by manpower and resources, and it appears likely that, in the absence of immigration, the former will be the more important limiting factor in Australia. With improved efficiency to reduce costs, industrial production can be expanded beyond the pre-war level, but it appears to be false optimism to see Australia in the situation of the United States of America in the 'eighties of last century. Not only does the former lack the potential resources of the latter, but it faces a demographic situation which is entirely different from that which confronted the United States in the nineteenth century. American industrialization was encouraged by the tremendous inflow of labour and capital from abroad; Australia is preparing her industrial expansion at a time when the reservoirs of immigrant labour have virtually dried up.[23] The most she can hope for is a sufficient inflow of immigrants to enable her to offset some of the shortages in labour supply which are now occurring as the result of almost a generation of declining fertility. Without such an inflow, there is no reason to believe that Australia will not be able to maintain, and even to expand to a limited extent, the pre-war level of industrial development, for there will be no early reduction in the total labour supply, and there will be scope for improved efficiency. But in the absence of an expanding export market, the opportunities for investment will be limited, and without careful control, either by a central planning authority or by the foresight of the owners of capital, there will be a danger of over-investment. Particularly is this true of the immediate post-war years when capital accumulation is likely to be in excess of the available labour supply. Nor will an expanding export market alone solve the problem in the long run, for it will tend to strain still further the stationary labour force, and may deplete still further the goods available for internal consumption.

Australia has reached the intermediate stage of a declining fertility when the total proportion of dependency is low, and, consequently, when the total proportion of the population of productive age is high. In an economy in which per capita income is high there tends normally to be during this stage a high level of savings

[23] For a full discussion of this aspect of Australia's population problem see W. D. Forsyth, *The Myth of Open Spaces*, op. cit.

and reduced scope for investment in durable producers' goods, and consequently an expanding demand for current consumption, particularly for goods other than those associated with the basic necessities of life. But the position in Australia is abnormal, in-so-far as a large proportion of the savings available must now be diverted to arrears, caused by war, in the nation's capital equipment. Once those arrears have been dealt with, the economy may perhaps be stabilized for a time with a higher proportion of incomes available for consumption goods, which may enable higher material standards of life to be attained than before 1939; but unless measures are also taken to raise fertility to replacement level the increasing burden of dependency will tend to upset the balance within a generation. Moreover, our study of differentials in fertility and family structure has suggested that an economy planned to increase the consumption of goods which require urban and factory labour may accelerate the decline in fertility, unless ways are devised to change the social environment in which those goods are produced. If a still higher proportion of the population than in the past is to be employed in other ways than the production of primary products, the tendency towards metropolitan concentration may be increased, unless the new industries are established in rural or small town areas.

In summarizing our discussion of the consequences of declining fertility for Australia, we may state that, considered without reference to international questions, the problems arising from a declining rate of growth can be overcome, and that a high material standard of living can be achieved once the short-term dislocations caused by war are overcome. But such an approach to Australia's problems tends to be unrealistic, because Australia is being forced into a policy of economic expansion in her search for security in the international sphere. Such a policy will require an influx of immigrants with the skills necessary for work in secondary and tertiary industries, not merely in order that they will expand the opportunities for investment at a time when capital accumulation is tending to increase, but also in order that they will enable the fullest use to be made of the known resources of the country. There appears to be no practical alternative to such a policy, but it may force this country to liberalize its traditional attitude to immigrants before it succeeds. The avowed policy of the present government is population increase, and in this regard it is following in the footsteps of its predecessors, although the population target has been reduced from a hundred millions to a modest twenty millions.

By this aim, Australia has in effect admitted to the world that this country has more resources than the present population can fully utilize, and failure to attain the target will leave Australia an underpopulated country in the eyes of those seeking room for expansion. Immigration, however, is only one side of the picture. The other, and more important, is the maintenance of fertility at, or above, replacement level.

PART IV

POPULATION POLICY

CHAPTER XII

THE SEARCH FOR PRO-NATALIST POLICIES

THE late Lord Stamp, speaking in the House of Lords in 1939, stated that the reason why there is so little popular apprehensiveness on the subject of population decline is that "we are still living under the social illusion of continuous expansion. . . . We have got so used for a hundred years to this continual increment that we are not yet attuned to the thought, not merely of becoming stationary, but of a reversal of the process."[1] There have been few periods, however, when there has been any clear sign of "popular apprehensiveness" of population trends. Throughout most of man's recorded history population growth has been conditioned by the environment in which he has lived, increasing when the supply of foodstuffs has been abundant, and decreasing when it has been scarce. The only real difference between the modern situation and that which prevailed in pre-industrial times is that both the concepts of what constitutes the necessities of life, and the means of control, have altered. Subsistence now includes a wide range of consumption goods and services, as well as food, and the size of the family is now determined largely by the supply of the former, instead of the latter. The possibility of adjusting the size of the family to enable individuals to attain what they, as individuals, consider to be the maximum of satisfaction in a given environment has been greatly increased; and they are not, and will not readily become, apprehensive regarding the results of their decisions upon the economic and social welfare of the next generation, or upon the community or nation at large. This explains why there is little popular concern to-day about the implications of the decline in fertility for future economic and social organization, and why the exhortations of moralists and national leaders to the people to have more children have not succeeded. In the modern Western community, with the prospects which it offers for the rational control of family size, moral exhortation will not change family patterns, unless it is also accompanied by a radical

[1] Quoted in R. & K. Titmuss, *op. cit.*, p. 53.

overhaul of the whole environment. Failure to recognize this fact has been the cause of the lack of success of pro-natalist policies in the modern world, as indeed of those of earlier times.

Population policies are not new. They are at least as old as the Babylonian code of Hammurabi, which attempted to exercise some control over abortion.[2] But in practice these policies have usually had as their aim population increase, and not decrease or stability. Moreover, they have generally taken the form of bills of pains and penalties directed against the infertile and celibate sections of the community, and have not aimed at creating an environment (e.g., an increase in the supply of foodstuffs) to reduce mortality, or to encourage people to increase voluntarily the size of the family. That population increase has been desired by the ruling classes in western civilization is not surprising, because the retention of their position has usually depended upon the numerical strength of the people whom they have governed and upon whom they have relied for military power, and man's command of resources has been so tenuous until modern times that population decrease has been imminent as the result of the ravages of war, famine and disease.

Utopian plans have at times been prepared with the object of providing a complete integration of demographic and environmental factors. Plato, for example, planned what he considered to be an ideal social environment and then proceeded to outline demographic controls to fit his scheme. He visualized a community with a constant population of 5,040 citizens—at most forty or fifty thousand people in all, including slaves and children—in which the government should control the age of marriage for men and women, the persons who should mate, and the number of children who should be born. Much later, Sir Thomas More's "Utopia" postulated the same notion of a community with a constant population, in which no city should contain more than 6,000 persons, and in which no family should have less than ten or more than sixteen children. More realized that there could be no precise control of the number of children who were born and lived; but the balance of the average size of families was to be kept by removing some of the children of the fruitful to those who did not abound in them. In like manner, the size of cities would be regulated, some of the people from those which bred rapidly being removed to those which bred slowly. If the whole Commonwealth bred

[2] Glass, *op. cit.*, p. 86.

too rapidly, emigration was to be resorted to. More's scheme undoubtedly emerged from a study of Plato's Republic.

Plato's abstract theories dealing with the functions of the state in regard to population were essentially a reflection of measures which had already been adopted. In actual practice, however, the Greek city-state, even idealized Sparta, had none of the precision of Plato's plan, but the approach to the population question was similar. The City-State was considered to be the most satisfactory socio-political unit, and population was to be regulated to fit that unit. When wars took their toll of young men, early marriage was urged by the State and bachelors were subject to legal and political disabilities; in times of peace late marriages and emigration were encouraged. In addition infanticide was frequently resorted to as a eugenic device to preserve quality. The City-State was a work of art, in which the balance between demographic and environmental factors was to be maintained by law.[3]

The Greeks came nearer to a scientific plan to control population than any other civilized people, either before or after them. After them, the emphasis was upon expansion rather than upon stability of numbers, and frequently the aim was security. The Emperor Augustus of Rome, who was probably more concerned with the maintenance of the Senatorial families than the increase of the people of the Empire as a whole, decreed that men and women were to be married and have children before the men attained the age of twenty-five and the women twenty. The partners of sterile marriages were liable to penalty, and those of prolific marriages were to be the recipients of state honours and privileges. But these measures did little to change the social environment of Rome, which (as the writings of Polybius indicate) had been unfavourable to procreation for more than a century before Augustus took action. For this reason the Augustan legislation proved of little avail. The ruling classes of Rome, bent upon the pursuit of luxury and vice, were in no mood to be bound by the bills of pains and penalties devised by their Emperor.

With the Romans there was not the same attempt as with the Greeks to identify population policy with environmental factors. The same is true of the later history of Europe in Christian times. Expansionist policies were encouraged when it was considered that

[3] An excellent treatment of classical and medieval population policies is given in C. E. Strangeland, *Pre-Malthusian Doctrines of Population.* For classical doctrines, see Ch. I. A useful summary, drawn largely from Strangeland, is contained in H. Wright, *Population*, Cambridge, 1923, Ch. I. See also W. S. Thompson, *op. cit.*, Ch. I, and A. Landry, *op. cit.*, Ch. II.

more manpower would increase the security of the state or nation, or after some catastrophe had severely reduced numbers. Thus, after the Thirty Years War, which is believed to have reduced the population of the German Empire by two-thirds, German literature contains many works which emphasize the need for greater populations. The rise of nation-states, which were struggling for political and economic supremacy in Europe in the sixteenth and seventeenth centuries, also encouraged the adoption of measures to increase population. Population growth was but part of the general theory of that expansion in both the commercial and industrial fields, which was a fundamental tenet of the mercantile system.[4] But again there was no scientific basis for these views regarding population, and in general the Roman view was accepted that the number of people could be increased by a system of bribes to the fecund and penalties to the sterile.

The techniques applied by many European monarchs and their ministers in the seventeenth and early eighteenth centuries were broadly similar—to discourage celibacy and encourage marriage and the raising of families, to promote immigration and to prohibit emigration to areas other than colonial territories of the mother country. The most thorough application of these ideas was seen in Colbert's work in France. By an edict of 1666 persons liable to taxation who married before the age of 20 were exempt from all taxes and other public charges until their twenty-sixth birthday. Those who married at the age of 21 received similar exemptions up to their twenty-fifth birthday. Fathers who had ten living legitimate children, provided none of them were priests or nuns, were exempt from all taxes and public charges for life. To ensure the maintenance of the nobility, which was considered essential to the support of the crown and the power of the state, nobles with ten living legitimate children were to receive annual pensions of 1,000 livres a year. Those with twelve children were to receive twice this amount. Half these amounts were also to be paid to bourgeois inhabitants of free cities who had the requisite number of living legitimate children.[5] The edict appears to have had little effect in practice. So few of the nobility applied for pensions that in 1667 pensions were offered to all subjects without distinction of class. Unwillingness to encourage marriages between Catholics and Protestants, or to grant aid in the case of mixed

[4] C. E. Strangeland, *op. cit.*, Ch. VI.
[5] Glass, *op. cit.*, pp. 91-92.

marriages, increased the ineffectiveness of Colbert's pro-natalist policy, and in 1683 the edict was withdrawn.[6]

Measures similar in their aim were tried in other countries. Maria Theresa, in 1767, permitted soldiers to marry and encouraged them to do so by a grant of an endowment for each legitimate child. Measures similar to Colbert's were applied in Savoy and Lorraine. Besides pro-natalist measures, most European states, including England and Wales, also attempted to encourage immigration to increase the population.[7]

Nevertheless, this expansionist view of the mercantile era did not imply unlimited growth. The states which encouraged population expansion also accepted as fundamental certain tenets of the Christian religion, which discouraged illegitimacy and polygamous marriages, and which were probably as restrictive in their effects as the Christian condemnation of infanticide and abortion was expansionist. Moreover, throughout the sixteenth and seventeenth centuries, and even during most of the eighteenth, the Western world still had such a slender control over the resources of the land on the one hand, and disease on the other, that the mortality rate was still a restrictive force potent enough to offset any expansionist policy.

In the eighteenth century, moreover, the contention that the rights of princes were synonymous with the rights of men was being challenged. The Physiocrats of France began to question the more the merrier theory, and to point out that Europe was becoming so densely populated that people would soon be pressing against the available food supplies. In 1750 in the United States of America Benjamin Franklin postulated the theory that Europe was almost fully peopled and that population would increase but slowly thereafter because of the limit of subsistence. These ideas were the forerunners of important attempts to find a law of population by which the relationship between man's demographic condition and his material environment could be scientifically explained. The search culminated in the writings of Thomas Malthus, who published the first edition of his Essay on the Principles of Population in 1798.

To the demographer and the sociologist Malthus's work constitutes an important advance in technique (despite the author's errors in judgment and his dependence for his basic ideas upon his immediate predecessors, such as David Hume and Adam Smith

[6] *Ibid.*, p. 93.
[7] *Ibid.*, pp. 93-96.

in England, Benjamin Franklin in America and Johann Sussmilch in Germany) for it denotes an attempt to analyse in detail man's reactions to his environment, and in this regard it is a pioneer in the field of human ecology.[8] But the wide acceptance of Malthus's thesis that population tended to grow faster than the available food supply, and that any attempt to increase production was (in the absence of his preventive checks) like setting the tortoise to catch the hare, did not lead to any positive anti-natalist policy. Nevertheless his influence was apparent in England in the severe measures applied as a result of the Poor Law Amendment Act of 1834 (e.g., the separation of man and wife in poor houses) to discourage propagation amongst those who were in receipt of public assistance. Further, the fear of overpopulation as a result of the Malthusian law was a convenient argument against increasing the wages or improving the working conditions of the labourers fully employed, as well as for promoting emigration. In France, too, in the first half of the century there was a strong body of opinion which was opposed to rapid population increase, and the Prefects of a number of departments advised the people in their areas to limit the size of their families.[9] Bourgeois opinion was also inclined to oppose *crèches* and the practice of vaccination in the 'forties as possible sources of population pressure.[10]

Malthus had greater influence upon official policy relating to demographic matters than any later population theorists during last century. After the middle of the nineteenth century, when the bogey of overpopulation raised by Malthus had disappeared, and when the prevailing attitude in regard to population was similar to that held earlier by the Mercantilists, there appeared to be little need for state interference, for the rate of population increase continued to expand.

There were, however, two important exceptions in this regard. In France, where a decline in the birth rate had been in evidence since the Revolution, pro-natalist measures were again receiving attention by the latter half of the nineteenth century, despite the considerable body of opposition to population increase in earlier years. In 1860, the Ministre de la Marine granted 10 centimes per day per child to the lower ratings of the French Navy who had

[8] The term *ecology*, which was first coined by Ernest Haeckel as an aspect of plant and animal biology, was first used in the study of human societies by Robert E. Park in 1915. Human ecology is concerned with the relation of human organisms to their environment. For a discussion of human ecology see L. Wirth, "Human Ecology," in *The American Journal of Sociology*, L, No. 6 (1945), pp. 483-488.

[9] Glass, *op. cit.*, p. 146.

[10] J. J. Spengler, *op. cit.*, p. 225.

served more than five years. By 1891 the principle of family allowances had been applied by a number of French industrialists and had received the support of Pope Leo XIII in his Encyclical, *De Rerum Novarum*. By 1914 some thirty additional firms had adopted some form of family allowances, while grants were also given to certain grades of persons employed by the Treasury, the Post Office and the Colonial Office, as well as to school teachers and to the minor officers and men of the army.[11]

The other exception is an Asiatic and non-Christian country which was busily adopting western industrial techniques in the latter half of the nineteenth century. Population growth in Japan had probably been slight in the eighteenth century, partly because of the widespread practice of abortion and infanticide. Attempts were made to increase the rate of growth by prohibiting these practices and by subsidizing poor families, as well as by moral appeals. After the restoration of the Meiji in 1867 these measures were intensified. In 1873 a term of a hundred days' imprisonment was imposed for abortion, infanticide was classed with murder, and rewards were offered to those providing information which would lead to the capture of offenders. In addition, funds were set up by a number of societies for subsidizing the birth of children.[12]

Before the nineteenth century closed, however, there was a growing fear in official circles in many countries that population growth was lagging behind requirements; but in most cases it was the large volume of emigration, rather than the birth rate, that caused this concern. In the twentieth century the concern deepened, and attention was turned increasingly to the birth rate as well as to the question of immigration. In Britain, a foretaste of the later fear that the mother country would not be able to continue her role as a source of emigrants for British overseas territories was expressed in 1907, when the Imperial Conference was informed that Britain, because of a falling birth rate, could not afford more than 300,000 emigrants a year.[13] This note was to run through almost every official enquiry after that date in regard to emigration,

[11] Glass, *op. cit.*, p. 100. Glass's work is the most thorough comparative study available of the historical development of population policies and of immediate pre-war (1939) measures in European countries. An excellent historical summary of French pro-natalist measures is also available in J. J. Spengler, *op. cit.*, p. 218 et seq.

[12] R. Ishii, *Population Pressure and Economic Life in Japan*, London, 1937, pp. 14-16, 31-37.

[13] *Supra.*, Ch. V, p. 62, n. 8.

but no official measures were taken to encourage a higher birth rate.[14]

Similar concern about the birth rate was common in other European countries. For example, a study by M. Von Gruber lamented the decline of the birth rate in Germany and urged measures to check it which were very similar, in many aspects, to those adopted later in Nazi Germany and other countries. He advocated the building of houses especially designed for families, allowances to families of three and more living children, old-age pensions to those who had brought up at least three children, and compulsory insurance to entitle married women to monetary assistance during pregnancy and child-birth; as well as the traditional measures of civil distinctions to parents of large families, special taxes upon the infertile, the suppression of birth control and other Neo-Malthusian propaganda and rigid control of abortion. In addition, German newspapers were devoting considerable space before 1914 to the evils inherent in a declining birth rate.[15]

In France, Dr. J. Bertillon[16] and Paul Leroy-Beaulieu were also advocating measures between 1890 and 1913 to establish what they considered to be a normal average family, i.e., a family of three children.[17] Their ideas merit close scrutiny because of the emphasis they placed upon ecological factors. Bertillon considered that measures to increase or decrease restrictions on divorce, to reduce involuntary sterility by diminishing the incidence of venereal disease or alcoholism, or to diminish mortality, would have little effect upon the level of births. Measures he considered efficacious were: a steeply graded system of concessions on the personal taxes of *menages* in favour of those with children, with complete exemption to those with four children; control of inheritance taxes to

[14] But many public bodies in Britain continued to express their grave concern regarding population trends, and in some cases attempted to bring pressure to bear upon the government: For example, a National Birth-Rate Commission was set up by the National Council of Public Morale in 1913. The Commission, which consisted largely of religious and medical representatives, and which sat for two and a half years, sought by its enquiries and recommendations to encourage a policy to sustain population increase. It published two substantial reports: *The Declining Birth-Rate: Its Causes and Effects*, London, 1916; and *Problems of Population and Parenthood*, London, 1920.

[15] Glass, *op. cit.*, pp. 270-271.

[16] *Ibid.*, p. 149. Dr. Bertillon founded in 1896 the *Alliance Nationale pour l'accroissement de la population française*, which was concerned with demographic research as much as with publicizing the prospects and dangers of population decline. This society was largely responsible for an extra-parliamentary commission on population in 1902, two years before the Royal Commission in N.S.W. The former, however, like the latter soon died of inanition.

[17] For a summary of their suggestions for a pro-natalist policy, see J. J. Spengler, *op. cit.*, p. 234 et seq.

assure that when the number of direct heirs was less than three the amount received by each heir would be no greater than if there had been three heirs; limitation of military requirements to one child per family; family allowances for the second and subsequent children of government employees and workers, and of needy families not employed by the government; the reservation of the majority of government posts and honours (e.g., scholarships) for members of families of three and more children; and arrangements favourable to procreation, such as leave with pay for pregnant women in employment, pensions for fathers of more than three children, community aid for poor families, reform of the electoral law to provide each elector an additional vote if married and a further vote for each minor child, fetes in honour of parents and children of large families, and the suppression of neo-Malthusian propaganda and practices.

Bertillon's measures were influenced by his belief that the Roman measures, upon which he based many of his ideas, had been successful. Leroy-Beaulieu, on the other hand, opposed punitive measures on the grounds that men would neither marry nor procreate to escape punishment. On other matters he was in substantial agreement with Bertillon.[18]

As in the case of Von Gruber in Germany, these measures were similar to many of the pro-natalist schemes that were to be tried in various countries after the war of 1914-18; but in France, whence many of the ideas originated, a comprehensive population policy did not emerge until 1939. The family allowance system was extended, but, in the first instance, rather because it was considered socially desirable in itself, than because of its possible effect upon the level of fertility. The extension of the system was largely the result of the strong demand of labour during and after the war of 1914-1918 for increased wages, and it was favoured by employers as the least expensive method of meeting that demand, as well as of preventing men with families from joining the revolutionary activities of Trade Unions.[19] By 1918 allowances were paid to all servants of the central government, as well as to the employees of many private firms, particularly in the engineering and metal industries. At first these benefits were paid direct to the worker by the individual employer. In such a scheme there was a danger

[18] *Ibid*, p. 235.

[19] For a summary of the extension of the system in France since 1918 see *The International Labour Review*, LII, Nos. 2-3 (1945), pp. 196-210: "Family Allowances in France." Also, Glass, *op. cit.*, pp. 99-125, and 145-218. The material which follows on France is drawn largely from these two sources.

that the employer would endeavour to cut costs by refusing to employ married men with families. To offset this, equalization funds were created. Groups of employers paid regular contributions, varying according to the number of employees, to such funds, which then distributed the allowances. The fund estimated the annual cost of family allowances and divided this cost by the total number of employees in the firms concerned, and this cost per head was then used as the basis for calculating the charges to be borne by the separate employers.[20] These funds were developed in two forms: one covering workers in a single occupation and in some cases in embracing the whole country; and the other covering workers of many occupations in a specified region.

Until approximately 1930 the costs of family allowances were easily borne by employers, since the additional financial burden involved frequently lagged behind the rise in profits; and the extension of allowances to meet the demands of labour as prices rose was probably a sound investment for employers—socially as well as economically. The Director of the fund for the Stephanoise Region, for example, claimed that the payment of allowances kept the majority of the family men among the workers outside the "class struggle."[21]

Meantime the state was extending its interest in the scheme, and in March, 1932, an act came into force giving legal recognition to the system of family allowances already in existence, and extending it to cover all industries and occupations. Employers were required to affiliate with regional or occupational funds and state inspectors were appointed to supervise the scheme. Benefits were to be paid to all children under school leaving age, and to the age of 16 years if the child was a student, apprentice or incapacitated. The application of the legislation was made gradual, partly to prevent a sudden increase in the costs of industry, and until 1936 allowances were not compulsory in agriculture.[22]

By 1938 there was deep concern in government circles. The spread of the family allowance system had failed to check the fall in the crude birth rate from 18.7 in 1924 to 14.7 in 1937, and statisticians' estimates made in the nineteen-thirties indicated that without a reversal of the decline, France's population could fall as low as 6.5 millions by the end of the century.[23] The publication

[20] Glass, *op. cit.*, p. 102.
[21] *Ibid*, p. 104.
[22] Allowances were not made for small farmers and their employees till 1938. (I.L. Review, *op. cit.*, p. 198.)
[23] Glass, *op. cit.*, pp. 156 and 184.

of these facts at a time of growing uncertainty in the international sphere helped to stimulate the demand for an overhaul of the whole family allowance system to encourage a higher level of natality. In April, 1939, an amendment came into operation, which stated that the family allowance for an only child was to cease when that child attained the age of five years, and a special allowance (at first 5%, and later—after November, 1940—10% of the average departmental wage) was to be made to mothers to induce them to remain at home, although the grant was also given to wage-earning mothers who assumed complete responsibility for their children.[24] Then in July, 1939, a decree was passed creating the French *Code de la Famille,* which involved a major overhaul of the whole system and aimed at improving the well-being of French families to such an extent that it would make the rearing of large families an economic and social possibility. The new *Code* narrowed the gap between the theory of pro-natalist policies, advocated by such bodies as Bertillon's *Alliance Nationale,* and the traditional practice of the authorities in regard to pro-natalist measures.

The Code of 1939 introduced many measures in addition to family allowances to encourage marriage and the rearing of children. Under the terms of the decree, married couples were entitled to premiums equal to twice the average monthly wage of the Department in which the head of the family resided (but in no case was the premium to be less than 2,000 francs), the full amount being available if the first healthy legitimate child was born within two years of the date of marriage and was of French nationality. Half the premium was paid at marriage, and half six months after the birth, provided the child was still living and was the responsibility of the parents. Farm assistance loans, varying from 5,000 to 20,000 francs, to be used for the purchase of agricultural equipment and stock, household equipment and furniture, or for repairs to or improvement of a dwelling, were made available to young country persons within two months preceding their marriage. Before the loan could be granted, however, certain conditions had to be observed. The man was to be French by birth or to have been naturalized at least five years; to have fulfilled military service or to have been exempted from it; to be between the ages of 21 and 30 with an intended wife between the ages of 18 and 28; to have had agricultural experience; and to declare that he and his wife would spend at least ten consecutive years in an agricultural occupation

[24] *Ibid,* p. 120, and also I.L. Review, *op. cit.,* p. 198.

or as rural artisans in France. The loan was to be repaid over ten years at 4¼ per cent. interest, but the instalments were to be reduced by increasing amounts on the birth of each successive child, and at the birth of the fifth child all remaining instalments were to be cancelled. Those in receipt of these rural marriage loans were to be entitled to only half the full amount of the birth premiums mentioned above.[25]

Family allowances proposed by the Code were of a complicated nature, and only the main principles of them need be observed here. Two special grants should, however, be observed. The mother-in-the-home (*mère au foyer*) benefit instituted in April, 1939, was retained in the Code, but payment was to cease when the first child attained five years of age if no further children were born, unless the mother was wholly responsible for the child. Further, in the case of "single wage" earners (i.e. where there was only one wage earner in the family with income derived from a single source) who were resident in urban areas, provision was made for a grant equal to 10 per cent of the average wage of the department where there was at least one dependent child in the family. In the case of an only child, the grant was to be paid until the child attained five years of age; where additional children were born the grant was to be extended until the youngest attained school-leaving age. These provisions also covered agricultural employers, share-farmers and artisans.[26] A subsequent amendment (March, 1941) decreed that "single" wage earners should receive 20 per cent of the average wage in the case of an only child under 5 years of age and thereafter 10 per cent.[27] In addition, all occupied persons (employees, independent workers, etc., as well as wage earners) were eligible under the Code for family allowances which were payable only in respect of second and later children, the rates being originally 10 per cent of the average departmental wage for second child and 20 per cent for each subsequent child.[28] This was subsequently amended (February, 1941) to 20 per cent for the third child, and 30 per cent for the fourth and each subsequent child.[29] Thus in 1941 a family of three dependent children, in which the father was earning the average wage for his department, was entitled to allowances (including the *mère au foyer* grant and the single wage allowance for the first child) equal to fifty per cent of the father's

[25] Glass, *op. cit.*, pp. 213-215.
[26] *Ibid.*, p. 123.
[27] I.L. Review, *op. cit.*, p. 202.
[28] Glass, *op. cit.*, p. 122.
[29] I.L. Review, *op. cit.*, p. 202.

basic income. In the case of four children the allowances amounted to 80 per cent. The allowances were payable for dependent children to 15 years of age, but extended to 17 years in the case of children who were apprenticed or invalid, and to 20 if they were continuing their studies.[30]

In addition to these financial aids to the family, many of the equalization funds provided benefits in kind, such as domestic help for mothers, country holidays for children, domestic training for nurses, layettes and medical and recreational services. But these were voluntary extensions. The cash aids outlined above were the minimum which had to be granted, and the family allowances applied to *all* occupied persons, employers as well as employees, and industrial as well as professional.

The Code made provision for financing the scheme in such a way as to assist further the parents of families. The cost of allowances provided under the Code and later amendments to wage earners in industry, commerce and liberal professions, was borne by the equalization funds of the undertakings concerned; but a national super-equalization fund was provided to subsidise the allowances paid to those in rural occupations and independent workers, and to cover state employees. To cover the cost of services for which the State is responsible, a reform of the fiscal system accompanied the Code of 1939. In addition to tax rebates for children and a higher rate of tax for unmarried and childless persons than for those with families, every childless unmarried, divorced or widowed person was made liable to the payment of a "family equalization" tax calculated on the taxable income. Persons married for more than two years who remained childless were also made liable to this tax.[31] Thus, it was hoped that the inducement to raise larger families which was provided by the payment of family allowances would be further strengthened by the means used to raise the necessary funds. The total allowances paid in 1943 exceeded 17 million francs of which 45.5 per cent was for regular family allowances, and 53.5 per cent. for "single" wage allowances. The remainder paid the bonuses for first-born children and agricultural allowances. It has been estimated that the cost of allowances at the levels pertaining in 1943 averaged approximately 9 per cent. of the total wage bills; with a range of from 4 to 16 per cent., according to the industry and region.[32] These costs will have been raised considerably since 1943, however, for the Provisional Govern-

[30] *Ibid.*, p. 203.
[31] *Ibid.*, p. 206.
[32] *Ibid.*, p. 207.

ment of France made considerable increases between October, 1944, and March, 1945, in allowances of all types.[33]

These positive pro-natalist measures, which are based on traditional French practice, but which are now consciously designed as a population policy, have been accompanied by other measures to avoid unnecessary wastage of life. Long terms of imprisonment (up to 10 years) and heavy fines may be imposed for induced abortion; abortifacients may not be displayed or sold without the presentation of a medical prescription; a clause of the Code stipulates that in every school in France the syllabus must include a certain minimum instruction regarding population problems; steps are being taking to reduce infant mortality, to protect illegitimate children and to inspect maternity homes and clinics.

By such measures, then, is France attempting to prevent the population decline of which demographers have long been warning the nation. It is too soon yet to estimate the effectiveness of the French family allowances from the pro-natalist point of view. It is very doubtful, however, if the birth rate had been affected in any appreciable measure before 1939 by the family allowance system. Glass concludes[34] that for both France and Belgium (where similar measures have been adopted) it may well be the case that population measures prevented an even more rapid fall in fertility than that which occurred between the mid twenties and late thirties, but that it is evident that they were not influential enough to cause a rise in fertility, or even to stabilize it at the already low level of the earlier period. The effect of the substantial increases in benefits since 1939 must await analysis, but spectacular results are not to be expected, for the whole French system has serious weaknesses as a pro-natalist policy. It places the main emphasis upon cash benefits and in some respects (e.g. the marriage allowances, to rural workers and the *mère au foyer* grant) comes perilously close to a system of state bribery. Moreover, considerable as the benefits are, it is questionable whether they are large enough to persuade parents that their well-being will be improved more by increasing the size of the family than by spending a smaller income amongst fewer people. As a pro-natalist policy the whole system is not dissimilar to that of Augustan Rome, in so far as it aims at increasing the birth rate by monetary inducements and by tax penalties imposed upon the infertile. Further it attempts to stamp out abortion and

[33] *Ibid.*, p. 203.

[34] Glass, *op. cit.*, p. 202. Glass gives a thorough analysis of the available evidence on this question (pp. 178-202).

at the same time to restrict the spread of birth control information. Married couples are—if the laws can be enforced—to be denied the right of practising family limitation by other means than those which fall outside the scope of legal prohibition.

In general it may be said that the French policy over-emphasizes the cash bonus aspect without paying sufficient attention to ecological factors. It makes no provision for the supply of adequate homes for large families or for remodelling the metropolitan environment in the interests of the family. Yet the whole experiment is of considerable interest as an attempt to establish a pro-natalist policy within the framework of a political democracy, and this is what clearly separates contemporary French planning from earlier measures tried in Nazi Germany and Fascist Italy.

Of the Italian and German policies it is not intended to write here at length.[35] Those policies were designed to serve political ends which are repugnant to Western democracies. They were avowedly expansionist in aim, and although in some aspects they revealed a deeper understanding than the French policy of the importance of ecological factors, they attempted to deny the individual the right to choose the size of his family. Individuals were not only to be induced to have children, but so far as it lay within the power of the state, they were to be compelled to do so if they conformed to the Nazi racial requirements, and to be forbidden to do so if they did not.

In Italy repressive measures were prominent in the pro-natalist policy developed by Mussolini. Severe penalties were imposed for abortion, attempts were made to prevent the sale of contraceptive appliances, preference was given in employment to fathers of large families, bachelor taxes were imposed to encourage marriage, and marriage loans were granted, the debt to the state thus incurred being cancelled on the birth of the fourth child. In addition—and more constructive—grants were made to help to cover medical costs during and after confinement, and to cover the time lost to married women in employment owing to the birth of a child; and family allowances were increased in amount and coverage until they were available to most wage-earners. Birth premiums were also instituted in 1939, the amount increasing according to the number of children

[35] Comprehensive analysis of the policies of these two countries is to be found in Glass, *op. cit.*, Chs. V and VI. A useful summary is also available in W. S. Thompson, *op. cit.*, Chs. XXV and XXVI. Belgium is not treated, either, in the present book, although for reasons different than in the cases of Italy and Germany. The mechanics of the policy of Belgium are essentially similar to those of France. For a treatment of Belgium see also Glass, Chs. III and IV.

in the family. Attempts were also made to prevent the drift to the cities, where the birth rate was lowest, by the reclamation of swamps and other waste lands, thus increasing the area available for agriculture. But these measures, and the exhortations of the Dictator to the people to breed in the interests of imperial Italy, as well as the state honours bestowed upon mothers of large families, produced no apparent effect upon the Italian birth rate. The birth rate did rise after approximately 1936 (22.4 in 1936 and 23.6 in 1938),[36] which coincided with the intensification of the Fascist pro-natalist campaign, but this increase was probably due to a higher rate of marriages, which in turn may have been stimulated by the return of soldiers from the Abyssinian War. By 1939 a downward trend in the Italian birth rate was again apparent.[37]

The German measures instituted after 1933 were more thorough and probably more effective than those of Italy. In many aspects the techniques were broadly similar. Stringent measures were taken to prevent abortion, other than for eugenic or therapeutic purposes. No specific decree was passed prohibiting contraception, but birth control clinics were closed down and the advertisement and sale of contraceptives were virtually forbidden. Marriage and procreation were encouraged. Marriage loans up to 1,000 R.M. were payable to those of the working and lower middle classes provided they were of Aryan stock and were of sound health, and provided the wife had been in employment for nine months before marriage and ceased employment after marriage. This measure was designed to reduce unemployment as well as to stimulate the birth rate, but in 1937 when there was an urgent demand for increased labour for re-armament, retirement from employment by the wife was not a bar to the grant of a loan. The loan was to be repaid over eight years and was interest free, but one quarter was cancelled on the birth of each child. By an executive order of 1935 special grants were also made to families which satisfied racial and eugenic requirements and which had four or more dependent children. These grants amounted to 100 R.M. per child, with a maximum grant of 1,000 R.M. Up to 400 R.M. of this grant could be used for the purchase of a small settlement as an encouragement to people to own small rural or semi-rural properties. Special grants were also made to enable peasants to own and stock their farms, thus encouraging them to remain in rural areas.

Other measures to encourage procreation included practically

[36] W. S. Thompson, *op. cit.*, p. 417.
[37] *Ibid*, p. 418.

free medical attendance for mothers during pregnancy and at time of confinement, and payment of special expenses incident to the birth of a child.[38] Further, infertility on the part of a married woman was treated after 1936 as an illness if it could be cured by medical treatment, and if its cure were considered to be in the interests of the community. In 1938 it was decreed that if either party to a marriage became prematurely infertile or persistently refused to have children for a valid reason, the other partner could petition for the dissolution of that marriage.[39]

The grants outlined above were given once only, but regular family allowances were also paid. Here the Nazis expanded a measure which had already been in operation in Germany since 1920 on lines similar to the French equalization funds. Equalization funds were extended and subsidized by the state, the allowances which were payable varying according to the nature of the occupation and the amount paid to the fund. For example, doctors who earned at least 1,000 R.M. a year from their panel practice were entitled to an allowance of 50 R.M. a month for each child after the second in return for a two per cent. levy on their earnings. Panel dentists earning 500 R.M. a year were entitled to allowances of 30 R.M. a month for each dependent child after the second. In 1936 government allowances were also instituted to cover low income families with five or more children under the age of sixteen. The scope of these allowanaces was greatly extended in 1938; they were made available to families with an income up to 8,000 R.M. per year, and the monthly grants of 10 R.M. per child were extended from the fifth to the third child. Under the new scheme a family of seven children on the upper income limit would add 12 per cent. to the basic income, and for lower income groups the proportionate increase in income would, of course, be higher.[40]

Besides these direct monetary grants educational assistance was provided to enable children of families with four or more children to attend secondary and technical schools, and travel concessions and cheap houses were to be provided for large families. In this regard the Germans showed a greater appreciation than the French of the causes of declining fertility. In housing, however, the practice lagged behind the intent. Provision was made for more extensive and cheaper methods of obtaining loans for building and for lowering rents, but the plans for extensive communal settlements and

[38] *Ibid*, p. 432.
[39] Glass, *op. cit.*, pp. 302-303.
[40] *Ibid.*, p. 296.

suburban building for families did not keep up with requirements.[41] To these benefits must also be added the graduation of income tax according to the number and dependency of children, and the graduated exemption of property and inheritance from taxation as the size of the family increased. Propagandist measures also played their part, such as state honours in the form of medals for mothers of more than four children (first given in 1939),[42] campaigns to popularize large families through the central "Bureau for Explaining Population Policies" and through women's organizations,[43] and the acceptance of godparenthood by some provincial towns.[44]

Between 1933 and the outbreak of war in 1939, the German birth rate rose by about one-third, from 14.7 to 20.3 per 1,000.[45] The precise extent to which this rise was due to improved economic conditions on the one hand and pro-natalist measures on the other is difficult to determine. A similar, though less marked increase in births was apparent in almost every Western country after 1933, and was due primarily to the increased marriage rates and the first and second births which followed from them. A portion of the rise in Germany was due to later births. It has been estimated that about three-fifths of the increase in German births between 1933 and 1939 would have occurred in absence of pro-natalist measures, assuming that the relation between employment and births found in Europe outside Germany applied to Germany.[46] This would indicate a greater measure of success for the German policy than for that of either Italy or France; but the end for which that policy was designed, as well as many of its techniques (e.g. in regard to racial and eugenic matters), condemns it as impracticable for any other system than a totalitarian regime. Moreover, historical evidence is against the conclusion that any policy based on repressive measures can succeed in the long run. The increase in births later than the third was probably due to the suppression of abortion and contraceptives,[47] and with the passage of time ways to circumvent the

41 *Ibid.*, p. 302.
42 *Ibid.*, p. 303.
43 *Ibid.*, p. 286.
44 *Ibid.*, pp. 303-304.
45 F. W. Notestein et al., *op. cit.*, p. 64.
46 K. Dudley, "The Relation of Employment Levels to Births in Germany," in *The Milbank Memorial Fund Quarterly*, v. 20, No. 2 (1942), pp. 126-138.
47 C. Kirkpatrick (*Woman in Nazi Germany*, London, 1939, pp. 149-150) states that "one informant told of a small village in which a surprising number of peasant women, approaching middle age, shamefacedly and perhaps a little indignantly produced children at a time when prior children were well grown. The explanation given was that they were no longer able to obtain the usual abortion on which they had come to rely." (Quoted in Glass, *op. cit.*, p. 286, n. 4.)

regulations would have been found unless other factors had been operating to increase the desire of parents to have larger families. Marriage loans, family allowances and the propaganda regarding the "psychic rebirth" of the nation may have been establishing an environment favourable to larger families, but the destruction of the whole edifice in the war of 1939-45 has rendered it impossible to assess the success which the Nazi population experiment might have had.

Another development of considerable interest in contemporary Europe is the institution of pro-natalist measures in the Soviet Union, an area of high birth rates and rapid population increase. Reference has already been made (Chapter I) to some of the measures taken before the war of 1939-45 to increase natality, such as the prevention of abortion for other than therapeutic or eugenic reasons. These were accompanied in 1936 by: an increase of the social insurance allocated to employed mothers for equipment for infants; the extension of maternity leave for working mothers to a total period of 16 weeks (eight before and eight after confinement); annual allowances for mothers of large families amounting to 2,000 roubles for a period of five years for each child from the sixth to the tenth, inclusive, and thereafter, in the case of the eleventh and each subsequent child, a single grant of 5,000 roubles at birth and 3,000 roubles annually for the next four years. These measures were followed by plans to extend the network of maternity homes in city and industrial areas, and also among collective farms. Provision was also made for doubling the accommodation of nurseries in two and a half years, and of trebling the kindergarten facilities in cities, as well as of extending them in rural areas. Finally, the laws relating to marriage and the family were revised by way of "combating light-mindedness toward family and family obligations," and divorce was made more difficult to obtain, and if obtained was recorded by an entry on the passports of the divorcees.[48] These measures appear to have had at least an immediate effect upon abortions and divorces. Abortions performed on medical certification decreased by over 90 per cent. between 1936 and 1937.[49] To what extent the increase in the Soviet birth rate after 1936 was directly the result of these measures cannot be ascertained, but the decrease in abortion was probably one important factor.

This trend towards a positive pro-natalist policy was given a

[48] F. Lorimer, *The Population of the Soviet Union: History and Prospects*, Geneva, League of Nations, 1946, pp. 128-129.
[49] *Ibid.*, p. 130.

further emphasis in an edict of the Supreme Soviet of July 8, 1944, which extended maternity and child allowances.[50] The allowances now payable are as follows:

ALLOWANCES AND AWARDS TO MOTHERS OF LARGE FAMILIES
(IN ROUBLES)

On behalf of each child of specified order	Single grant paid at birth	Annual allowance payable monthly from first to fifth birthday inclusive, or until payment for a child of higher order comes into effect	Honours when specified child reaches the age of one year
Third	400	—	——
Fourth	1,300	960	——
Fifth	1,700	1,440	Motherhood Medal, 2nd class
Sixth	2,000	1,680	Motherhood Medal, 1st class
Seventh	2,500	2,400	Order of Glory of Motherhood, 3rd class
Eighth	2,500	2,400	Order of Glory of Motherhood, 2nd class
Ninth	3,500	3,000	Order of Glory of Motherhood, 1st class
Tenth	3,500	3,000	Order of Mother Heroine (Gold Star), with Scroll from Presidium of the Supreme Soviet
Eleventh and each subsequent child	5,000	3,600	

Special grants are made to unmarried mothers in respect of first (1,200 rs.), second (1,800 rs.), and third (2,400 rs.) children until they reach the age of twelve years. These special grants are continued even if the woman later marries. Unmarried mothers with three or more children are also entitled to the common allowances tabulated above. Widows receive allowances equal to, but no larger than, those paid to women with husbands living. Besides offering these monetary payments and honours, the Government allocated a large sum from the budget of 1944 for the extension of nursery schools, and it was estimated in that year that Soviet nursery schools would care for some 1,800,000 children. Further regulations were also introduced making divorce even more difficult

[50] *Ibid.*, pp. 179-180. See also, H. A. Freund, *Russia from A to Z*, Sydney, 1945, pp. 3-4.

to obtain than before. Taxation was also heavily graduated in favour of those with three and more children.

This legislation suggests a determined Soviet attempt to replace the heavy casualties arising from war, as well as official dissatisfaction with trends in the birth rate. The most satisfactory aspect of the whole policy is the careful attention being given to mothers and children, through maternity care, nurseries, kindergartens, etc., rather than the cash bonuses and honours. The bonuses themselves are liberal. The allowance for the fifth child represents a subsidy equal to approximately 36 per cent. of the estimated annual average wage (4,020 rs.) of workers in the U.S.S.R. in 1940. But the discontinuance of the allowance when the child reaches the fifth birthday has no clear relation to the economic needs of the family, and unless later amendments eliminate this deficiency the effectiveness of Soviet policy may be limited. Also, contraceptive facilities are still available, at least in cities,[51] and this may yet prove too strong for the Soviet planners. Nevertheless the results of the Russian experiment must be awaited with interest during the next decade.

One further population policy—that of Sweden—merits scrutiny here, because it has been worked out within the framework of a political democracy, and is entirely free from the compulsion and repression that forms part of all the policies so far considered. Further, it rejects the principle of cash bonuses and is based upon the assumption that the birth rate can only be increased by the creation of an environment in which people will voluntarily increase the size of the family. It owes nothing to Roman legislation; it lacks the utopianism of Plato's ideas; and it emphasizes the importance of ecological factors in population change. The Swedish policy is also the result of the closest liaison yet established between demographer (as a scientist and not as a propagandist) and government. The whole policy is based upon seventeen reports, embodying a thorough analysis of almost every aspect of the Swedish demographic situation, by the Royal Commission which was established in the spring of 1935.

A detailed exposition of the Swedish policy is unnecessary here, for it has already been fully explained in published works.[52]

51 Lorimer, *op. cit.*, p. 130.

52 Alva Myrdal, *Nation and Family*, *op. cit.*, gives a thorough exposition of the aims and techniques of the Swedish policy. Other shorter but important studies of Sweden are: D. V. Glass, *op. cit.*, Ch. VII; W. S. Thompson, *op. cit.*, pp. 418-423; and A. Myrdal, "A Programme for Family Security in Sweden," *International Labour Review*, XXIX, No. 6 (1939), pp. 723-763. Gunnar Myrdal, *op. cit.*, especially Ch. VII, also contains much valuable interpretive material.

Rather let us examine some of the assumptions upon which the Swedish experiment is based, and compare it with the policies we have already examined.

First, the Swedish policy does not aim at population increase, but at the establishment of a fertility sufficient to ensure the survival of the nation. To attempt to establish a fertility higher than replacement level, the Swedes consider, is to be impractical and to endanger the quality of the population.[53] The crucial factors of population change, to the Swedes, are direction and rate of change rather than any optimal size, and they aim merely at preventing the trend toward an ever smaller nation that would be threatened with self-liquidation. Even this goal implies an increase of twenty-five per cent. in the reproduction rate which obtained in 1935. Second, any policy to achieve this goal must protect the right of individuals to the voluntary control of the size of the family. This does not imply merely a policy of *laissez-aller,* but rather than encourage larger families by bribes and penalties, the State should change the whole social and economic environment, in order that parents should be able to have as many or as few children as they voluntarily desire. But unwanted children are not to be encouraged, so that all parents must have access to knowledge of birth control. Such knowledge is also essential to the preservation of quality. Third, the population question cannot be considered in terms of economic motives alone: non-material factors must also be taken into consideration, so that social attitudes and education must also be considered in a pro-natalist policy.

Such, briefly, are the aims of the Swedish policy. The programme to give effect to those aims has been one of evolution, legislation being introduced in the Rikstag as the Population Commission proceeded with its investigation of various problems.[54] The first step proposed by the Commission was a special population census in 1935-36, between the regular census years, 1930 and 1940; attention was then turned to such questions as the status of married women in employment; housing and taxation in relation to family size; and financial aid to women before, during and after childbirth. On most of these questions legislation was then introduced embodying the recommendations made by the Commission as the result of its investigation. Then in 1936-37 the Commission investigated the whole field of legislation in relation to contraception, abortion, and sex-education, and in 1938 the Rikstag again gave legislative effect to many of the recommendations. Further investigations

[53] Alva Myrdal, *op. cit.*, pp. 104-105; and G. Myrdal, *op. cit.*, p. 175.
[54] Alva Myrdal, *op. cit.*, pp. 164-173.

followed in 1938 on questions of rural depopulation, differential fertility, and on the ethical implications of the population problem, all of which were then taken up by the Rikstag. In this way the Swedes have gradually built up a population programme, based on expert and unhurried investigation, and designed to meet the contemporary needs of the nation. At all times public opinion has been carefully considered, and the legislative acts have been designed to go as far as public opinion will allow, but never to coerce individuals into accepting a given line of action.

In this regard those planning the Swedish measures have had a comparatively easy task. They have been working among a homogeneous population, in which there is a lack of strong religious or moral prejudice to such questions as contraception. Birth control had been widely practised for many years before the Commission began its work. Moreover, the high standard of education in the community helped the Commission to gather informed criticism regarding its proposals.

By 1940 considerable progress had been made with the Swedish policy. First, to encourage an understanding of the functions of the family in society, the Commission recommended amendments to the educational curricula. Before the Commission prepared its Report on the Sexual Question in 1936, the General Board of Education had realized the necessity for including elementary human biology—e.g., a factual treatment of reproduction, conception, pregnancy, the dependency of the child upon the mother before and after birth, heredity, etc.—in the curriculum of children over the age of twelve years. The Commission went further and recommended that those under twelve years of age should be given answers to their questions about procreation "naturally, truthfully, unsentimentally and in a matter of fact way," and that those in Secondary Schools should be taught about the dangers of venereal disease and methods of protection against it. They recommended, too, that the older children should be given some general information regarding birth control, as a normal and natural practice in marriage, desirable on eugenic, medical, health and economic grounds.[55] At the same time, the Commission added, improper use of birth control should be discouraged by instruction regarding the biological and sociological functions of the family, especially through history and literature, and through courses in home economics and child care, the aim being to integrate the family with the wider life of the community and nation. This teaching

[55] *Ibid.*, pp. 178-180.

should not be confined to school children, but should be continued at an advanced stage for adults.[56] By 1940 these recommendations of the Commission concerning family education had not been fully put into effect. Teacher courses at public expense in sex instruction were commenced in 1936, but the Rikstag was reluctant to go as far as the Commission desired. Nevertheless it was widely recognised that education must play an important part in laying the basis for a population policy.

The Commission also directed attention to contraception, abortion and sterilization. Birth control was advocated as a positive blessing within marriage on health, economic and eugenic grounds. Where inheritable defects were apparent, it was considered "the moral duty of a couple to practise prevention of conception for their own sake, for the sake of society and for the sake of children,"[57] but otherwise birth control practised to ensure complete childlessness was opposed. The Commission also considered that birth control outside marriage, although to be discouraged, was more desirable than lack of such control. Thus ways had to be found to make contraceptive practices available to the people. In 1938 the laws restricting the exhibition and sale of contraceptives were repealed, but a regulation was issued making it necessary for private distributors to obtain permits. Since 1938, therefore, the provision of contraceptives has been legitimate.[58] The next step was to encourage the proper use of contraceptives. This was attempted by promoting public lectures and discussion courses among adult educational groups on birth control as a factor in family life, and by developing facilities for personal consultation on birth control and other family matters. The aim was to ensure that at least the simpler methods of birth control, the condom and coitus interruptus, be made known to everybody even before sexual intercourse occurred. The Commission aimed at equipping the whole system of organized public health, from doctors to midwives and maternity and child clinics, to give this information, and considerable progress has been made in this direction.[59]

The real object of the Swedes in making birth control knowledge universal is to limit the need for recourse to less desirable practices. Abortion on therapeutic, eugenic and ethical grounds is now permitted by a law which embodied the recommendations of a

[56] *Ibid.*, pp. 181-186.
[57] *Ibid.*, p. 191, quoted from The Report on the Sexual Question, 1936.
[58] *Ibid.*, pp. 198-199.
[59] *Ibid.*, pp. 190-205.

special committee of the Commission,[60] and under a law of 1934 provision was also made for the compulsory sterilization of some insane and imbecile persons.[61] But while legal provision is made for abortion and sterilization to prevent socially undesirable parenthood, birth control through contraception is considered to be the main device of population control. And education is the medium by which it is hoped to create a set of values which will help to encourage propagation sufficient for survival. The whole programme in regard to birth control and education accepts the final victory of the neo-Malthusian movement, which according to Mrs. Myrdal "has served its time and will become history."[62]

But the Swedes do not consider that education and birth control alone will achieve a higher fertility without reducing the economic burden of children upon individual parents. In many regards their measures here are similar to those practised in other countries. State loans for homemaking were introduced in 1937 to help young couples to avoid the dangers of the hire-purchase system, and to enable young people to marry when they wished to do so, instead of being forced to delay marriage because of attenuating economic circumstances. Loans up to 1,000 crs. are available to betrothed or newly married couples, but they must be repaid over five years.[63] No part of the loan is cancelled on the birth of children, as is the case in the French rural loans, and was so in Germany. There is no attempt to bribe young couples into marriage and to encourage them to reduce their mortgage by the birth of successive children. Nor is woman to be driven back to the home, for steps are being taken to ensure that the married woman may be permitted to remain in employment even though children are born to her.

By a legislative act which went into operation in January, 1938, mothers in households with a taxable annual income of less than 3,000 crs. are entitled to maternity bonuses of 75 crs. covering personal expenses connected with childbirth. This bonus, which is estimated to cover ninety per cent. of mothers, is in addition to free delivery care and subsidized hospital fees. A baby born in its own home with a midwife attending costs the parents nothing; if born

[60] *Ibid.*, pp. 205-212.

[61] *Ibid.*, p. 213. Consent is not necessary for sterilization; but direct refusal prevents it. Under no circumstances can force be used. The law is clearly applicable with regard to the feebleminded, but in the cases of the mentally diseased (e.g., of the schizophrenic type) where there is still scientific doubt about the importance of hereditary factors, the law cannot readily be used.

[62] *Ibid.*, p. 217.

[63] *Ibid.*, p. 229. The rate of interest was fixed at 3½ per cent., but in 1940 this was raised to 4¼ per cent.

in a hospital ward the cost to parents is one cr. per day for the first 10 days, and thereafter approximately 2 crs. For 12 crs., therefore, mothers should receive treatment of a standard equal to that demanded by the highest income groups, with the best specialists attending and costing 200-275 crs.[64] In addition to the above, special grants are provided as loans or gifts to necessitous mothers.[65] To these must also be added grants for the building, and maintenance of maternity hospitals on condition that no fees are charged, beyond the small sum (1 cr. per day) representing the cost of food saved by the patient's absence from home; improved training of doctors and midwives—the latter of whom still play an important rôle in Sweden—in child care; steps to establish a complete network of mothers' and infants' health centres; and measures to ensure adequate health supervision of children until the termination of their school career through a network of clinics and school medical and dental services.[66]

Particularly interesting is the special provision made for women in employment. An Act of 1939 stated that an employer could not give notice of dismissal on account of engagement, marriage, pregnancy or child-bearing, nor on such accounts decrease the salary and other advantages attached to the position. Any woman employee now has the right voluntarily to abstain from work for 12 weeks during pregnancy without being subject to dismissal, although she will usually be subject to loss of salary. In its first report the Commission recommended that the government should show itself a model employer by paying the major part of civil service salaries during the three months' leave for child-bearing, and the Rikstag enacted such a law which applied to both married and unmarried mothers. But the wider proposal that the loss of income from work on account of child-bearing be carried on the nation's cost account for children, by the provision of a daily benefit of 3 crs. out of national funds, was defeated.[67] This step, Alva Myrdal considers, must eventually be taken, for the forced celibacy or sterility among wage-earning women is a sign of society's incapacity to adjust itself to modern conditions.[68]

[64] *Ibid.*, pp. 320-323.
[65] *Ibid.*, pp. 324-326.
[66] *Ibid.*, Ch. XVI.
[67] *Ibid.*, p. 415-416.
[68] *Ibid.*, p. 121. Cf. the above recommendations of the Commission with Lord Beveridge's proposal for Britain that, in addition to a maternity grant, married women who are also gainfully occupied should receive a maternity benefit of 36/- a week for 13 weeks during the time of pregnancy and child birth, in order to "make it easy and attractive for women to give up gainful occupation at time of maternity." (Report on Social Insurance, Cmd. 6404, 1942, p. 340, para. 341.)

The whole purpose of these maternity and child services is to pass on to the community as a whole many of the economic costs which have traditionally been the responsibility of individual parents, without however encouraging complete dependence on public aid (e.g., the food cost in hospitals; the small fee payable by parents, but reduced according to family size, in the case of children's dental services; and community organization of crèches). This aim is carried further in other services that are now being provided, such as increased income tax exemptions in respect of children, free meals for school children, controlled prices of essential children's food and clothing, the extension of state aid to ensure equality of educational opportunity and adequate recreational and cultural facilities for mothers and children.[69]

A further important step has been the replanning of home-building facilities in the interests of the family. The time was more than ripe, when the Commission was appointed, for a drastic overhaul of the housing question, because although large agglomerations of slums in the English—or even Australian—sense have been lacking, the general standard of housing in Sweden has not been high. In 1933 it was estimated that in urban areas, excluding Stockholm, about 30 per cent. of children under 15 years of age were living in overcrowded conditions with more than two adult units per room (children under 15 being counted as half an adult unit, and kitchens, halls and rooms smaller than approximately 97 square feet being reckoned as halves of a room unit).[70] Housing conditions in rural areas and in crowded sections of large towns were even worse. To cope with the problem the Rikstag appropriated large sums in 1933, and again in 1935, for granting loans to contractors who wished to build homes in urban areas and to repair existing dwellings. A further sum was set aside in 1936 for repair work only. Similar funds were also made available for rural areas, up to a maximum of approximately 70 per cent. of building costs being loaned.[71] Direct attention was also given to the position of a family in 1935 with a project for rehousing, under a communal building system, 20,000 families with three and more dependent children living in overcrowded conditions. Grants were given by the State to local authorities who controlled the houses, the construction of which could be undertaken by building societies or by individual contractors. Special attention had to be given to access to parks and playgrounds, the provision of communal laundries,

[69] *Ibid.* A detailed treatment of these plans is given in Chs. XV, XX and XXI.
[70] Glass, *op. cit.*, pp. 331-332.
[71] *Ibid.*, pp. 336-337.

play centres and crèches. In addition the State now makes grants to the communal authorities for the purpose of reducing the rent charged to large families. At first these measures applied primarily to urban areas, but in 1938 they were extended to assist the construction of family homes in rural areas. Further, the limit of rent rebates was increased, and by 1940 the rebate amounted to 30 per cent. for a family of three children, 40 per cent. for four, 50 per cent. for five, 60 per cent. for six and seven, and 70 per cent. for families of eight and more children.[72] Generous as the scheme may appear on paper, it was not being widely used by 1940, by which date rent rebates had been granted in some 5,100 dwellings, 4,700 of which were in blocks of flats.[73] The intention is, however, that the scheme will develop until houses for rental are in the hands of communities of citizens and organized on a co-operative basis to eliminate profit making from home ownership.

These, then, in summary, are some of the main provisions in Sweden which may be said to be directly associated with pro-natalist aims, and they indicate that the population policy is being integrated with social policy at large, and that environmental factors are being closely considered. The assumptions upon which the whole scheme is based are vastly different from those of Germany, or even of France. Not the least interesting feature is the attempt to provide benefits in kind as well as in cash. The Swedes have not introduced cash family allowances, which they consider less effective and more expensive than benefits in kind for children (e.g., through medical and educational services). The absence of cash inducements to procreation has caused the Swedish policy to be rather trenchantly criticised by some observers. W. S. Thompson[74] considers that until the economic provisions are put fully into effect, and until they are accompanied by sound and efficient propaganda calculated to change social values, they are more likely to result merely in a better level of family living than in any increase in the size of families.

It is too early, however, to offer any evaluation of the effectiveness of the Swedish plans, which, in many aspects, are only in the blue-print stage. Their successful completion will require years of sustained effort and public interest, and the Swedish leaders realize that this will present a formidable task, in view of the difficulty of keeping public interest in the population question alive; but they are consistently refusing to take any step not in

[72] A. Myrdal, *op. cit.*, pp. 261-267.
[73] Glass, *op. cit.*, p. 338.
[74] *op. cit.*, p. 422.

harmony with a democratic society. Nor can their pro-natalist plans be considered without relation to their whole policy of social services, for almost as important as direct measures to assist procreation are their plans to assure a steady level of employment and income for young parents, and to remove the direct costs to parents of the care of the aged by an adequate system of housing, pensions and superannuation.[75] In short, the Swedish pro-natalist measures may be considered as part of a comprehensive social service policy which is based upon the needs of the family. The fundamental difference between the Swedish policy and the comprehensive plans already in operation in New Zealand, and being prepared in Britain and Australia, is the end which the former is designed to serve. The Swedish policy is being planned in a conscious effort to ensure the biological survival of the nation; those in the other countries are being planned to meet recognised social and economic needs without specific attention to the question of fertility. The end result of the various policies may yet be similar, and because of their comprehensiveness and their attention to the whole social and economic environment they may in the long run be more effective than the propagandist measures tried in Germany, or the cash-benefit system of France.

The techniques of a pro-natalist policy must, of course, vary to meet the needs of each country, but the Swedes have at least provided the soundest assumptions on which to base such a policy, and they have perhaps revealed the general form which such a policy must take if it is not to infringe fundamental principles of democracy. By increasing the responsibility of the community as a whole for both the young and the aged, they hope to provide an environment in which parents may plan their families rationally without fear of the loss of either economic or social status.

[75] It is not intended here to go into the details of their wider social service plans not directly related to the birth and rearing of children. These aspects are fully treated in A. Myrdal, *op. cit.*, Chs. VIII, IX and XIX.

CHAPTER XIII

THE PRINCIPLES OF A PRO-NATALIST POLICY FOR AUSTRALIA

In the previous chapter we summarized the main techniques of the population policies of five countries of the modern world: France, Italy, Germany, the U.S.S.R. and Sweden. With the exception of Sweden, these policies have been, or are, avowedly expansionist in aim. Also with the exceptions of France and Sweden, they have been designed within the framework of political systems not acceptable to Australia. But even so, all the policies have certain features which are not only unobjectionable, but desirable from the point of view of general social policy rather than of survival. Among these are measures common to all policies to ensure that no woman lacks the opportunity of receiving the best assistance available during child-birth, and to provide adequate health, medical and educational facilities for infants and children, irrespective of the means or social status of the parents. These policies merit scrutiny because they provide examples of what should be avoided, and also of what, *mutatis mutandis,* may be suitable for Australian conditions. They are all illustrations of attempts to apply modern knowledge in the economic and social spheres to the solution of a problem which is broadly similar to that facing Australia to-day, and as we have already pointed out, no aspect of Australia's population can be adequately considered in isolation, because it is not exceptional. It is essentially a microcosm. Moreover, we should be humble enough to acknowledge that in the field of population policy Australia is not a pioneer; and just as the other countries may have profited by our pioneering work in the fields of the franchise and industrial arbitration, so we are now in a position to profit by the experience of others in the field of population policies.

In discussing this subject of a pro-natalist policy for Australia we will endeavour to find the answers to two questions. First, what should be the aim of a population policy? and second, what form should such a policy take? The answers to these questions

must be sought within the framework of Australian political and social institutions. They must also bear some relationship to the nature of fertility decline in this country, and take into account the services already supplied which may have either a stimulating or depressive effect upon the level of fertility.

First, then, what must be the aim of a pro-natalist policy for Australia? The thesis maintained in this book has been that the continued rapid population growth among the white peoples is neither practicable nor desirable. It has been shown that the demographic problem facing the white world to-day is to find a new vital balance, and to demonstrate that efficient human reproduction by means of low birth and death rates is compatible with survival. To diverge from this aim, and to encourage expansionist population policies, is to increase the risk of an international competition in buying babies at bargain prices. Apart altogether as to whether such policies can ultimately succeed, it is in Australia's long-term interests to see that they are not attempted, particularly as she, of all the white countries, is closest geographically to the areas likely to win any race for numerical increase.

Thus, from the point of view of international relations, an expansionist population policy is to be avoided. The case for the rejection of the expansionist views can also be supported on other grounds. The experiment of Nazi Germany suggests that in the short term fertility can be raised quickly, if the State is prepared to adopt methods of compulsion and repression; but because such a policy can only be achieved by methods which deny the individual freedom of choice in the matter of family size, they cannot be considered acceptable to the Australian community. It is accepted here as axiomatic that the family must remain the reproductive unit of our community, and that the task of the State is to do no more than remove those social and economic disabilities which may prevent parents from having as many, or as few, children as they voluntarily desire, and to take steps to ensure that every child born has opportunities for development, both physically and mentally, to the fullest extent possible within our economic and social environment. Any population policy which attempts to achieve quantity at the expense of quality is to be rejected as inconsistent with the aims of a democratic community.

Thus we are driven to the conclusion that the fundamental aim of a population policy must be an improvement in quality, and a social redirection that will enable the rising generation to breed to the limit of their volition, and not compel them to breed to the

limit of their capacity. History proves the foolishness of the latter course, and it is submitted that our falling mortality rates and the lag of our social organization behind our technical development during the past half-century have been major causes preventing us, in Western countries, from breeding to the limit of our desire. That same technical development has provided individual parents with the means of limiting families to a size which they consider compatible with their individual welfare within existing social and economc organization. Those means were neither so widespread nor so efficient in either Greece or Rome, yet the people ceased to breed. It is desirable that those means should remain available to all, unless we prefer the barbarous methods of abortion, infanticide and high infant mortality, and that our energies be concentrated upon the modernising of that section of our social structure that concerns the bearing and nurture of children, and this includes a drastic revision of our educational programme.

We, who form part of what has come to be known as western civilization, are witnessing a demographic revolution, which can only be explained by a century of economic and technical advance. In our alarm at the biological repercussions of the Western peoples to these changes, let us not leap too far ahead, and by repressive measures aim at a vast increase in quantity to offset the frightening possibilities of the numerical expansion of the eastern world. The basis has first to be laid, and this involves a complete social redirection, which may for a time even lower our total fertility. The rural family may decrease in size, and the poor man's family may grow smaller in response to improved economic standards and cultural attainment; but at the same time we may be breaking down those barriers that have been causing an increasing number of parents to refrain from burdening themselves with a third or fourth child.

Thus, if the prevention of population decline rather than the encouragement of rapid population increase is to be the aim of a pro-natalist policy for Australia, what form should such a policy take? Let us begin with the matter of education and public opinion.

In this matter the Swedes have much to teach us. Exhortation directed at the adult community can achieve little, for adults will not readily change their habits of mind. If a new attitude towards the family and procreation is to be encouraged, it must emerge from the generation now about to enter, or in, the schools. The task of determining the type of instruction which should be given

in schools was much easier in Sweden than it can be in Australia. There was little prejudice in the former country against sex education in schools, or even against some instruction regarding the economic and social purpose of birth control. In Australia, any common policy in regard to these questions must remain virtually impossible while a considerable proportion of the juvenile population is educated in schools controlled by churches which have not a common attitude to them. The Roman Catholic attitude is, of course, clear, but many other denominations have not yet taken a stand for or against birth control. Moreover, although Australia may be vaguely termed a "Christian" country, it is manifest that a sufficiently small proportion of Australians are influenced by the faith that they may nominally profess for religious instruction concerning birth control and allied subjects to have any general effect.

Despite these difficulties, however, some steps may be taken which would not meet with serious opposition on religious grounds. At present the teaching of history and allied subjects does little to give the school child any understanding of the function of the family in society. The child's home and the school are largely divorced one from the other. Lewis Mumford[1] has suggested that the school must become the nodal point of our urban social organization, and that it must perform largely the functions that were attributed to the church in the medieval city. So far as possible, he argues, the size of a community unit should be determined by the walking distance of a child from the farthest house to the nearest school. This concept implies, of course, a complete overhaul of the physical organization of the modern city, which may yet be the long-term price Western societies will have to pay for their survival; but without waiting for that, much can be done to increase the awareness in the child's mind of the existence of a community in which he and his family form a part. To the child under the age of fourteen, the teaching of "British" or "Australian" history along the traditional lines of kings, governors, political institutions and foreign relations, is of extremely limited value. It would be better to start with the institution of the family and move outwards from this to the community and the state. The teaching of political and international history could well be left until the higher grades of secondary schools.

Such an approach could also be linked with elementary biology and hygiene, and courses in home management and the care of

[1] L. Mumford, *The Culture of Cities*, London, 1940, p. 471 et seq.

children.[2] Teen age children should also be given elementary instruction in the biological aspects of procreation, in order that they should have a healthy knowledge of both the social and biological functions of the family. The treatment of these subjects, as part of an integrated school curriculum by teachers trained in their subjects, is preferable to their handling by parents and other non-school groups. This is not an indictment of the modern parent, but rather an emphasis upon the place the school plays as the effective community centre of the modern child. From the age of five, and frequently earlier, the child becomes dependent upon the school for its formal instruction, and the school must now provide many of the opportunities for community life which previously could be achieved in the home of the large family. Moreover, it appears axiomatic to the writer that the child should receive formal instruction in human biology before he is introduced to the "spiritual mysteries" and other non-biological aspects of sex through church groups and other bodies. Further, proposals to teach sex through the mediums of the radio and films tend to separate the teaching of this subject from others with which it should be associated within the schools.

These suggestions, it will be noticed, follow closely many of the proposals of the Swedish population commission. They alone of the proposals discussed in the last chapter appear to give sufficient attention to the training of the *next* generation of parents, and to place sufficient emphasis upon the non-material aspects of declining fertility. The education of the young along the lines outlined above will lay a firmer foundation for the future than propagandist measures directed to adults by the state. Nor is it sufficient, in the present state of society, to leave to religious leaders the task of creating new standards in regard to the family. Those who conclude from the comparatively high fertility of countries like Italy, Poland, Portugal and of the French Canadians that "the believing and practising families make up for the losses of the unbelievers and materialists"[3] forget that high fertility can also be correlated positively with illiteracy and negatively with urban concentration, and that there are clear signs that fertility in French Canada is falling in response to advancing industrialization.[4] The high

[2] At present, courses in domestic science, etc., are largely confined to those who have not the intellectual ability to master a foreign language or the finer points of mathematics—a system which may well engender an attitude which will encourage childless marriages.

[3] Rev. C. Mayne, "Exit Australia," *Australian National Secretariat of Catholic Action*, Melbourne, 1945, p. 53.

[4] Chapter VII, *supra*.

fertility of non-Christian countries, such as Japan, might also be noted. This is not to deny that the Church may encourage a change of attitude among some sections of the community; but if the bulk of the community is to be influenced quickly, the task of creating a new set of values will have to be undertaken in the Australian schools.

Education will accomplish little, however, unless it is accompanied by the other measures to create a social and economic environment favourable to fertility. But before we discuss the positive measures that may be taken to achieve this aim, let us consider some steps that should be avoided. The practice of contraception has frequently been condemned in this country; but any attempt to deprive the population of birth-control methods is to be condemned. The case against such a step can be supported on other than moral grounds. It is as true of Australia as it is of Sweden to state that the neo-Malthusian movement has almost run its course, for it is obvious from a study of differential fertility that the majority of the population is practising birth control in some form or other. A population policy which attempted to remove the means of rational control would merely increase the incidence of abortion, which has already reached serious proportions, and would be repugnant to most Australians to-day. Further, to limit the means of birth control before adequate facilities exist in hospitals and nursing homes for an expanding number of births is to put the cart before the horse. There is much to be said for the Swedish approach of first controlling the trade in contraceptives to ensure that those which are inefficient and harmful are prohibited, and of taking steps to see that the public is educated in the use of birth-control methods. This approach is the best insurance against an unhealthy increase in abortion. Public education in regard to birth control would be much more difficult in this country than in Sweden because of the strength of religious feeling in the matter. Those who refrain from the use of contraceptives, but who at the same time practise sufficient moral restraint to keep their families within a size that ensures the maintenance of quality, are to be praised; but again, it must be stressed that the majority of the population would not display such restraint if deprived of contraceptives. The fallibility of man is here taken for granted. Consequently, the practical choice of any government which wishes to preserve the quality of the population while it is laying the basis of a positive pro-natalist policy, may have to be between two evils, rather than between a good and an evil. And

the lesser of the two evils is the establishment of birth-control clinics to disseminate knowledge of birth-control methods. The establishment of such clinics would need to be accompanied by rigorous control of abortion and the less desirable methods of birth control.

A policy of repressing birth-control knowledge, besides being a denial of the right of parents to choose voluntarily the size of their families, would also tend to increase the number of "unwanted" children. This would seriously endanger the quality of children, particularly in the low income groups among whom the average family is already largest. The net gain in population would be conditioned, not so much by the number of births which would follow from such a policy, as from the difference between births and an increased rate of maternal and infant mortality.

Further, any policy for Australia must accept the principle of the emancipation of women. The Nazi policy attempted at first to encourage the return of the mother to the home by depriving working wives of eligibility for state marriage loans. The right of the mother to enjoy a wider society than children and home must be recognized and the way out must be found by adjusting the amenities of the home and community to meet the requirements of the modern woman. Nor are state bribes and prizes likely to appeal to the Australian mother. They may have some meaning in a regimented totalitarian state, but so long as the principle of the voluntary control of the size of the family is accepted, it is not a legitimate sphere of government to honour the prolific. In a democratic community the incentive value of such methods would be negligible.

These suggestions are all of a negative character, and unless they are accompanied by positive measures they will tend to lower the birth rate rather than raise it. The positive measures must also be designed to meet Australian requirements. We have already indicated from our analysis of trends in Australian fertility that there are no grounds for assuming that, in the absence of positive pro-natalist measures, reproduction will be sustained at a level sufficient for biological survival, and the factors towards which such a policy should be directed may be very briefly stated. Marriage trends have been consistent, in regard to both the proportion of young persons marrying and the average age of marriage. The increase in childless marriages has been comparatively slight. More important has been the growing interval between marriage and the birth of the first child. This factor may have important

effects on the size of the completed family. The most significant trend in Australia, however, as in most other countries of declining fertility, has been the decline in the proportion of families with three and more children. Further, the nature of differentials in fertility must also be borne in mind when pro-natalist measures are discussed, for such measures may endanger the quality of children in the low income groups unless they simultaneously relieve the parents of those children of the increased economic burden which at present follows the birth of each additional child.

Positive measures to meet these problems may be considered in two groups: those given in cash and those in kind. It will be seen from the study of pro-natalist measures in other countries that the emphasis in Germany and Italy was upon the cash motive. The same applies in the policies now in operation in France and the Soviet Union. On the other hand, the Swedish policy emphasizes the value of benefits in kind. Cash benefits, they consider, tend to be inefficient because frequently the money is not used directly to supply the needs of children, but may be spent by parents in the pursuit of their own pleasure. For this reason the Swedes have rejected the principle of cash endowments for children, and are attempting to achieve the same end by such measures as the control of the prices of essential food and clothing for children, the provision of school meals, the extension of educational benefits, free maternity care and children's health services. The object of such measures is not a cash inducement to parents to increase the number of children, but the creation of an environment which will remove the economic burden of child-bearing.

In principle, the Swedes offer the most constructive approach. Cash benefits should be maintained where benefits in kind cannot readily be supplied; but lavish cash endowments tend to be a wasteful expenditure of public money, for they do little to reconstruct the social environment in favour of mothers and children. This is perhaps the most serious weakness of the French policy. Too much emphasis is placed upon the principle of a family wage and insufficient upon the provision of maternity and child welfare services. Also, if cash endowments are designed as an incentive to child-rearing they must be sufficient to offset the burden of each additional child amongst the middle and higher income groups. The grant of a fifty per cent. increase in the basic wage rate of a community to parents of four children may offer a real economic gain to the low income groups, but be quite inadequate for the needs of the upper income groups. Thus such a policy may

only tend to increase the differential between the two in a manner which is undesirable for eugenic reasons, assuming there is equality of opportunity in the community.[5] Finally, cash benefits, without the simultaneous provision of services required for an increasing birth rate, are not desirable for the same reason as the suppression of birth-control knowledge is not desirable. They tend to put the cart before the horse, and to encourage larger families before society is prepared to receive them.

To what extent, then, should cash benefits be encouraged in Australia? Marriage loans have been suggested at times in both official and unofficial circles. In its report on the birth rate in 1944 the Australian National Health and Medical Research Council[6] suggested that assistance to young couples in setting up homes was desirable because it would, among other things, encourage earlier marriages, giving a better prospect of additional births. But apart from temporary fluctuations which have followed periods of economic recession, there has been no long-term trend towards a higher average age of marriage in Australia as there has in Sweden. The advantages of using public money to reduce the age of marriage are uncertain. It is true that studies have shown that women who marry below the average age have larger families than those who marry in their late twenties. But one factor here is the higher average age of marriage of the "middle" and "higher" income and occupational groups who practise birth control more widely than the "working class" wives. A reduction in marriage age of the former groups will not necessarily *per se* increase their fertility. And finally, if the loans are to be repaid at a low rate of interest, as the report suggests, they may serve to increase still further the interval between marriage and the birth of the first child, for they may encourage couples to incur a debt (e.g., for the purchase of additional furniture) which they would otherwise avoid.

The Swedish precedent should not be followed too closely here, for the Swedish loans are designed to meet a situation which differs from that in Australia. An important repercussion of the high educational attainments of Sweden at the tertiary level has been that students have been forced to borrow money to complete their studies, which has created both an economic handicap and an incentive to refrain from marriage. This problem has not yet arisen in Australia. Here better results may be achieved by

[5] See Ch. VIII. *Supra*, pp. 121 ff.
[6] 18th report, *op. cit.*, p. 25.

controlling the prices of essential furniture, household goods and house rents, and by taking measures to ensure a steady level of employment and income among the groups under thirty years of age. Loans for furnishing might be considered in necessitous cases, but the wisdom of their general application is doubtful. It has been suggested[7] that assistance of this type may be necessary to offset an incidental effect of other measures designed to transfer income to families with children, since such measures will be financed largely from the taxation of people without children, including the younger men and women not yet married. This, however, illustrates the danger of robbing Peter to pay Paul, or in other words of graduating income (especially among the younger age groups) so heavily against the childless and unmarried that it encourages celibacy and thereby defeats the object it is designed to serve. A population policy should not become an instrument to further state paternalism. More than twenty years ago Mr. Justice Piddington argued against the principle of penalizing the unmarried. He considered that marriage endowments would be both expensive and difficult to administer, and that it was preferable to pay both single and married men the same wage for the same work in order that the former should have some opportunity of meeting his potential needs and of saving for marriage.[8] A corollary which follows from this is that the single man should not be so heavily penalized by graduated taxation that he cannot meet his potential needs.

Of greater significance to this country than fluctuations in marriage are the interval between marriage and first birth, and the decreasing number of births after the second. The two problems should be treated together, for the decrease in later births is probably related to the postponement of first births. To what extent can cash endowments assist here? The principle of cash endowments must now be accepted in Australia; but it would be undesirable to make them the chief technique of a pro-natalist policy as they have done in France. Earlier exponents of the child endowment principle in Australia were optimistic regarding the potential results that would be derived from its application. Mr. Justice Piddington, writing in 1925, observed that what Australia wanted was "not rhetoric bedecked with baby ribbon upon 'The

[7] *Ibid.*

[8] A. B. Piddington, *The Next Step, A Family Basic Income*, Melbourne, 1925, pp. 48-49.

Day of the Child', nor benevolent asylums, nor the kindly provisions of crèches or baby clinics, or children's playgrounds, or occasional treats . . . but a strict and even-handed canon of plain justice" which would recognize the right of children to be maintained from industry and enable the mother, as society's trustee for nature and education to discharge the duties of her trust.[9] He was pleading for the acceptance of the theory of a living wage "based upon the rights of Distribution not on service in Production."[10] Further he saw in endowments a means of lowering infant mortality and of reversing the downward trend of the birth rate. Endowments would not induce "the less desirable parents of the community" to breed, because "the dissolute and thriftless" were just the classes that had remained untouched by the practice of child prevention. He pointed to the fact that the birth rate had seriously declined between 1916 and 1919—the very years in which the basic wage had fallen furthest behind the cost of living[11]—and, "reasoning from the past into the future," concluded that many thousands who were then avoiding children would welcome them when every child had an adequate living ready for it.[12]

The probable effect of cash endowments upon mortality may be granted, and the justice of the theory of a living wage based upon the rights of distribution rather than service in production may be accepted; but the effect on the birth rate is less certain. Mr. Piddington was much too optimistic. A liberal endowment may win extra births from the low income groups, but may at the same time be quite inadequate for the white collar worker or professional man, whose standards for his children are based on education to the tertiary level, and whose social class requires the maintenance of his expenditure upon other items than the basic necessities of life. R. F. Harrod has put the matter succinctly by stating that "an increase of means will not make the potential parent feel himself better able to afford another child if it synchronizes with a still greater expansion of what he regards as the necessaries of life."[13] To achieve this synchronization, Harrod has suggested for Britain a scheme of compulsory insurance in addition

[9] *Ibid.*, p. 29.

[10] *Ibid.*, p. 28.

[11] This may have been one cause of the decline. But Mr. Justice Piddington failed to consider the effect during these years of the absence from their homes of military personnel.

[12] *Ibid.*, p. 55.

[13] R. F. Harrod, in *The Manchester School*, *op. cit.*, p. 12.

to flat rate child endowments.[14] Each adult male, with an income of £250 and over should, he suggests, pay 1/- in the pound, with a maximum contribution of £50 per annum, towards an insurance fund. Payments varying according to the amount contributed would then be made for second and subsequent children (but only half the full amount would be paid for the second child), and a contributor would receive back slightly more than the full amount of his actual and expected contributions on the birth of the third child. For each additional child after the third he would receive 49/51ths of his expected contribution (the funds for such payments being made available from the contributions of those who had fewer than three children). The rate of benefit for each eligible child would also be doubled after the age of seven years. A father earning £300 p.a. would be entitled to £30 p.a. during the first seven years of the child's life, and then £60 p.a. until the child attained 13 years of age. The corresponding figures for a father with an income of £1,000 would be £68 and £136. Similar schemes of endowments graduated according to the income of parents have been suggested by other British writers.[15]

All these writers assume that some further incentive than flat rate endowments is necessary to raise the fertility of the middle and higher income groups, who in the views of Harrod and Fisher are the repository of a large part of our knowledge, ideas, culture, and of the art of right behaviour in the more complex affairs of life. This view may be open to challenge by those classes who are acutely conscious of the inequalities of economic and cultural opportunities in our modern society; but nevertheless it should be admitted that, because of the influence of fashion and social example which these middle and higher income groups do have in society, the existence of low fertility patterns among their members may have serious biological repercussions on the whole community. But such a scheme of graduated allowances, because of its emphasis upon the needs of a minority, tends to be politically unrealistic, particularly when related to Australian attitudes. Nor is it at all certain that a premium of 1/- in the pound on income could be carried without the curtailment of other essential social

14 R. F. Harrod, *Britain's Future Population*, *op. cit.*, pp. 31-2. The schedule of benefits proposed by Harrod are based on the assumption that the Net Reproduction Rate would be maintained at unity. If it fell below that figure the benefits could be increased; if it rose above unity the benefits would have to be reduced.

15 See, e.g., E. M. Hubback, "Family Allowances in Relation to Population Trends, *The Sociological Review*, XXIX, No. 3 (1937), p. 272 et seq.; and R. A. Fisher, "The Birthrate and Family Allowances," in *Agenda*, II, No. 2 (1943), p. 124 et seq.

services which are urgently needed to ensure that the quality of children born is preserved. The authors of the insurance schemes have also perhaps overlooked the possible effect of this financial burden plus high taxation upon the level of real wages. An interesting suggestion put forward by an American writer is that the end result of liberal cash endowments designed both to compensate parents against *all* economic loss and to provide an incentive for breeding, may be the establishment of a child-bearing profession, with some women bearing children, others taking care of them physically and others educating them, with the state assuming the rôle of father. Those who wish to earn their living by producing children will do so; those who do not will engage in other types of employment and will be content to pay the taxation necessary for the support of this new class of public servants.[16]

Without considering further this last prognosis—which, in view of the efficiency of modern contraceptives, is not entirely fantastic—it is clear that a system of pecuniary rewards graduated according to income would tend to perpetuate the existing class structure, which is as much the result of inequalities of opportunity as of innate ability. In view of the emphasis in the Australian social structure upon equality of opportunity, the idea of graduated allowances must be rejected; but equally the complete replacement of flat rate cash endowments by services in kind must be rejected for this country. Provided such endowments are accompanied by other services designed to provide a social re-direction in favour of the family, they may be an important adjunct to a pro-natalist policy, although by themselves they may have a negligible effect on the birth rate. This is a point which the Swedes do not appear to have taken sufficiently into account.

Cash endowments should be related to the minimum needs of families at existing standards. The determination of those needs awaits further research in Australia, and it is intended here to indicate only in broad outline how endowments may best be related to pro-natalist policy. Cash allowances are at present (1946) granted in Australia through a child endowment of 7/6 per week for each child after the first, and through tax deductions. In the case of the latter, a deduction of £100 from the income liable to tax is allowed for the wife and £75 for the first child, with a limit in each case of £45 on the actual concession of tax. The tax deduction for children eligible for child endowment takes the endowment (itself not taxed) into account, a deduction of £30

[16] K. Davis in *The Sociological Review, op. cit.*, pp. 289-306.

only being allowed for each child after the first, with a maximum concessional allowance of £8, which is reached at the income level of approximately £500 per annum. These allowances (endowment and taxation allowances) increase the net income of persons receiving £400 or less per annum by approximately 7-8 per cent. for each child after the first, but the percentage increase is reduced sharply in the higher income groups and amounts to about 3½ per cent. at £1,000 per annum.[17]

It is obvious that at these levels the allowances do not cover the minimum requirements of a child, although they do make an important contribution to costs. A Melbourne Social Survey estimated in 1942 that the weekly cost of minimum needs (food and clothing) for a child up to the age of 15, at the average prices prevailing during the five quarters ending in December, 1942, was in the region of 11/2 and 15/- (varying with age).[18] At the prices prevailing in 1942, therefore, an endowment of at least 10/- per week, in addition to concessional tax rebates, would be needed to approximate to the minimum needs in food and clothing of children under the age of 15 years. Endowments for second and subsequent children at this level would cost approximately £25 million on the basis of the present juvenile population and distribution of births.

The extension of cash endowments to first children would be costly, but from the pro-natalist point of view it should be seriously considered, for it might pay greater dividends than the lavish grants to later children. The case for the extension of assistance to first children depends upon two related factors—the growing interval between marriage and the birth of the first child, and the expense of the first child to young parents. In the majority of cases the present tax concession covers only a small proportion of the minimum needs of the first child. The Melbourne survey referred to above estimated that at the minimum standard, and assuming a two-year spacing of children, the cost at 1942 price levels fell from 15/3 per week for the first year of the first child's life to 9/11 per week for the second child, and then rose to 11/10 for the third, to 12/7 for the fourth and to 15/3 for the sixth child. A cash allowance in addition to the present tax concession may have its repercussions in more second and later births by encouraging a psycho-

[17] N.H. and M.R.C., Report, *op. cit.*, p. 25. The later reductions of taxation rates will have altered the details given above, but not the general picture. See also V. H. Wallace, *Women and Children First*, Melbourne, 1946, pp. 168-70.

[18] From a paper prepared by the Director of the Survey for the N.H. and M.R.C.'s *Report*.

logical attitude among young parents at an early stage in their married career favourable to the procreation of children. Unless adequate coverage is provided for the minimum needs of the first child the effectiveness of endowments for later children may be partially nullified. It is suggested, therefore, that an endowment of 7/6 per week for the first child should be considered, even though it would add approximately £18 millions to the child endowment bill.

Allowances on the basis we have discussed (i.e., 7/6 for first child and 10/- for each child after the first) would raise the total cost of child endowments to some £43 millions, compared with less than £19 millions to-day. This sum is more than three times the budgeted figure of £13 millions expected from the payroll tax for 1947,[19] which at the moment is the main source of revenue for endowments.

The consideration of the financial amendments which would be necessary to meet this burden the author leaves to those who are expert in the intricacies of taxation. But it should be noticed that the proposed rates are no higher than those at present in force in New Zealand (which now allows 10/- a week for each child as well as tax rebates) and are still considerably lower (as a proportion of average income) than those in operation in France. The allowances suggested are considered the minimum cash payment necessary both to meet those essential needs of children which cannot be readily supplied by services in kind, and to have any significant meaning as pro-natalist measures.

The introduction of these measures should not be met by curtailing any existing services. Cash bonuses, even at the level suggested above, would increase social maladjustments, as we have suggested, unless accompanied by an immediate extension of welfare services for mothers and children. That these are unsatisfactory is revealed by the mortality statistics for children. The infant mortality rates of the crowded areas of our large cities are frequently twice those of the well-to-do suburbs. In Melbourne, for example, the infant mortality rate (deaths from one month to one year) of Collingwood between 1935 and 1939 averaged 28.8, compared with 7.7 in Kew.[20] Similar differentials are apparent when mortality rates are considered by occupations, those in labouring

[19] Commonwealth Treasurer's Budget Review, *Sydney Morning Herald*, Nov. 11, 1946.

[20] G. R. Bruns, "The Vitality of the People of Melbourne," in *The Australian Quarterly*, XVI, No. 3 (1944), p. 72.

and unskilled occupations showing by far the highest rates.[21] The fact that the greatest variation in infant mortality occurs after the first month of life indicates the inadequacy of existing services to eliminate unnecessary wastage of life. Increased cash endowments may help to meet this situation, but as important is a welfare policy for mothers and children, with emphasis upon the period from the return of the mother to her home after confinement until the child attains school age.

At present a maternity grant is given to all mothers, the amount being £15 for the first child, £16 for the second and third, and £17/10/- thereafter. This grant should be continued, but it is quite inadequate by itself to cover more than a fraction of the costs connected with the birth of a child. Indeed, at prices prevailing in 1946 it was sufficient to cover little more than the official minimum list for the baby's layette as laid down by the Division of Maternal and Baby Welfare in New South Wales. A budget of the costs of a normal birth published in a Sydney paper in May, 1946, placed them at £71.[22] When allowance was made for tax rebates on medical expenses, medical insurance and maternity allowance, a net deficit of £40/10/- remained. The greater part of this was made up of medical and chemist's expenses and essential clothing for mother and child. Costs such as these reveal the necessity for the provision of maternity services which will be paid for by the whole community and not fall upon individual parents. That the cost of such services can be borne is suggested by the fact that they have been in operation for some years in New Zealand and in Sweden. These services should include free specialist treatment where necessary, both before and after birth. They should also be available in approved private institutions unless and until facilities in public hospitals and maternity homes are sufficient to supply the needs of all who wish to take advantage of them. Nor should they be subject to a means test. Such a policy would be a further inducement towards infertility amongst those groups in the community which already have the smallest families.

It may be true that no mother is denied medical attention during confinement because of lack of means; but so long as a large section of the public has to anticipate the expenditure of a lump

21 *Ibid.* See also his *Cots to Coffins. Infant Mortality in Melbourne, 1943*, Melbourne, 1944.

22 *Sydney Sun*, May 13, 1946. This budget may be compared with the estimated average cost of having a baby, published by Dr. V. H. Wallace (*op. cit.*, pp. 157-8). His figure was £64/10/4, and it only allowed £5/5/ for confinement, and accommodation in a public ward. The other expenses he included were maternity wear, layette and nursery requirements (pram, cot, etc.).

sum of up to £50 at the birth of each child, it may well begin to count the cost after the first experience. The total costs to the nation of such services (excluding the existing maternity grant) would be considerable,[23] but they would be an essential adjunct to any endowment policy designed to increase the number of births. The latter without the former would merely threaten health standards of the mothers and babies of the community.

For the same reason cash endowments and free maternity services must be followed by improved facilities for mothers and children after confinement. Considerable advances have already been made in Australia, particularly in the metropolitan areas, in the development of clinics for the care of the children under two years of age,[24] but there is little uniformity in the policies of the separate states and no recognized national standard of minimum services. In Tasmania, and in South and Western Australia, maternal and infant welfare services are still largely in the hands of private bodies.[25] The encouragement of community interest in this service through decentralized administration is desirable, in order that each welfare centre should be recognized as an essential part of community life; but it should be the task of a central authority to see that minimum standards are maintained throughout. Infant and maternal welfare centres should provide facilities for pre-natal and post-natal education, as well for the physical health of the child. Where possible they should be within convenient walking distance of the home. In this regard the aim in Sydney and Melbourne to have a centre within half a mile of the home of every woman[26] may be taken as a standard. In necessitous cases and in all areas of scattered population outside the city the services of visiting nurses should be available. The inclusion in welfare centres of crèches, play areas and nursery schools would also enable mothers to combine attendance at clinics with essential shopping and other activities. Some steps have already been taken along this line in recent years in Victoria.[27] Thus the aim should be a single centre designed to meet the needs of mothers and children under the age of 5 years in all areas in which the concentration of population permits such a development. In thinly

23 Assuming the average cost per head for pre-natal, confinement and post-natal attention would be approximately £40, the total cost per annum for 150,000 births would amount to £6 millions, or one-third of the present cost of child endowment.

24 For a useful summary of existing services and of the minimum extensions considered necessary see N.H. & M.R.C., *18th Report, op. cit.*, pp. 31-37.

25 *Ibid.*, p. 35.

26 *Ibid.*, p. 35.

27 *Ibid.*, p. 32.

populated areas the services should, as far as possible, be taken to the home. The fact that infant mortality rates tend to be higher in rural than in metropolitan areas emphasizes the urgency of an extension of welfare services in the former.

In Australia the public responsibility for children has been concentrated mainly upon the needs of children during the first year of life and after they attain the age for entry to state primary schools. In the intervening period the responsibility for children has remained largely in the hands of individual parents. But there is little rationality in a system which ensures that the child is soundly cared for until it can walk, and then withdraws public assistance during the years which may be most burdensome in the life of a young matron who wishes to bear an additional child. That the community is alive to the need of relieving parents of some of the burden during this period is apparent in the active work of many voluntary organizations which have tried in recent years to extend nursery school and kindergarten facilities. In Western Australia a voluntary organization has prepared a comprehensive plan for extending pre-school work throughout the whole State.[28] It is important that voluntary activity of this kind should be encouraged for the same reason as in the case of maternity and infant welfare centres. Kindergartens must be an essential part of community activity. But without much more liberal assistance from local and state funds, and without a greatly extended system of teacher training this hiatus in child care between the ages of two and six years must continue for some time. Yet nursery schools and kindergartens provide perhaps the best available means of supplementing home care, and can do much to create an environment in the home favourable to the birth and early care of additional children. They should, moreover, as we showed above, be located near, or be attached to, the maternal and infant centres in order to minimize the inconvenience of the mothers.

In view of the importance of all these services as aspects of community life, the financial responsibility should be shouldered partly by local authorities with a subsidy supplied by the State and/or Commonwealth Governments adequate to ensure that a complete coverage of services is available to mothers and children in all areas. Again, the cost of these services is likely to be considerable, but they are part of the price of survival. The maintenance costs of caring for a child for a year in the simplest kind of nursery-kindergarten, operating only for about three hours a day,

[28] *Ibid.*, p. 33.

has been estimated (in 1944) at £10. In demonstration and research kindergartens, operating for five and a half hours and providing a well-balanced mid-day meal, the cost has been placed as high as £30.[29]

The provision of baby clinics, kindergartens and children's playgrounds are no longer to be considered as admirable charities, as Mr. Justice Piddington regarded them, subsidiary to child endowment. They are an essential part of any system which aims to achieve the "strict and even-handed canon of plain justice" which he sought, for they help to create a social environment which no longer penalizes the mothers of the community. Supplemented by a system of trained domestic assistants and mothercraft nurses to help in times of sickness or emergency, they will do much to remove the burden of domestic drudgery which many women give to-day as a "cause" of declining fertility. But relief from this drudgery should no longer be provided in this mechanical age solely by human aid.

Little has yet been done in Australia to organize technical efficiency to meet the needs of parents, through the provision of community laundries, and the mass production and standardization of labour-saving devices for the home. Social justice in regard to the family implies not merely the cash payments for children, but also the reorientation of the social and material environment in the interests of the family.

So far we have dealt primarily with the needs of mothers and children under school age. But obviously the needs of the family do not end there, particularly in these times when efficient social and economic organization demands not only literacy, but a higher standard of education for all sections of the community. The child is now a dependant until the age of fifteen years at the earliest, and in some cases until he or she accepts political responsibility. If society demands these standards, public responsibility for education must be extended accordingly. If education at the tertiary level is no longer an academic diversion for those who can afford it, but the training essential to the preparation for employment in a wide variety of occupations,[30] the community must be prepared to accept at least some of the responsibility to lighten the burden of parents in the lower income groups.

[29] *Ibid.*, p. 33.

[30] This is not the place to digress upon the proper functions of a university. It is assumed that the trend towards utilitarian education which has been in evidence in Australian Universities will continue. Moreover, even if professional training were removed from the Universities, other bodies would have to continue the training, and the problem of financial aid would still remain to be dealt with.

The whole question of higher education is one to be considered in relation to social efficiency rather than to the birth rate; but no parents should find it necessary to restrict the size of their family because of the anticipated personal cost of permitting their children to develop to the full their innate abilities. The provision of school meals in primary and secondary schools would lessen the household tasks of mothers, as well as provide a measure of financial relief for parents. The need for the extension of free education to the tertiary level, including living allowances for those forced to live away from home, is now being recognized; but the application of a means test to these benefits may have a depressing effect upon fertility because of the exclusion from them of the children of the middle income groups. The high costs of education which the professional and commercial classes have had to face have almost certainly been one factor in their low fertility. But the social snobbery which has encouraged many of the parents in these classes to abstain from the facilities provided by the state for free secondary education, and to send their children to private schools, has undoubtedly caused them to undertake financial burdens which have not necessarily been rewarded by concrete advantages. While it is true that the provision of free education for all at the tertiary level might continue to concern directly a comparatively small minority, it might influence the fertility patterns of many people in the community. If all parents could anticipate the education of their children to the tertiary level without direct cost to themselves, many would have removed one important fear—a fear that they could not provide adequately for the education of their children. The anticipation at the birth of a child of costs that may have to be met fifteen or sixteen years ahead has probably affected the fertility patterns of many more than the parents of those children who have actually entered the Universities.

This problem of anticipated cost is one which goes beyond the provision for children. Modern society decrees that a man shall cease to become a breadwinner at the age of sixty-five, and sometimes at sixty. During working years real income is considerably reduced by contributions to superannuation funds which frequently have to be supplemented by private insurance funds. It has been observed that in Australia the amounts claimed for taxation rebates in insurance tend to reach a maximum and then decline after a certain number of children—usually two or three. The same holds for medical insurance and home ownership (rates and taxes).[81]

[81] *Ibid.*, p. 23.

This emphasizes the necessity of co-ordinating pro-natalist measures directed towards the needs of women and children with wider social service policies. Pro-natalist measures cannot be considered by themselves but only as part of the whole. In this matter the Swedes have revealed greater wisdom than the French or the Germans. A policy which lavishes so much of public revenue upon the needs of women and children that essential services for the bread-winners cannot be maintained may defeat its fundamental purpose. The size of the family may be determined as much by the degree of security available against sickness, accident and old age, as by aids to marriage and cash endowments for children. Thus, a system of national superannuation, similar to that in operation in New Zealand, and available to all irrespective of means, should perhaps be considered as an essential part of a pro-natalist policy.[32]

The problem of reducing the direct costs of medical services should also be considered. Medical services must be considered in relation to the needs of the community as a whole, and not to any one section of it. Nor should they operate in such a way to penalise any section. The medical needs of a family increase roughly in proportion to size, and a situation in which medical expenses diminish after two or three children have been born, cannot be considered as satisfactory. The free services for mothers and children which we have already recommended would help to reduce family costs, and are desirable as a pro-natalist measure. But, for the same reason as in the case of superannuation, increased security for the adult community against sickness and ill-health may provide pro-natalist dividends. Again, it is the anticipation of costs that may have to be borne that must be considered. Radical overhauls of the medical services have already been made in New Zealand and Sweden, the former providing "free" medical, hospital and X-ray services, and the latter insisting only on a nominal charge. Both provide free maternity services. Similar overhauls have been recommended in England in Sir William Beveridge's report, and in Australia by the Joint Committee on Social Security.

The use of the word *free* is, of course, a misnomer, but at least a socialized medical service, by spreading costs over the whole community, does benefit the lower and middle income groups, by ensuring that they can receive medical attention irrespective of

32 When the scheme is in full operation in New Zealand in 1965, all over the age of 65 years will be entitled to superannuation of £104 a year. Thus a married couple will receive £208. This will be financed primarily from the social security funds built up by a 5 per cent. tax on all wages.

their income and the size of their families. The techniques of a medical service for Australia cannot be dealt with at any length here. The provision of a reasonable measure of equality may not necessitate complete socialization, but may perhaps be achieved by measures similar to those being adopted in Sweden.[33] But from the pro-natalist point of view, the case for an overhaul of the existing services can be simply stated. The statement that no services are at present denied those in Australia who cannot afford to pay is not sufficient argument against radical change. Those who can afford to pay for the services of two or three children under the present system will not readily pauperize themselves and their families by having a third or fourth child. Parents planning their families to-day think in terms of the medical expenses they and their children will have to pay, not of the services that will be provided when they cannot afford to pay.

The third item we observed on which expenditure tends to be reduced after the birth of two or three children is housing.[34] At this point the discussion of social and economic reforms to serve pro-natalist ends becomes even more closely interwoven with the broad question of environmental change than in the case of medical services, or other social services for the adult and aged sections of the community. Housing plans to meet the needs of the family cannot be considered merely in terms of rent reduction or extended provision for home ownership. The problem involves also the questions of the regional development of the city, of the decentralization of industry, and of social amenities to prevent the continued accumulation of capital and of the concentration of population in sterile metropolitan areas.

Rent rebates have formed a part of the policies of both Sweden and Germany. The life of the German experiment was cut short in 1939, and by 1940 the Swedish scheme had benefited only a few thousand families, and some of the difficulties which had to be faced in those countries will apply to any schemes likely to be adopted in Australia. The general application of rent rebates is virtually impossible until public housing schemes are undertaken on a large scale. The subsidy of rent from public revenue to heads of large families living in homes owned by private individuals is not feasible. Until some alternative scheme can be put into operation, the family can best be assisted by the control of rents, by the grant of cash endowments (e.g., child allowances) and

[33] *Supra*, Ch. XII.
[34] *Supra*, p. 219.

services in kind of the nature already outlined, and by an extension of the facilities for loans for home building. Loans for home building may already be advanced in Australia up to 80 (and in some cases 90) per cent. of the construction cost; but while these measures are valuable aids to middle income groups, they are of little assistance to the low income family in which the larger average family reduces further the opportunity of saving the necessary 10 or 20 per cent. capital conditional for the grant of a loan.

For those living in congested city areas there seems no alternative to large-scale public housing schemes, planned to build a new social environment. The Swedish policy of encouraging co-operative building and subsidizing rents to large families out of public revenue has the merit of encouraging community interest; but it is of limited value in the large metropolis, in which the solution of the housing problem within a reasonable time requires a major surgical operation.

The blue-prints for such an operation have been prepared in Australia during the war years by the work of the Commonwealth Housing Commission.[35] The Commission recommended the control of land use through preliminary zoning pending regional and town-planning legislation; the control of land prices and land sales; and the acquisition of land by State authorities in order that public housing estates might be designed in conformity with sound town-planning principles.[36] The Commission also considered the needs of the family in regard to rental, and suggested that rental should be adjusted according to capacity to pay, with rebates in favour of children. The rebates recommended were based upon family income, and not only upon the income of the main bread-winner, and were designed to ensure that each family should have sufficient income to meet the basic needs of each child. Family income included the whole of the husband's income, plus two-thirds of the wife's (exclusive of child endowment), and one-third of each child's, with a maximum of 30/- per week from the income of each child (but it was not intended to include the income of children where it was less than 10/- per week). In calculating family income for purposes of rebates, a deduction of 5/- per week was recommended for each child after the first under the age of 16 years, this allowance being based upon the assumption that approximately 10/- per week was required to keep each child, and

[35] See Commonwealth Housing Commission, *Second Interim Report*, March, 1944.
[36] *Ibid.*, p. 41.

that the amount of 5/- per week was at that stage provided by child endowment. The rent rebate was then to consist of the difference between the economic rent and one-fifth of the family income thus calculated, but in no case were the rebates to be permitted to reduce rent below eight shillings per week.[37] In addition to rent rebates, the Commission recommended an extension of facilities for financial assistance for home building, to provide money at interest rates lower than those offered by private institutions, but it was recognized that this form of assistance would not benefit the low income groups without unduly lengthening the period of repayment.

These plans thus provide for a public housing scheme to benefit the family, and they are largely built upon schemes already tried in the State of Victoria,[38] as well as in overseas countries. But such schemes cannot be taken as the panacea for all the demographic ills of the community. Without a reduction in building costs rent rebates of the type outlined would be available to almost all tenants of Government erected dwellings—a fact which the Commission stressed[39]—and the cost to the public would be yet another factor keeping taxation high and real income low. The social justice of home ownership plans and rent rebates to meet the needs of large families cannot be denied, but we are not yet in a position to speak with any assurance of the demographic consequences of these measures. This is a field which awaits further research. They may be urgently necessary in the interests of population quality, but they may also encourage the development of a set of social standards which will engender a cautious attitude in regard to family size. We have already observed that the largest families are found in the most congested areas.

The same applies to other plans of ecological significance that are now widely accepted as socially desirable. Some method by which cities can be prevented from attaining the size of "unmanageable bigness," to quote Mumford, is urgently necessary on general social and economic grounds, as is the regional development of cities to provide fuller opportunities for community life. But it cannot be assumed that such plans will *per se* have any marked effect upon the fertility of the whole community. Such plans have frequently been advocated as essential to a higher level

[37] *Ibid.*, p. 72.

[38] e.g., see F. O. Barnett and W. O. Burt, *Housing the Australian Nation*, Melbourne, 1942, especially Chs. VI and VII.

[39] Commonwealth Housing Commission, *op. cit.*, p. 39.

of fertility.[40] But it should be remembered that the trend of differentials between urban and rural areas has been towards lower rural fertility, and not towards a higher urban fertility. Decentralization, which aims at increasing the size of country towns and taking to these areas some of the mores and habits of the larger urban areas, may hasten the downward trend of urban and small-town fertility. Again, however, the precise demographic effect of such plans cannot be gauged until much more research has been undertaken. The most that can be said at this stage is that such plans must avoid some of the environmental factors which have probably affected the low fertility of metropolitan areas, such as the problem of high rentals, high costs of education (especially for the middle income groups) and the divorce of home and community.

But decentralization, while it may prevent the further growth of metropolitan areas, cannot easily reduce them in size. The Australian environment, moreover, presents very formidable obstacles to decentralization, because of the concentration of raw materials, such as coal and metal ores in comparatively few and isolated areas, and the high cost of haulage from coastal areas to the inland towns capable of development. So long as Australia is bent upon the development of a highly industrialized economy it will be difficult to avoid the concentration of half the population in the capital cities of the States, and the problem of survival will be solved only if those cities can be made capable of sustaining a replacement level fertility. If this is to be achieved a much higher proportion than in the past of the wealth derived from the economic activity within those cities will have to be directed towards the provision of services in kind of the nature outlined in this chapter.

The population policy for Australia which we have briefly outlined in this chapter implies a social revolution. But the matter cannot be viewed in any other light if we accept the thesis maintained in the opening chapters of this book that the fertility trends of the Western world are the consequences of social change. The folly of narrowing the issue down to a matter of remedial quackery and seeking a solution in repressive measures and a system of bribes and punishments has been amply illustrated in history. A population policy "must work itself into the whole fabric of social life and must interpenetrate and be interpenetrated by all other

[40] e.g., see C. Mayne, *op. cit.*, pp. 47-49. For a stimulating discussion of the significance of town and city planning in population policy, see L. Mumford, *City Development, Studies in Disintegration and Renewal*, New York, 1945, p. 199 et seq.

measures of social change" and "must, if we are to react rationally, make us re-think all social objectives and programmes."[41]

Because of their wide ramifications, it would be politically impossible to put into practice immediately all the measures we have discussed. And even if we assume that it would be possible, it would not be desirable to do so until we have some assurance of the consequences of such hasty action. It is a case of building slowly the foundations of a social organization biologically capable of survival, and by careful and sustained research endeavouring to anticipate the demographic effects of each step. That the task is difficult is obvious, for social engineering of necessity implies preparing a programme that can never be tested empirically before it has become history. But the present organization of our society is clearly weighted against the family and the measures we have outlined provide merely a basis on which to commence a reorganization for survival.

Social organization to-day is essentially the product of developments in the fields of physical science and technology. It is now time to call in the social scientist to examine the structure that has been created, to help to devise ways and means of preventing disintegration. In this task the demographer can play an important part. He has already achieved some small success by the development of new techniques for the measurement of demographic phenomena, which have brought to light much new material for the study of the causes and results of changes in fertility patterns. His task now is to move from a study of the past to the future and to anticipate the probable broad demographic effects of social change.[42] By so doing he will help to keep population policies on a realistic basis, and to discourage the unwarranted optimism of politicians and propagandists who believe that large families will follow, as the night the day, if more people have more money to spend and better houses to live in. The demographer, indeed, is still in the role of the sceptic. He may be prepared to recommend a variety of measures from cash endowments to community services to remove some of the obstacles that at present undoubtedly cause many parents to refrain from having additional children. But at the moment he is not at all certain that these steps will produce a flood of births to recapture the rate of growth of the Victorian era, for to-day the conditions of control are entirely different. We are,

[41] Alva Myrdal, *op. cit.*, p. 4.

[42] The author hastens to add that he does not mean to imply by this statement that the social scientist can predict the exact course of future events. But an informed guess may at least prevent the wastage of public revenue.

as we emphasized earlier, moving from a situation of involuntary control to voluntary control; and while social reforms may persuade some parents to increase family size they will almost certainly create a set of conditions, both material and psychological, which will reduce the family size of others. It is the task of the demographer to continue his research in the field of human ecology to endeavour to determine the conditions that will ensure survival. In this regard the Swedes have given a lead.

In conclusion, it should be admitted that the demographer is dependent upon the economist and the statesman. The measures already attempted in Sweden and other countries, and recommended for Australia, imply a high level of economic activity and a condition of international peace. Material prosperity may not produce a demographic revolution; but neither can the foundations for survival be laid in a condition of economic chaos. The social reorientation which we have recommended will be determined ultimately by the capacity and the willingness of the community to pay for it. Nor can it be achieved unless economic organization is free from the recurring threat of war. But here again we enter fields beyond the scope of this book, and this chapter in particular has meaning only if we assume the absence of both economic chaos and war.

INTERNATIONAL ASPECTS

PART V

CHAPTER XIV

POPULATION TRENDS AND INTERNATIONAL RELATIONS

To the population expansionist the objects of the policy which we have outlined will have been disappointing, for he will have observed that we have rejected the aim of rapid population increase through the one factor of fertility. That aim has been rejected as impracticable in any community in which the individual freedom of choice in the matter of family size is to be respected. If it is considered that the very survival of the nation demands the establishment of a fertility pattern much higher than replacement level, this goal may be attainable if we are prepared to permit the state to "nationalize" reproduction. But the implications of such a policy are so alien to our concept of democratic rights that we must reject it. The techniques of policy which were discussed in Chapter XIII accept as fundamental the assumptions that the family must remain the basic reproductive unit of the Australian community, and that the final decision concerning the size of the completed family must remain the inalienable right of Australian parents.

This does not mean that the state and the community (whether it be city, country town or local governmental area) has no responsibility in the matter. The community has already accepted much of the responsibility for the education, health and recreation of the children who are born; but it has not yet accepted its responsibility towards the children who are yet unborn. The failure of the community—and particularly the modern urban community—to organize its resources to remove the disabilities that have beset the parents who wish to have even two and three children, quite apart from "large" families, has undoubtedly been a major factor in the limitation of the size of the family, whether as the result of excessive mortality in poverty-stricken and congested city areas, or as the result of controlled fertility amongst those who have achieved a measure of economic success. The task of the governing authorities of the community, whether they be federal, state, shire or municipality, is to remove those disabilities; it is not their proper function to offer bribes to the fecund and to impose penalties

upon the sterile, or to place restrictions in the way of individual choice of family size.

The population expansionists, if they are at all concerned with such questions as the rights and liberties of the individual, cannot ignore the political consequences that may follow any attempt to attain their goal of rapid population growth through a greatly increased fertility. Further, the expansionists, if they are to be realistic, cannot ignore the fertility trends of Western countries as a whole during the past century. Those trends show clearly that we have emerged, or are emerging, from a period of abnormally rapid growth and are returning to a position of comparative stability, and perhaps even decline, in which the controlling factor is likely to be the universality of birth control. It is this factor and the low mortality of Western countries which present us with a problem unique in demographic history. In the conclusion to their study of the future population of Europe, a group of American demographers stated that, "narrowly conceived, the demographic problem of Northwestern and Central Europe is to find the new vital balance, to demonstrate that efficient human reproduction by means of low birth and death rates is compatible with survival."[1]

Narrowly conceived, this is Australia's problem too; but, of course, it is not the whole problem. The acceptance of this limited aim for reproduction does not necessarily imply a negative attitude towards the other factor of population growth, immigration. In this regard the Australian position has differed, and still differs, greatly from that of most of the countries of Northwestern and Central Europe. All the evidence suggests that the former could carry double or treble the existing population without lowering the material standards of life. The latter (N.W. and Central Europe) may suffer economically from a sudden reduction of population, but it is questionable whether an increase in population would be accompanied by any economic advantage. Further, Australia's strategic position as an outpost of white civilization with some 1,000 million Asiatic people living in contiguous countries cannot find a parallel in Northwestern and Central Europe.[2] It is this external factor which renders Australia's population problem so complex, compared with that of much of Europe. But the complexity of the problem is not in itself an argument in favour of rapid and extensive population increase. Indeed, a careful examina-

[1] F. W. Notestein, et al, *op. cit.*, p. 181.

[2] The nearest approach may, in future, be Sweden, a small country of low fertility, facing U.S.S.R., a populous area of high fertility. But unlike Australia, Sweden has no potentiality as an immigrant country.

tion of the whole external scene engenders a cautious attitude towards immigration, and indicates that the whole framework of ideas that have coloured thinking on the subject for almost a century must now be re-cast to fit the new demographic patterns that are emerging both in the East and in the West.

In the past, Australians have tended to be influenced by three factors: the size of their country, a firm optimism regarding its potentialities, and the numerical preponderance of Asia. Population policies have been designed in the belief that the required number of people could be secured to achieve a goal entirely favourable to Australia's interests. In 1904 the Royal Commission on the Birth Rate in New South Wales stated in its report that "public men, seeing in the establishment of the Australian Commonwealth the first step in the construction of a great nation, and anticipating therefrom a rapid increase of national prosperity and progress, have referred hopefully to the day when Australia with her teeming millions will hold a commanding place among the peoples of the world."[3] This quotation could be repeated, *mutatis mutandis,* for almost any period since that Commission met. It epitomises the traditional concept of Australia's population problem—the desire to attain a population sufficient to maximise the utilization of the known resources of this vast island-continent; fear that population might be insufficient to meet the threat of aggression; and optimism concerning the future role of the nation.

This approach to the subject was sound enough so long as there remained a reasonable possibility that the required population could be secured, either by a high fertility, or by the influx of assimilable immigrants, or by both. But we have shown that because of fertility trends both within this country and abroad in potential sources of immigrants, such optimism is no longer warranted; and that even the maintenance of fertility at replacement level, and the influx of immigrants at the rate of 40,000 a year, will not provide Australia with more than half the twenty million people which national leaders now appear to have accepted as the minimum commensurate with security. In view of the optimistic note on which the Commonwealth Immigration Advisory Committee concluded its work in 1946, the net intake of 40,000 immigrants a year may at first sight appear too pessimistic. In its Report[4] the Committee stated that, as a result of a European Survey undertaken in 1945, they were impressed by the strong urge among

[3] Report, *op. cit.*, p. 53.

[4] Commonwealth Immigration Advisory Committee, *Report*, Feb. 27, 1946. Government Printer, Canberra.

the people of many European countries, such as Switzerland, Holland, Norway and the Baltic countries, to leave Europe for the New World. In addition, the Minister for Immigration reported in November, 1946,[5] that enquiries relating to 153,000 persons had already been recorded at Australia House, London. Further, we have already observed in Chapter XI that the potential absorptive capacity of Australia for immigrants is considerable. The annual maximum has been officially estimated at 70,000 per year,[6] although it is admitted that because of shortages of materials, demobilization, rehabilitation and associated problems, the effective absorptive capacity will probably remain considerably below that level, the figure for 1947 being placed at 35,000.

But the difficulties of securing even this number of immigrants per year will be considerable. A major bottleneck at the moment preventing the immediate operation of free and assisted immigration schemes is shipping, for which reason the Commonwealth Government is considering the construction of suitable ships in this country and the buying and chartering of others from the United States of America. Housing is another problem that need only be mentioned. Every delay caused by these difficulties, which are being accentuated by the manpower shortage in the Commonwealth, will deprive Australia of potential European immigrants, because with the passage of time the urge to vacate Europe is likely to diminish. The Commonwealth Advisory Committee saw Europe at a time when there was an urgent desire to vacate war-torn lands. There is ample evidence to show that this desire is still strong; but the well-being of Europe will require the reconstruction of agriculture and industry, not the export of people, and as soon as European reconstruction moves from an ideal to a fact there may be a strong urge on the part of governments to discourage emigration. The British Government has so far co-operated with Australia in the matter of emigration, but already there are signs that some sections of opinion are unfavourable to an exodus from Britain. It has been pointed out that the departure of every young worker represents fifteen or twenty years heavy capital investment in education, housing medical services and training, and that to permit these valuable assets to vanish at the very moment when they can make a return is an extremely expensive policy, and, in view of the present demographic structure

[5] *Sydney Morning Herald*, Nov. 11, 1946, Report of Statement by the Minister.

[6] The Hon. A. A. Calwell. *Immigration—Government Policy*—Ministerial Statement, Aug. 19, 1946, to the House of Representatives, Government Printer, Canberra, pp. 1-3.

of Britain, will leave that country with a preponderance of old and a surplus of fixed capital which may become well-nigh insupportable.[7]

Here we have arising again the type of opposition that was so frequently voiced in Britain in the inter-war period and which reached its climax in the blunt statement of the Overseas Settlement Board in 1938, that the Dominions would henceforth have to seek migrants from other areas than Britain. The war has not brought any fundamental change in Britain's problem. It has merely heightened the danger of depopulation and economic collapse. It has brought a temporary urge on the part of many to vacate Britain, and it has at the same time increased the absorptive capacity of the Dominions for migrants with industrial skills. But when we analyse the British situation we find that the solution to Britain's economic difficulties may require an influx of migrants, not an exodus. Having disposed of the whole of their overseas assets, during the war years, the British people have now to increase their exports by 60-70 per cent. above the pre-war figure to pay for essential imports, and it is already obvious that Britain has scarcely sufficient manpower to achieve this goal. She is seeking migrants from Europe, especially amongst displaced persons, to augment the labour force. Further, the withdrawal of British troops from India and Egypt has been hastened by Britain's internal manpower crisis.[8]

In relation to the economic problem which Britain now faces, the country is underpopulated rather than overpopulated. Emigration which skims off only the young adult male and female section of the population will merely add to the economic burdens which Britain is trying to carry. Indeed, it would not be unreasonable for the British Government to insist that those countries which seek young workers should also either take a proportion of Britain's aged dependants, or supply funds for their support in Britain. Only in this way, or by the replacement of the young emigrants who leave Britain by young immigrants with similar skills from other countries, can Britain avoid a manpower crisis. Nor is the suggestion that Australia and other immigrant countries should take a cross-section of the British population likely to cause insuperable difficulties here, provided the fertility of the Australian

[7] *The Economist*, Aug. 17, 1946 (CLI, No. 5373).

[8] It is not suggested, of course, that the demographic factor is the only or major one in the political developments in areas such as India, Burma and Egypt. But historians have hitherto placed too little emphasis upon the relation between demographic factors and imperial policy. It is quite clear that Britain no longer has the manpower to maintain a far-flung empire, nor would she have had for long, had the war not occurred.

community is retained at a level sufficient to prevent population decline, and therefore an increasing burden of aged dependants. If the British population could be reduced by one-third or even more, in this manner (i.e., by the removal of a cross-section of the population without upsetting seriously the ratio of bread-winners to dependants, or the capacity to maintain a replacement level fertility) some of the disabilities which Britain has incurred as a result of the war might be lessened. But the mere exodus of people from Britain without reference to the factors we have discussed will solve no real problem.

This illustration of the British position brings us to the crux of the post-war problem of emigration from Northwestern and Central Europe. The emigration of peoples to the white countries of the New World is no longer a movement which is necessarily beneficial to both the emigrant and immigrant countries. It is likely to be beneficial to the former only if emigration removes a cross-section of their people. Immigrant countries, such as Australia, did not have to consider this problem in the nineteenth century when the rate of natural increase was sufficient to provide both large quantities of settlers for the New World and continuous population increase in the Old. But that era has passed.

The demographic position of countries like Britain, Norway, France and Germany is such to-day that the exodus of young men and women could, if it was encouraged for even a decade by countries of the New World, practically ruin the chances of European economic recovery. Western Europe would cease to exist as a force in world affairs; and while it may be true that two world wars have had their origin in the international rivalries of Western European Powers, the present international scene does not encourage the view that the prospect of war will be removed by their prostration. The New World, including Australia and the other British Dominions, must reconsider the long-term effects of their immigrant plans upon the Old World if they accept the view that the reconstruction of Europe is a desirable end. The present difficulty of transporting intending migrants may eventually prove advantageous to Europe, for it will tend to hold them there until reconstruction provides them with a new hope which will reduce their urge to vacate their native lands.

These are some of the questions which the Australian population expansionist must now consider. The situation is not quite what it was in 1938 when the Overseas Settlement Board told the Dominions that Britain had no people to spare. Then there was

no urge to move from Britain. Indeed, Britain was an immigrant country.[9] The same was true of other countries of Western Europe. It was not the empty spaces which were the magnets for migrants, but the industrial areas of Britain, the Ruhr and the Rhineland. Now, however, the urge to move is there and in many areas industry is at a standstill. The temptation for Australia to take advantage of Europe's prostration is strong; but unless we base our policy upon the capacity of other countries to supply immigrants without injuring their own internal structure, rather than upon the capacity of Australia to absorb a given number of people, our actions may have unfortunate international repercussions.

The expansionist will probably point out that the fear of depopulation of Northwestern Europe through emigration is not as great as we have indicated, because the emigrants could be replaced by new stock from Southern and Eastern Europe, where reserves of manpower are still in excess of labour requirements. It is true that this position does obtain in Southern and Eastern Europe, and some Western European countries are already planning to augment their stationary or dwindling labour forces from these areas. France is reviving on a grander scale her pre-war policy of encouraging immigrants from Italy and Poland. The introduction of Italians into Britain has also been mooted. But if migrants from Southern and Eastern Europe are assimilable to the British and French way of life, they should be assimilable to the Australian, Canadian or New Zealand way of life; and the direct removal of these emigrants from these sources to the Dominions would be a more efficient scheme for the British Commonwealth as a whole than the circular movement entailed in the migration of non-British settlers to the United Kingdom to replace British personnel removed to the Dominions. Further, if the Dominions, in their anxiety to secure Northern Europeans, offer passage and other monetary assistance, the governments of the countries of origin may claim that this is an infringement of the principle of freedom of choice in regard to migration, and that it is a form of bribery, and they may therefore counter the move by offering inducements to the prospective migrant to stay—or even by simply refusing passports.

Finally, whether the migrants come from Britain, Northern Europe or Southern Europe, many of them are not likely to be equipped with the skills or attitudes which will enable them to fit

[9] See R. M. Walshaw, *op. cit.*, for a study of immigration to Britain between 1933 and 1938.

readily into their new environment. Emigration is no longer what it largely was in the nineteenth century, the movement of unskilled to unskilled occupations. The Dominions now want also the artisan, the trained mechanic and the engineer. Even the agricultural labourer must now have a modicum of technical efficiency. In other words, they are seeking the types which European countries will wish to retain. The "surplus" available for emigration is likely to consist largely of unskilled, wherever they may come from. These problems do not provide a reason for refusing these classes entry if we require a larger population, but they emphasise the price that will have to be paid. Their absorption and assimilation will require a degree of public assistance in the way of passage money, training and education, and of private assistance in less tangible ways, that has not been accorded in the past to the non-British immigrant to Australia or to other British Dominions.

If Australia is prepared to pay the price, the immigrant quota of 35,000 immigrants a year, rising even to 70,000, may be filled for a time. But the long-term demographic trends are against the mass exodus of people from Northern and Western Europe, unless these areas are to be crippled economically and culturally. Further, the mere acquisition of numbers from white sources, be they Northern or Southern European, is not enough. Australia's population policy will be influenced in all its aspects by past and probable future events in both the white and non-white sections of the world. The nature of the demographic revolution that has occurred in the West largely determines the ends that can be achieved by a pro-natalist policy; the demographic revolution that appears to be beginning in the East will bring new pressures to bear upon our immigration policy.

The "shrinking" of the world as a result of modern technical and scientific developments, and the spread of independence movements in the major areas of Western and South-East Asia, have at last forced Australians to the realization that they constitute primarily a Pacific nation, and that every question of national policy must now be considered in relation to our near neighbours, the Indonesians, Malays, Burmese, Indians and Chinese. In what manner, then, are contemporary developments in these areas likely to affect Australia's population policy?

If the Western people continue to adopt the nineteenth century view that problems of "overpopulation" can only be solved by moving people to resources, they will strengthen the case of those in the Asiatic countries who claim living space for their under-

nourished people. Because of the expanding rate of population growth that has already occurred in India and Indonesia, and that will occur in China and other areas of South-eastern Asia in response to improved technical efficiency, and because of the existing distribution of the world's population, migration can do little in the twentieth century to solve problems of overpopulation. The task of the Western peoples is rather to prove to the East that population density is not a bar to decent standards of living, and that with modern technical and scientific development the problem of overpopulation can best be overcome by the movement of resources to the people, and not people to resources.

Let us consider briefly the probable reaction of Asiatic people to large-scale emigration from Southern and Eastern Europe. There are many parts of these areas which may be bracketed with India and China as regions of high birth rates, low living standards and undeveloped resources. So long as Australia and the other immigrant receiving countries of the world continue to place an almost complete ban upon the "overpopulated" Asiatic countries, and at the same time attempt to solve the overpopulation of the white countries of low living standards by merely draining off the surplus, their argument that the solution of the "overpopulation" of Asia is not a matter of emigration but of the fuller development of resources will fail to have much point. Moreover, the Asiatics can hardly fail to observe that the elaborate machinery that may be necessary to assimilate the foreign white immigrant from areas of low living standards would also be sufficient to assimilate the Asiatic.

In short, then, if Australia is to avoid giving point to the arguments of those in Asiatic countries who claim that emigration is a solution to overpopulation, she must add to her immigration policy support for the policy of transferring resources to people, as well as people to resources. She will be justified in conducting a vigorous white immigration policy only if she also supports those who attempt to minimise the need for mass migration amongst the peoples of the white world. The application of the Tennessee Valley principle on a large scale to the Danube in order to increase the agricultural and industrial productivity of South-eastern Europe is more important than mass emigration from these areas, for it would provide practical evidence that the Western nations with their highly developed technical skills could practise themselves the solution for overpopulation which they preach to the Oriental countries.

Australia's immigration policy, then, whether it concerns British or non-British settlers, must also take this aspect into account if it is to be realistic. It is not enough to be concerned only with Australia's short-term needs. A vigorous immigration policy should be followed; but at the same time care should be exercised to see that a search for numbers is not creating a set of international conditions which may be detrimental to our long-term security and well-being.

On moral grounds, too, there is only one course open to the Western nations. Their contacts with the East have swollen the Asiatic populations beyond the levels that would otherwise have obtained, and they cannot now oppose that expansion of industrialization which is essential if the Eastern countries are not to suffer plagues and famines on a scale quite unprecedented in their history. Herein lies the paradox of the whole situation, because only by the implementation of policies that may for a time lead to a vast increase in the coloured population can their basic demographic problems be solved. They must be brought with all possible speed through the full cycle of growth which the West has experienced. The transition will be accompanied by problems greater than any yet faced, if only because these Asiatic countries are already areas of great population density, unlike those of the Western world at the dawn of their industrial era. The transition from an agricultural to an industrial regime cannot be made without the temporary sufferings and disorganization of great sections of the populations. The lessons of the past must be learned well, in order that the transition should be as quick as possible.

The first step towards the alleviation of population pressure in the economically backward areas of the world is the application of scientific methods to the production of essential foodstuffs. The yellow and brown races are already increasing at the rate of some 90 millions every decade, and three-quarters of them still do not enjoy decent health standards. During the twentieth century improvements in distribution (notably in India) have enabled better use to be made of available food supplies, but the volume of production has at times lagged behind the increase in numbers.[10] To meet this problem the productiveness of areas already being utilized must be improved: new land in India, China, Manchuria and the South-west Pacific must be brought

[10] See R. Mukerjee, *Population Problems in South East Asia*, Allahabad, 1945, pp. 7-8; and S. Chandrasekhar, "Population Pressure in India," *Pacific Affairs*, v. XVI, No. 2, 1945, pp. 166-184.

under cultivation. Associated with this policy to relieve Asia from the recurring threat of starvation must be the development of urban industries, such as textiles, to improve the supply of essential consumer goods. This will assist the dissemination of new ideas, and lay the foundation for advances in education and the spread of birth-control habits. Selective emigration of potential industrial and educational leaders for training abroad should also be encouraged to assist this dissemination. Here the Australian Universities and Schools could help.

Nor is our concern for the welfare of the East purely a matter of humanitarian interest. The capacity of Australia to carry a larger, or even the present, population at high standards of living will depend largely upon an expanding export trade. With Europe becoming increasingly a sphere of American and Russian economic interests, the Asiatic zone will become more important to Australia, provided, of course, that the purchasing power of the Asiatic peoples can be increased through rapid industrialization.

Thus, there may be a limit set to the white population which Australia can secure, as a result of demographic and economic trends in the West, at the moment when population pressure in the East becomes even more acute than it has been; and the national independence of these Eastern countries will increase the possibilities of tension between white and non-white unless there is a mutual understanding of the nature of the population "problems" of each. An "open-door" policy in regard to migration is impracticable in a world in which there is a vast range of inequalities of standards of living. Such a policy would create international tension and provide no solution of population problems, either in white or non-white countries. Neither Australia, nor any other white country, could, through immigration, provide a solution for the problem of "over-population" in India, China or Indonesia, for the removal of people from these areas would merely create a partial vacuum which would again be rapidly filled unless accompanied by a revolution in agricultural techniques and in traditional attitudes to birth control. On the other hand, however, there is a strong case for eliminating from the existing immigration legislation in many countries any measures which may be interpreted as prejudicial on racial grounds.

So long as Australia's neighbours in the Pacific and Indian Oceans were living in colonial territories, the exclusion of non-white people was a comparatively easy matter. Immigration legislation had to be acceptable to the metropolitan power rather

than to the colonial peoples. That the influence of the former was sufficient to protect in some measure the interests of the latter, and to ensure that legislation did not savour, overtly at least, of race prejudice, was apparent in the pressure exerted by the Imperial Parliament concerning the Restriction Bill proposed as a result of the Premiers' Conference of 1896. But the first clear sign of the direct influence of an independent Asiatic nation in forcing a compromise upon Australia was the amendment of the first Commonwealth Immigration Restriction Act at the request of Japan in 1905, when the test which immigrants could be asked to undergo was altered from "any European language" to "any prescribed language."[11]

Now, however, a vast change is occurring in the status of the people of Asia, with the move towards political independence in Indonesia, India and Burma, and with strong nationalist movements in many of the remaining colonial territories. Further, as we emphasized in our opening chapters, these changes of status are occurring at a time when population pressure in these areas is becoming more acute than ever as a result of the imperial policies practised during the last century. Those policies assisted declining mortality without reducing fertility. Had they anticipated the demographic consequences of their policies the governing nations might have acted differently. It is clear, however, that the West cannot now reverse the developments which they have set in motion in the coloured section of the world. To attempt to do so would be to exacerbate the relations between West and East, and to court future disaster. These facts cannot be ignored when the question of immigration restriction arises.

"White Australia" is widely used to-day, but it is true, as the late Mr. John Curtin pointed out, that the term does not occur in Australian statutes; and when we consider the nature of the revolutionary changes which are occurring in the Eastern world, there appear to be good reasons why it should be abolished from our vocabulary. But this step alone will not necessarily convince the non-white peoples that our immigration policy is based upon the principle of racial equality. Despite the argument of Australians, which they state in good faith, that the present dictation test (by which any intending immigrant can be asked to write 50 words in any prescribed language) does not imply racial prejudice, it is difficult for Chinese and Indians to interpret it in this manner,

[11] For an excellent summary of the development of the White Australia Policy, and of contemporary problems, see A. P. Elkin, "Re-thinking the White Australia Policy," *The Australian Quarterly*, XVII, No. 3 (1945), pp. 6-34.

for they are aware that it has rarely been applied against white immigrants.[12] It is doubtful if the Government of Australia is yet prepared to consider any amendment of the Immigration Act to eliminate the possibility of such misinterpretation of Australia's policy; but if public opinion polls can be taken as a guide on the matter, a surprisingly large proportion of Australians consider that some amendment should be made.[13] The abolition of the language test and the introduction of a quota system, similar to that in operation in U.S.A., would be less galling than the present system and would not endanger the "colour" of Australia. Suggestions for a quota have been made before, but they have been opposed by those who fear that this would be the thin edge of the wedge and that soon the fecund Asiatics would out-breed the Australians; but such an argument ignores two facts—the smallness of the numbers involved, and the assimilation of non-white immigrants. From a study of the fertility of immigrants, including Asiatics living in "white" lands, we can conclude that if Asiatic persons of reasonable education were admitted to settle in Australia to become full citizens, and were permitted to fit into our educational, industrial and general social pattern, their sense of social responsibility would be such that we would find their family size approximating to our own.[14]

But a mere alteration of the Immigration Act would leave untouched the basic problem of overpopulation in Asia. That can only be overcome by policies designed to reduce poverty, to remove illiteracy and to lead to the rational control of fertility in areas of low-living standards. How to achieve these momentous goals is beyond the scope of this work. We are here merely stating the case for a re-assessment of traditional attitudes. But the whole situation with which we are now faced in Asia supports the conclusion that Australia is one of the countries whose long-term demographic problem is "to find a new vital balance, to demonstrate that efficient human reproduction by low birth and death rates is compatible with survival" and "to prove to the world that neither growth, nor size, but the efficient adaptation of people to

[12] At the 9th I.P.R. Conference Indian and Chinese delegates inveighed against the institutional practices and social customs which were still determining the economic status of minority groups, even where overt national or racial discriminations did not exist. See, Institute of Pacific Relations, *Security in the Pacific* (a preliminary report of the 9th I.P.R. Conference), New York, 1945, pp. 69-79.

[13] In 1943 and 1944 "Australian Gallup Polls" indicated that 35-40 per cent. of the population favoured limited non-white immigration. (Quoted by A. P. Elkin, *op. cit.*, p. 30.)

[14] *Ibid.*, p. 28.

resources is a pre-requisite for human welfare and a rich culture.[15] An immigration and pro-natalist policy is justifiable only if it is consistent with these aims; and the objects of a greater population for Australia should be to permit this country to develop its resources, and to use the increase in its national strength attained thereby, to help to fight disease and squalor in the "overpopulated" areas of the world. Alone this country can do little in this campaign; but it may become an important ally to those who fight for these ends in the Councils of the world. Idealistic as this may seem, it is only by the acceptance of such a challenge that population questions have any real meaning for this country. To plan for population increase on the basis of the rivalry anticipated by the Commissioners who enquired into the state of the birth rate in New South Wales in 1904 is to neglect the many other factors besides the demographic which are now involved. But this is not to imply that care should not be exercised to ensure that the intending immigrants are readily adaptable to the Australian environment, and in possession of the skills necessary to guarantee economic and social efficiency. Only thus can Australia play an adequate part in Pacific and world affairs.

In conclusion, let us stress the point that the policies we have outlined in regard to both immigration and fertility provide no easy solution to the problems which now face Australia. There is no easy solution. They represent merely an attempt to reconsider population questions in the light of a number of known factors, such as the attitude of the white people of the Western world to the size of the family, the revolutionary change that has occurred in the balance of the world's population and the rise of new independent nations in the East. Those known factors provide ample reason for re-thinking all our objectives in regard to population policies, for it is evident that the world is not fitting into the mould so carefully prepared by the policies of the industrial nations in the nineteenth century. The demographic consequences of those policies cannot be ignored, either in the East or in the West, and Australia, situated as she is midway between the two, must now face both ways. To argue as Mr. Beasley did in 1945 when Vice-President of the Executive Council, and as many of different political hue did before him, that "once there is any compromise on the White Australia Policy, the whole policy will be lost,"[16] is to reveal an escapist attitude and an unfortunate

[15] F. W. Notestein, et al, *op. cit.*, p. 181.

[16] *Sydney Morning Herald*, July 10, 1945, being a statement made in reply to a suggestion that Australia should consider a quota system of immigration.

misunderstanding of the issues now involved in a changing world. It may be true that our past policy did help to save Australia in the War of 1939-45, but it is folly to assume that this policy can be handed on unaltered in the future from generation to generation. Our capacity to survive as an independent nation will depend upon our ability to adapt our thinking and our actions to changing circumstances.

But while the time has now arrived for a re-assessment of population policies in the light of known factors, there are many unknown factors which may yet further complicate our problems. If we assume with Hobbes that the state of nature is a state of war, the maintenance of a sparse population with a high standard of technical efficiency may provide the best assurance of security in the immediate future in the age of atomic power. But against this there is the unknown course which will be followed by the attainment of political independence and the application of industrial techniques among the Asiatic peoples. The only course which Australia can follow is to consider each issue as it arises to find the highest common factor between her own interests and the legitimate interests of others. A pointer to the type of pressure that may be exerted by the coloured peoples upon this country has already been given in the deliberations of the United Nations Organization. In the dispute in the Assembly during its last session in 1946 between the Union of South Africa and India concerning the status of Indians resident in the former country, the representatives of the coloured peoples showed surprising solidarity, and the Australian delegation was placed in the position where open support for the Union could provide grounds for an attack upon our existing immigration policy. Australia abstained from voting, and by that action provided perhaps the most substantial piece of evidence so far available of the need for a re-examination of national attitudes and policies in regard to immigration in particular and population trends in general. Australia can no longer afford to sit on the fence and watch clashes on questions such as these in the Councils of the world.[17]

[17] But there is good reason to believe that Asiatic countries may for some time be more interested in the question of control of immigration within their own territories than with restrictive legislation in Australia and other white countries. At the Inter-Asian Conference held in New Delhi in March-April, 1947, the main concern was with inter-Asian migration—e.g., the problem of the Indians in Burma, the Chinese in Malaya, etc. For a report of the proceedings of the Conference, see G. Packer, "The Asian Relations Conference: The Group Discussions," and "The Asian Relations Conference: Documentations," in *The Australian Outlook* (the J. of the Aus. Inst. of International Affairs), 1, No. 2 (1947), pp. 37 and 59-61.

The policy we have advocated is in effect a call for a spirit of adventure in the field of international affairs. But adventure must be conditioned by reality, and the commitments we accept, and the policy we pursue in our relations with other countries, must take into account the population and industrial strength which we now have or which we can confidently expect to assume, and not which we should like to have but may never attain. It is time for the slogan of "populate or perish" to be cast away, for in the light of the demographic trends of the world to-day it has no real meaning, and is an admission that we are an unimaginative people, bankrupt of ideas upon a very complex subject which affects almost every aspect of our existence as a nation.

SUMMARY OF CONCLUSIONS

1. The full significance of demographic trends in Australia in the present century can only be understood if they are considered in relation to the population movements in both the Western and Eastern sections of the world. The era has passed when Australia could secure without conscious effort the population necessary to guarantee the full utilization of its resources.

2. A study of fertility trends in the Western world shows that in those countries which have attained relatively high material standards of life a new vital balance has emerged. The control of mortality as a result of advances in industrial, scientific and medical techniques has encouraged, and indeed necessitated, the widespread control of fertility. This latter form of control is now so universal that population movements have attained a new sensitivity to economic and social factors, and the real problem facing western countries with high living standards is no longer population expansion, but the establishment of population stability. Only in Eastern Europe and the Soviet Union is the rate of population growth likely to expand in the immediate future.

3. The population of the main areas of the non-white Eastern world is still controlled by mortality, and this situation is likely to obtain for several generations. But there is evidence that in some areas (e.g., of India and Indonesia) the excessive mortality was being checked in the twentieth century. If these Eastern countries undergo an industrial revolution similar to that experienced by the West in the nineteenth century, a period of rapid population expansion will occur. This movement will be of major importance to Australia, for it will give rise to new pressures in areas which have been brought close to the Commonwealth, as the result of modern technical developments, at a time when the East is freeing itself from political and economic dependence upon the West, and when the West itself is threatened with numerical decline.

4. The dangers inherent in this shift of the world's balance of population has encouraged the view that Australia's fundamental problem is to achieve immediate and rapid population increase,

but such increase will become increasingly difficult because of the demographic revolution that has occurred in the traditional sources of emigration.

5. An analysis of Australian trends reveals that the historical evolution of fertility patterns is typical of the Western world as a whole. The significant feature of that evolution is the decrease in the size of the completed family and the negative correlation between such factors as city size, occupational status and income, and the size of the family. Here, as elsewhere in many other areas of the West, the tendency appears to be for those in rural areas and low income and occupational groups to adopt more rigid habits of fertility control.

6. The causes of the emergence of this small family habit must be sought, not in any single factor, or yet in a group of related factors, but in the nature of the civilization and culture that has accompanied the growth of modern industrial society.

7. That section of population policy which is concerned with the birth rate cannot, if it is to be realistic, hope to change those family habits to recapture the nineteenth century rate of natural increase. Economically, it is desirable that population decline should be prevented. A pro-natalist policy should aim at population stability, and in the absence of immigration the achievement of this limited aim will necessitate a readjustment of economic reorganization to enable it to function smoothly in the absence of the relatively rapid rate of population growth to which it has been regulated.

8. Further, the techniques of a pro-natalist policy must be considered within the framework of a political democracy, which means that some of the expansionist aims of policies which have already been tried in totalitarian countries must be rejected. Nor should policy measures be hastily applied. A careful study of measures being worked out in other countries (e.g., Sweden and France) will help to avoid the unnecessary wastage of public money by Australia on items which may not pay pro-natalist dividends. And finally, population policy should be integrated closely with wider social service developments, and the possible demographic effect of such measures as income security services and employment security should be closely studied.

9. The recognition of this limited aim of population stability for a pro-natalist policy does not imply a negative attitude towards immigration. It is certain, because of past trends in fertility, that

the Australian population cannot be increased rapidly in the next generation by the one factor of natural increase. Further, because of the rapid fall in fertility during this century, and because of the impetus that has been given to Australia's industrial potential as a result of the war of 1939-45, the absorptive capacity of Australia for migrants is likely to be greater in the near future than at any previous period in the country's history.

10. But the achievement of immigration targets in the future will require a search for new settlers in areas which have not previously been considered in a favourable light by either the Australian Government or the Australian people. The attempt to drain off the dwindling reserves of manpower in the Western European zone will tend to encourage opposition from the countries of origin, and white immigrants will have to be sought from Eastern Europe and from groups whose normal lives have been dislocated by war.

11. Any long-term plans for population policy, whether they relate to immigration or fertility, must take into account the legitimate needs of other countries, and it must be recognized that in the modern world, with the possibilities for the increased mobility of resources that are inherent in the present phase of technical development, the movement of resources to people is perhaps likely to be of greater significance in the relief of population pressure than the movement of people to resources.

12. The recognition of this fact by Australia is becoming increasingly important in view of the political and economic developments now occurring in Asia. It is at this point that Australia's population policy must be linked with its foreign policy; for while it is advisable to follow a vigorous pro-natalist and immigration policy, it is equally necessary that Australia should use its influence in international councils to secure the relief of population pressure in Asia through the increase in the ratio of available resources per head of population. Unless this is achieved the search for more people by Australia will not bring any long-term solution to the demographic problems now facing this country, for whatever population target may be reached by Australia in the measurable future, the rate of growth is likely to be relatively less than the rate which will prevail in Asia.

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NOTE: The Australian section provides a guide to the main sources of statistical material and to official reports, etc., relating to other aspects of population trends and policy than immigration in the twentieth century. The periodical material, books, etc., which are listed adhere to the same principle. Works dealing with immigration are cited only if they make direct reference to fertility trends. Similarly, the historical works mentioned contain some material relevant to a study of demographic history in Australia.

In the later sections dealing with other countries and areas than Australia, reference to census data, official vital statistics and year books is omitted. Material relating specifically to Asia is given in Section C.

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