

THE POPULATION PROBLEM.

On April, 1937, the following discussion on the Population Problem was broadcast from Radio Eireann under the auspices of the Society. The President, Mr. Joseph Brennan, acted as Chairman. Others taking part were Dr. R. C. Geary, Professor G. A. Duncan, Professor George O'Brien and Mr. Stanley Lyon, Director of Statistics Branch, Department of Industry and Commerce.

The President : The present discussion on the Irish population problem has been arranged on the invitation of the Director of Broadcasting by the Statistical and Social Inquiry Society of Ireland. This Society which in a few years will celebrate its centenary has provided in the past and continues in an increasing degree still to provide opportunities for the examination and discussion in a scientific and non-partisan spirit of problems of social interest in Ireland. Membership is not in the least restricted to experts and the Society welcomes all who from any standpoint take an interest in its work. The date of the Society's foundation, 1847, the year of the Famine, marks a crucial point in the trend of Irish population and makes it appropriate that the first broadcast of proceedings of the Society should relate to this subject which under different aspects to-day remains a leading social problem of the country.

What constitutes the Irish population problem and whether it would be truer to speak of a series of problems will appear better as the discussion proceeds. It is however a remarkable fact worth mentioning at the outset that there is probably no other country in the world which in the field of the study of population, or demography as it is called, presents such a collection of unique or extreme features.

In the number of our natives living abroad as compared with the home population we show the highest proportion of any country in the world. Emigration is therefore of the greatest significance in relation to this discussion. As a part consequence of emigration our population shows the lowest proportion of females to males in any European country. Our marriage rate is the lowest recorded for any country being only one-half of that of England. Even in the marriages which do take place our age of marriage is the latest of any country. We have at all age points an abnormally high proportion of unmarried persons especially men. These facts to which must be added a relatively unfavourable mortality experience have nevertheless not prevented us from having a birth rate which compares reasonably with that of the countries that can show better marriage statistics. In one of the decisive matters for the future population trend namely what is technically called the net reproductive rate we share with Holland alone among the countries of Western and Northern Europe the position of having a rate above unity which is the normal requirement for an expanding population.

The members of the Society who are present with me in the studio to take part in the discussion are in order of speaking, first Dr. Geary who, in a paper read to the Society in 1935, made an important fore-

cast of future population trends, next Professor O'Brien of University College, Dublin, then Professor Duncan of Trinity College. Mr. Lyon, Director of Statistics, will then speak after which I propose to sum up very briefly.

As a preliminary for more detailed discussion I shall now ask Dr. Geary to put before us the leading figures on which an understanding of our population problem must be based.

Dr. Geary : Everyone is familiar with the main features of the trend of population in Ireland. It increased rapidly from $5\frac{1}{2}$ millions at the beginning of the last century to $8\frac{1}{2}$ millions on the eve of the Famine, which comparatively speaking, was the most terrible catastrophe which ever visited any people. Thereafter the population declined continuously, at first at a great rate and then more gradually to 4,400,000 in 1911. Between 1926 and 1937 the population was practically unchanged at about $4\frac{1}{4}$ millions.

Naturally the population trend of the 26 Counties was very similar to that of the whole 32 Counties of Ireland. Between 1926 and 1936, while the total population declined very slightly it is remarkable that the population aged 15 and over increased by more than 50,000 and children aged less than 15 decreased by about 60,000. As in so many other countries, in Ireland there is a scarcity of children. Between 1936 and 1937 the Registrar-General estimated a decline of no less than 20,000 in the total population.

The undoubted fact that the decline in population was due to emigration is sometimes interpreted too literally. Actually a considerable amount of emigration is quite consistent with an increasing population. In any period the population declines when net emigration (or the number of emigrants less the number of immigrants) is in excess of the natural increase (or the excess of births over deaths). I shall refer briefly to these factors in the trend of population.

The decline immediately after the Famine was obviously due to the direct effects of this catastrophe, the phenomenal number of deaths and the exodus to the United States and Great Britain. In subsequent decades, the huge volume of migration was due partly to the attractive force of these great Irish populations abroad. At the present time the number of Irish-born (not those of Irish origin) living outside Ireland is only a little less than half the number living in Ireland, a fact which makes this country quite unique amongst the nations. The number of persons of Irish origin living abroad is incalculably great.

During the last few years migration has been towards the east. Net emigration to Great Britain increased continuously from about 8,000 in 1933 to nearly 30,000 in 1937.

The birth-rate in Eire is 19 per 1,000 which is near the world average but the marriage rate of 5 per 1,000 is by far the lowest in any country. The Irish fertility rate, or births per marriage, is one of the highest, if not the highest, on record. The low Irish marriage rate is one of the gravest social problems, but it is satisfactory to note a marked increase from 4.4 in 1932 to 5.1 per thousand in 1937 though the latter rate is little above that in the years 1910-12. This rise in the marriage rate, which has not yet had any appreciable effect on the birthrate, is probably related to the considerable increase in the urbanisation of the population during the last intercensal decade, when the town population increased by 92,000 or 10 per cent. and the rural population declined by 98,000 or 5 per cent. In most countries the marriage rate

of rural dwellers is lower, and the age at marriage higher, than amongst the urban population, but, while that is true of this country, the marriage rate of town dwellers here is very low.

The natural increase, or the excess of births over deaths, was only 11,000 in 1937 compared with 16,000 in the five years previous, and this, in conjunction with the increased migration to Great Britain, accentuated the fall in population. The 1937 figure was abnormally low; during the last half century, the steadiness of the total natural increase while total births and deaths were declining considerably was a remarkable feature of Irish population figures.

President : Was the low natural increase in 1937 due to a low birth rate or to a high death rate ?

Dr. Geary : To a high death rate.

The relative steadiness of birth and death rates in this country for many years perhaps lends some interest to a series of prognostics I have made of the trend of the population of Éire during the next 80 years, based on the assumption that the expectation of life remains the same as it was in 1925, that the estimated number of births per female aged 15-44 was about the 1936 figure and that migration is ignored. While the first two have some plausibility, the assumption that migration can be ignored in the future is quite unreal. The usefulness of the prognostics lies in the fact that they are to be regarded as upper limits, and these upper limits are far lower than most people anticipated, at all events before the recent great increase in migration to Great Britain.

With these assumptions, it is estimated that the population will increase gradually from its present 3 millions to $3\frac{1}{2}$ millions in 1976 and to $3\frac{3}{4}$ millions in the year 2016. Even with no emigration, the restoration of the population to its pre-Famine level during the next 100 years is so improbable as to seem to me impossible.

President : Would your conclusion be affected by an increase in the low marriage rate or an earlier average age of marriage ?

Dr. Geary : In the main, I think not. An increase in the marriage rate will probably not be accompanied by a *pro rata* increase in the birth-rate.

The problem of the moment is the great migration movement to Great Britain, and what is to be done about it. In the serious consideration of this question it will be borne in mind that in the past emigration has not been an unmixed evil. It has conferred on Ireland the dignity and status of a Mother country, with a prestige and influence on world affairs out of all proportion to its size. It has been a powerful contributory factor to the prodigious increase in the standard of living in Ireland during the last hundred years and the emigrants and their descendants have participated in the rise in the standard of living in the countries of their adoption. No one will wish to curb the adventurous spirit or unduly inhibit the migratory instincts of our young people, when, as we have seen, such migration is not inconsistent with a rising population. But this is the whole point. Ireland has one of the sparsest populations in Europe in relation to the agricultural land area but if the population is to be maintained at even its present level

emigration in the future must be on a considerably lesser scale than at present or in the past.

President : Thanks, Dr. Geary for, at any rate, one side of a many-sided problem.

Professor George O'Brien will now join in our discussion.

Professor O'Brien : There can be little doubt in the mind of any listener who has followed Dr. Geary's figures that the fall in the population of Ireland may be expected certainly to continue and probably to increase. The existence of this tendency has been known to Irish statisticians and economists for some time, but, curiously enough, their efforts to arouse public interest in the vitally important national problem have met with very little response. The apathy of Irish public opinion in this matter is in striking contrast with the attention devoted to the future size of the population in other countries. In Great Britain, for example, the mere probability that the population will begin to decline at some future date has given rise to much anxious speculation, while in Denmark, where the emergence of the downward trend is not expected to arrive before 1970, investigations are already being made regarding how what is there regarded as a national tragedy can be averted. Yet in Ireland where the decline has for many years been a feature of our economy, no widespread interest appears to be taken in its future course. Nevertheless the size of our population in the future is the most vital of all facts which are relevant in the framing of our economic policy. It is the people of the country who produce and consume the national income, and the material welfare of the community is intimately related to the numbers of the people.

While there is no disputing the truth of what Dr. Geary has said about the benefits which the Irish race has derived from emigration, it is no less true that emigration can be carried to a point when its evil consequences outweigh its good. When it has reached such dimensions that it exceeds the natural increase of births over deaths, it causes the population to fall, and a falling population is, normally and except in quite unusual conditions, objectionable from the national standpoint. It must be remembered that emigration which would improve conditions in a country which was grossly overpopulated in relation to its resources might easily prove very injurious to a country when the population is already sparse. It is possible to reason from this to the conclusion that, assuming that the present emigration from Ireland is injurious, the extent of the injury will increase yearly as the population continues to decline. It is important that some of the possible evil consequences of a declining population should be indicated as the first step towards the formulation of a conscious policy directed towards influencing future demographic movements.

In the first place it is obvious that a falling population, unless the rise in the standard of living per head increases rapidly, will lead to a reduced market for the products of our new industries. The infant industry argument for industrial protection implicitly assumes a rising or at least a stationary demand, and, in the circumstances of a declining demand, some of the new industries may experience rising costs of production, which will lead in turn to higher prices and a consequent reduction in the standard of living. The demand for many professional and public services may likewise be reduced with adverse effects . n

the incomes of those who provide them. Emigration also reduces the supply of labour available for agriculture, and already complaints are heard of a labour shortage in certain areas. What is perhaps more important in the long run is that the quality of our labour supply may be affected as a result of the individualistic nature of the emigration ; there is a danger of the more energetic and enterprising departing and of the less vigorous and ambitious remaining behind. The emigration may thus exert an unfavourable differential selection on the quality of the Irish labour supply, and even on the quality of future generations of Irishmen.

It does not appear to be sufficiently widely appreciated that Ireland is at present subsidizing part of the labour supply of Great Britain. The cost of rearing and educating a young man or woman to the age of twenty years must be at least £1,000, of which part is borne by the parents and part by the taxpayers. As soon as the young person is ready to add something to the national income, he or she emigrates and adds to the national income, not of Ireland but of Great Britain. The subsidy which has been paid on the export of agricultural produce is slight compared with this subsidy on the export of our manhood and womanhood. Another evil result of the emigration is that the decline in the population, for which it is responsible, will entail a growth in the *per caput* burden of all public charges. At a time when the national and local debt is increasing as it is at present, this is a consideration of some importance. There is furthermore a danger of over-investment in certain directions, as, for example, on houses and schools in the rural areas. A falling population is productive of serious capital losses and frequently of unemployment since the declining demand exercises a depressing influence on many occupations.

Enough has been said to indicate that the future of our population should engage the earnest attention of all who are in any way responsible for the formation of our economic policy. If, as the result of adequate investigation, it is concluded that the further fall that may reasonably be expected will be injurious to our national welfare, the problem of how that fall can be prevented will arise. On this matter one observation and one alone will be made by the present speaker. The remedies for a falling population in other countries have all been directed towards stimulating the natural increases of births over deaths. Assuming that such measures could be successfully applied in Ireland, they would do little if anything to stem the tide of emigration. On the contrary they would simply result in the production of a larger supply of labour to the country which, at all events in respect of human beings, is entitled to be described as our best customer.

President : Well here now is Professor George Duncan of Dublin University and I believe, Duncan, you do not agree one hundred per cent. with the conclusions so far.

Professor George Duncan : Well, not exactly. Dr. Geary and Dr. O'Brien have raised three questions of profound importance to all of us who are interested in Ireland's future welfare. Dr. Geary asks : Will migration continue, and will it result in a net decline of population ? The answer, I fear, for the present is that it will do both. So long as other countries offer the prospect of a better living than can be obtained in Ireland, and so long as immigration into them is not prohibited, so long will the flow of emigrants from Ireland continue. It does not,

however, follow that emigration from Ireland should proceed indefinitely : it would reach a natural term if, as a consequence either of the emigration itself or of unrelated technological and economic events, the living obtainable in Ireland should rise to a level comparable with that prevailing in the regions of Irish immigration, and there is no inherent reason why this should not occur.

Dr. O'Brien asks : Will the continuation of a volume of emigration which reduces the numbers of the population be injurious to Ireland's future economic welfare ? Judging both by the general tenor of his remarks and by his specific illustrations, his answer appears to be that welfare will be injuriously affected, and to a serious degree. I should like to offer a few considerations on the opposite side. For many years now Ireland has experienced simultaneously a falling population and a rising standard of production and income, and there does not seem to be sufficient ground for the supposition that this relationship will be reversed.

It can hardly be contended that the great majority of Irish farms are of a size calculated to yield the maximum net return to the farmer's efforts. The 70,000 holdings of sizes from 5 to 15 acres certainly, the 90,000 holdings of sizes from 15 to 30 acres probably, and the 60,000 holdings of sizes from 30 to 50 acres possibly are not large enough for this purpose. Enlargement of these holdings by re-distributing parts of the larger holdings would enable the smaller holders' standards to be raised, but only at the expense of the larger holders still remaining in the country. But a consolidation and enlargement of holdings permitted by emigration would undoubtedly raise the level of net output per head of those remaining.

President : I take it that the effect of emigration on holdings largely depends on how far it helps to avoid subdivision.

Professor Duncan : Yes, but it could permit an enlargement of holdings if it is of such a volume as to diminish the total number of holdings. Since in 1926 out of every 1,000 persons gainfully occupied in the Irish Free State 514 were engaged in agriculture, the bearing of the circumstance just mentioned on the aggregate economic welfare of Ireland is plain.

Again, in spite of the net decrease of population in the past, the proportion of the total falling between the ages of 15 and 65, i.e., the working population, has increased irregularly from 58.4 per cent. in 1881 to 61.6 per cent. in 1926, and, on Dr. Geary's estimate of future trends, will rise to a maximum of 67 per cent. in 1966. Certainly, the emigration to be expected, composed mainly of able-bodied persons, will pull the realised proportion below Dr. Geary's estimate but it is in the highest degree improbable that it will reduce it by anything near the margin of 5.4 per cent. A higher proportion of working population means a smaller burden of dependency and higher standards of living all round, even if productive efficiency per worker remains unaltered.

There is, thirdly, the effect upon the new industries, which Dr. O'Brien has referred to. This is largely a question of relative magnitudes. Even on the worst hypotheses, what degree of decline in the population can we expect in the next decade—10 per cent. ? 5 per cent. ? Only thrice in the last century (1841-51, 1851-61, 1881-91) has the decadal reduction

exceeded 10 per cent., and only twice again (1861-71, 1891-1901) has it exceeded 5 per cent.; it has moreover a diminishing trend. A loss of 5 per cent. in the next 10 years is, in my view, an extremely pessimistic anticipation. Is it likely that so narrow a shrinkage will not be counteracted by technical advance over a period of 10 years? I think not.

Finally, the value to us of our productive efforts here depends not only on the technical efficiency of those efforts but also upon the productiveness of other peoples and their demand for our produce. In the absence of catastrophe—war or social disruption—the prognosis in this connection is wholly favourable: within the period of time for which it is reasonable to look forward, there seems to be no reason to suppose a cessation either of a rising level of production elsewhere or of its consequent rising demand for our special products. For all these reasons I do not believe it necessary to take a gloomy view of the economic consequences to us of even the maximum likely decline of population within the near future.

Dr. Geary and Dr. O'Brien both ask: Can anything be or ought anything to be done about it? There appear to be only two ways in which public policy can affect the problem. The one is considered action to increase our productive and commercial efficiency. This is not the same thing as "making" or "providing work," which may very well have the opposite effect of lowering standards all round and stimulating emigration. Public activity in the sense indicated can produce an effect only irregularly and over long periods; it does not, in any case, appear to be an object of public policy at present.

The other possible form of intervention is the prohibition of emigration. I leave it to my colleagues and listeners to reflect upon the administrative task of enforcing such a prohibition, and the social consequences of its successful enforcement, with the suggestion only that a vital consideration is our reasonable anticipation of its probable consequences for the level of average output, and the warning only that it is entirely possible that the cessation of emigration would not result in a permanent increase of population—a fractional downward change in the birth-rate could eliminate the whole of the slow increase forecasted by Dr. Geary in the absence of emigration.

President: Very well—with two economists we have two statisticians and Mr. Stanley Lyon, Director of the Statistics Branch of the Department of Industry and Commerce, is our next contributor to this discussion.

Mr. Stanley Lyon: From what we have heard there is no doubt that a problem concerning our population exists. I do not propose to go over the ground already covered but rather I will suggest "how can statistics help towards its solution?"

The population problem in this country is not so much one of birth-rate as of emigration and lateness of marriage. Quite good emigration statistics are available and Professor Duncan hinted at prohibition of emigration presumably as has been done in Italy.

The effect of lateness of marriage on the population of a country is obvious.

To examine our problem, we require better and fuller statistics relating

first of all to the fertility of our people and secondly to the type of emigration.

For emigration I would like to have available in respect of the cross-channel movement to Great Britain the same kind of statistical material as is available in the case of trans-ocean migration, i.e., classification according to occupation, age and sex.

The periodical Censuses of Population and the regular day to day work of the Registrars of Births, Marriages and Deaths provide a certain amount of statistical material but this is inadequate to provide a comprehensive system of fertility statistics.

The statistics, at present available, while indicating a problem, are not sufficient to contribute much, if statistics can, towards its solution. We require up to date figures compiled from improved registration records. In Australia, New Zealand, Germany, Italy and U.S.A. to mention a few countries, very complete data are available on the subject of fertility of marriage but in the countries Ireland, England and Scotland, they are lacking, though Scotland has a slightly better system of vital statistics. The information needed is, in the case of births, the age of the mother, date of marriage, and how many other children the mother had.

This information could be treated as confidential and used for statistical purposes only.

The population problem is common to most civilised countries. Last year the International Institute of Statistics at The Hague set up a special Commission to consider the decline in the birth rate and to report as to what measures pertaining to statistics should be taken in order to provide a complete set of comparable statistics on all matters relating to this subject. The Commission appointed consisted of seven members representing the following countries: Austria, Czechoslovakia, France, Germany, Ireland, Italy and United States of America. We have already agreed on the form of Questionnaire which should be sent to the Official Statistical Authorities in each country asking for certain information. When that information has been received and analysed, a Report will be presented to the Institute at their Session at Prague in September next, and steps will be taken to secure uniformity of definitions and to suggest to all countries a scheme for the obtaining of data and subsequent compilation and publication of comparable fertility statistics. On the question of definitions, I might just refer to one—the birth-rate. In some countries only infants born alive are counted as births, while in others still-born infants are also reckoned as births. In others, again, registration is not required to be made until a week after actual date of birth, and if in the meanwhile the infant had died, no birth would be recorded. It will be seen from this fact alone how dangerous it is to compare with one another the birth rates as published in the official statistics of the different countries unless careful enquiry is made as to how the figure is compiled. From these remarks it is seen that statistics, however difficult to obtain and perhaps for some people dull to use, are necessary as a beginning of the solution, if solution there is, of what we call our population problem.

The President : The views put forward have covered a varied field, but it is, I think, possible to recognise a few leading considerations which constitute the essential elements in the discussion. Dr. Geary's forecast

computed two years ago for the Irish Free State indicates as an optimistic extreme the possibility of a gradual rise in population so as to reach $3\frac{1}{2}$ millions about forty years hence and $3\frac{3}{4}$ millions eighty years hence. These figures advisedly take no account of emigration, so that if we wish to use them for practical guidance we must modify them by at least our estimate of the probable effect of emigration. For obvious reasons, emigration is a factor which does not readily lend itself to forecasting if we may exclude resort to drastic State control or prohibition. Professor O'Brien foresees a continuance of emigration on a material scale, and in this he seems to be fortified by the recent statistics on the subject and by the anticipated trend of the population of Great Britain. Professor Duncan contemplates further emigration, and also warns us that even if it ceased the population might still not grow.

Broadly we are faced with two distinct categories of forces that will mould our future population. The first is emigration and the second is the complex of the rates of birth, marriage and mortality and related factors. The first, that is emigration, appears to be much more susceptible to economic influences than the second. It is to economic conditions that we must look primarily to prevent emigration from reaching an excessive height. Even here what we can do is limited by the fact that conditions prevailing elsewhere, and so beyond our control, may be the decisive inducement to emigrate.

Turning now to the factors of birth, marriage and mortality, it is improbable that any important effect on the population trend will be produced by the mortality rate, although some reduction of the rate may reasonably be expected. The possible consequences of variations as regards marriages and births are of greater moment. In view of the fewness and lateness of Irish marriages, it would seem at first sight that there is scope here for a change of practice which should have an appreciable favourable effect on the trend of population. We have to remember, however, that this problem affects the rural areas in a greater degree than the towns, and is apparently due in great measure to the fact that the ordinary farm can carry only a single household. Thus any scheme for settling families on divided land seems incapable in itself of producing important results so far as concerns growth of population of this country. There is ground for believing that more may be expected from a policy particularly directed towards an increase of the net output of agriculture with special regard to export requirements. Such a policy even if, in accordance with the usual requisite of efficiency, it means fewer actual agriculturists in proportion to agricultural output, can stimulate activities ancillary to agriculture in villages and towns and can support urbanised industry. Should that occur, the more favourable marriage rates of the town dwellers ought in time to promote a rising population. It is worth observing that such a course of agricultural development would also promote a rising standard of comfort in the country generally, and thereby help to counteract any tendency to emigration.

Mr. Lyon's plea for better statistics is in accord with current practice elsewhere. While further knowledge is always to be welcomed if means for obtaining it does not present undue difficulty, the utility of that knowledge is likely to be greater for expert investigators than for the immediate guidance of State policy. It is notable that direct efforts of the State to promote increase of population for example by family allowances have so far produced only inconsiderable results elsewhere. Such

efforts have, moreover, not been greatly dependent upon the availability of new kinds of statistical material.

The importance of close attention to the population question is undoubted. The creation of long term assets and the incurring of long term liabilities whether by the State or by local authorities or private interests needs, as Professor O'Brien has pointed out, to be related to long term movements of the population.

We should remember, too, that more is involved than variations in the aggregate number of the citizens. Changes are occurring in the age composition of the population that is the proportions according to which the whole is divided between different age groups. In all of this there is abundant scope for further study with a view to a better understanding of the trend of our demographic and economic development.