Seasonal Fluctuations in Migration : I

by

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In compliance with the Recommendation on migration statistics adopted by the 1922 Session of the International Labour Conference, almost all the Governments now communicate their figures to the International Labour Office. On the basis of these data a study of the influence of the seasons on migration movements already seems both possible and interesting — possible, because the figures available are sufficiently numerous to allow of the deduction, not perhaps of laws, but at least of certain general conclusions; interesting, because it will be found not only that there are long-period and cyclical fluctuations, and abrupt changes due to accidental factors, but also that the seasonal fluctuations are very clearly marked and have a considerable effect in determining the general character of migration movements.

This study, which deals with the five-year period 1922-1926 and is based on the analysis of 74 national tables, falls into two main parts. The first, after analysing the various factors determining the fluctuations in the volume of migration and explaining the method used, studies oversea migration, examining in turn for each hemisphere the different primary phenomena that can be distinguished. The second part, to appear in the next number of the Review, *will deal with continental migration, with a final section setting out the general conclusions that may be drawn from the study as a whole.*

THE VARIOUS CAUSES OF FLUCTUATIONS IN MIGRATION

IT WOULD appear at first sight that migration movements are the outcome of free decisions of individuals acting from purely private motives independently of any laws. The mass of apparently contradictory statistics concerning migration now available is almost overwhelming and seems to reveal little more than a confused state of chaos.

However, closer consideration shows that here, as in all social phenomena, certain definite laws are at work controlling the behaviour of individuals without their knowledge, even when they think they are actuated only by their own free will. These are ancient laws, changing with epochs, circumstances, and seasons, but still unquestionably laws. They appear with astonishing regularity whenever the circumstances remain unchanged, and can only be affected by events of great importance.

Upon further examination, a whole series of rhythmic fluctuations, a recurrent pattern, as it were, emerges from the apparent confusion, and must be carefully studied by all who wish to understand migration movements. It is on knowledge of this kind that a wise policy regarding migration can be built up, for only those who obey her laws can hope to control Nature.

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The laws of human migration movements may be studied in two ways.

They may be examined separately for every nation, trade, and race, where they will appear distorted by the undue influence of peculiarities of time, place, and circumstance. It must also be pointed out that a national study of migration is useless unless the phenomena exhibited by one nation are compared with standard phenomena, which can only be determined by comparative study.

Or they may be examined for the world as a whole, for all trades, occupations, and races, in general. From this point of view the influence of special circumstances and temporary local disturbances is negligible, or at least becomes less important on account of the compensatory effect on changing data of the law of large numbers.

It is this second method that has been adopted in the present article.

It must first be pointed out that work already done for various countries has shown the existence of certain national phenomena, which need not be discussed here. Interesting analyses have been made of the statistics for the United States, Sweden, Spain, Brazil, Argentina, and other countries, which have shown the general character of the migration movements of these countries. A particularly thorough and careful study for the United States has recently been made by Mr. Harry Jerome[1]; a glance at this book will explain the interest of national studies, particularly when they deal with a country as large as the United States, which is a whole world in itself.

But since the creation of the international organisations at Geneva, international statistics have made new and rapid progress and have provided a means of closer study of the life of the whole world. This is specially true of migration questions, with regard to which the International Labour Office has to compile and publish

[1] National Bureau of Economic Research: *Migration and Business Cycles.* New York, 1926.

statistics in accordance with a unanimous decision of the Governments represented at the International Labour Conference of 1922. In compliance with this Recommendation, the International Labour Office receives migration statistics from almost all the Governments and can thus prepare international tables with little delay.

In this article the material used is mainly the monthly statistics given in detail in the *Monthly Record of Migration*, published by the Office. About a hundred sets of monthly figures of the various forms of migration have been appearing in the *Record* during the last five years, making it possible not only to follow the seasonal evolution of migration in forty different countries, but also to compile general tables.

Before studying the influence of the seasons on migration movements, it is to be noted that this is not the only fluctuation that can be observed. It must not be forgotten that this fluctuation is superposed on another series of fluctuations frequently referred to before, the most important of which are the long-period fluctuation showing the change in the volume of migration in the course of years, and the cyclical fluctuation showing the regular succession of years of progress and years of decline.

It must also be remembered that these fluctuations are sometimes interrupted by fortuitous causes, such as wars, revolutions, or new laws, which frequently have a considerable and lasting effect on the development of migration. Long-period and cyclical fluctuations have long been known to students of migration problems. They are therefore only described in general outline in the following pages, so much being essential for understanding the importance of seasonal fluctuations.

Long-Period Fluctuations

The International Labour Office has been too recently created to enable migration movements to be studied through the course of centuries by means only of the figures collected by the Office, for a long-period fluctuation cannot be determined in a few years.

But for some time students in various countries have been collecting data in which the steady growth of migration from 1810 to 1914 is very definitely indicated.

For example, the exhaustive Swedish enquiry carried out in 1910 by Mr. G. Sundbärg[1] clearly demonstrates the development

[1] *Den Svenska och Europeiska Folkökning- och Omflyttningsstatistiken.* Stockholm, 1910.

of oversea migration from European countries. According to this author, the average annual numbers of emigrants for periods of ten years are as follows:

Period	Annual average
1821–1830	34,000
1831–1840	100,000
1841–1850	250,000
1851–1860	355,000
1861–1870	350,000
1871–1880	353,000
1881–1890	710,000
1891–1900	688,000
1901–1910	1,336,000

In consequence of wars and the resulting interruption of migration movements, the period from 1911 to 1920 was disturbed to such a degree by accidental factors that, even if it were possible to compile them, general statistics would be of little interest. The publication of any statistics was, moreover, suspended for several years in many countries. This period of ten years covers in reality three distinct periods. The first, the pre-war period (1910-1913), showed a further continuous increase in the volume of migration that may be estimated at one-third of the figures for 1901-1910. During the second period, the actual war period (1914-1918), European oversea migration movements were completely disorganised, and few statistics were published; the figures are, in any case, very low. Finally, during the third period, that immediately following the war, conditions remained much the same, for almost all the world's shipping was being used to repatriate troops from overseas who had come to fight in Europe.

Emigration can hardly be said to have begun to resume its normal character until 1920. During that year, 845,000 European emigrants were recorded. Accurate statistics are available for the period 1921-1926, compiled this time by the International Labour Office, and published at regular intervals and in greater detail than previously. But stable conditions have not yet returned, and migration currents continue to show evidence of disturbances, and it is difficult as yet to determine their general trend. Moreover, the figures for a full period of ten years are not yet available. It may be pointed out, however, that for the quinquennial period of 1921-1925, an average of only 632,000 oversea emigrants from Europe has been recorded, that is to say, less than half the pre-war figure.

It is too early to say whether these figures indicate the end of

the very marked advance in migration movements that had been observed until 1914, or only a period of stagnation or temporary decline, such as occurred so frequently in the history of migration during the nineteenth century. But what can confidently be asserted is that up to 1914 the long-period fluctuation was very definitely suggestive of a steady growth of migration, at least in so far as oversea migration from Europe is concerned.

Such is the general conclusion, for if the national elements of the statistics are considered in detail, this marked international development disappears — the wood, in fact, is hidden by the trees. Examination of the separate countries shows that at different times, different nations and races predominate in turn in the stream of migration. At one time it was the Anglo-Saxon and Scandinavian countries, then the Germans, then the Slavs, and then the Italians ; and to-day the Jewish ethnical groups undoubtedly form the most important element in this collective movement, the composition of which changes from year to year. But notwithstanding all these various deviations, the general tendency up to 1914 was definitely towards increase.

Cyclical Fluctuations

This tendency, however, is neither regular nor constant. The growth of the current does not resemble that of a mighty river becoming deeper and broader as it is joined by each new tributary. It may better be compared to a restless sea, a succession of great waves beating more and more fiercely upon the shores of the countries of immigration, landing a larger number of migrants eachtime as they advance, but ebbing to return again with still greater violence. This ebb and flow is clearly shown in Figure 1, which has been prepared from Mr. Sundbärg's statistics for oversea emigration from European countries, together with the statistics compiled by the International Labour Office, and the statistics of the Government of the United States for the total immigration into that country.

Upon referring to Mr. Sundbärg's figures for oversea emigration from European countries it will be observed that the volume of emigration increased from 1816 (20,000) to 1819 (43,000), declined to 24,000 in 1825, and reached 120,000 in 1832. Then there was a new decline until 1838 (61,000), then an increase to 320,000 in 1848 and 583,000 in 1854. This was followed by a decline until 1861 (194,000), then by a long period of stagnation, followed by a

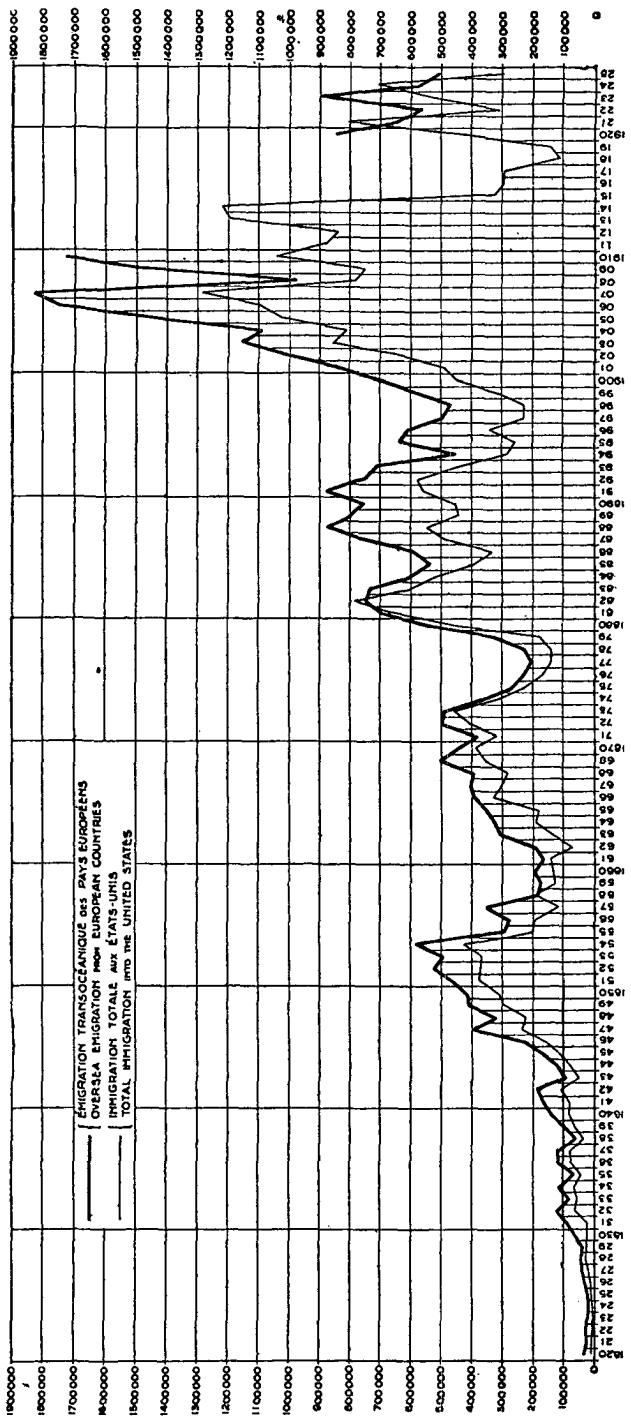


FIG. 1. OVERSEA EMIGRATION AND IMMIGRATION FROM 1820 TO 1925.

rapid increase to 751,000 in 1822, a fall to 450,000 in 1894, after which, and a further period of stagnation from 1894 to 1900, the figure was reached of 1,019,000 in 1902, and 1,746,000 in 1906. According to subsequent information collected by the Italian Emigration Department, but not included in the diagram, this figure was considerably exceeded in 1913, which was probably the record year for European oversea emigration. It is impossible to compile emigration statistics for the years of the war, but since 1921 the figures of the International Labour Office show a fresh decline with considerable fluctuations, the figure falling to 574,223 in 1924.

With regard to immigration, a very similar curve is given by the statistics for the United States, a country that always absorbed more than half the total number of European emigrants and thus controlled European emigration movements as a whole. Here and there certain differences may be observed arising from the fact that the American figures do not refer to the calendar year but to the fiscal year, which generally ends in July. The influence of immigration from American countries and from Asia must also be taken into account. But on the whole the two sets of figures represented in the diagram show a parallel development, and it may therefore be concluded from this parallelism between two similar phenomena studied by entirely different methods that on the whole the statistics upon which these results are based are reliable.

If the immigration statistics for the United States are arranged in periods of ten years, it will be seen that the difference between the maximum and minimum years in any period never falls below 75 per cent. and occasionally exceeds 80 per cent. of the maximum. This is shown by the following table of the maximum and minimum annual figures for each period of ten years.

Period	Minimum	Maximum
1820–1829	6,354	27,382
1830–1839	22,633	76,243
1840–1849	52,496	297,024
1850–1859	112,123	427,823
1860–1869	72,183	352,768
1870–1879	138,469	459,803
1880–1889	334,203	788,992
1890–1899	229,299	579,663
1900–1909	448,572	1,285,349
1910–1914	838,172	1,218,480

The cyclical fluctuation of migration movements is therefore quite definite and is entirely independent of the long-period fluctua-

tion. In the midst of a steadily increasing volume of migration periods of advance and decline are found similar to those exhibited by cycles of unemployment. Unemployment cycles and migration cycles have in fact several points of resemblance, though in different, rather than in similar, directions; for it is good rather than bad times that stimulate migration. In the latter case, however, there are many other influences at work and the comparison must not be pressed too far.

Accidental Factors

It must not be overlooked that besides the general tendency to increase and the fluctuations caused by cyclical depressions, events frequently occur in the lives of nations that interfere with the working of natural phenomena. This is particularly true of a phenomenon as sensitive to outside influences as a nation's migratory capacity.

Of these accidental factors three that have produced and continue to produce a most disturbing effect on the long-period curve for migration movements will be discussed here. They are wars, revolutions, and the effect of legislation.

The war of 1914-1918 caused the figures for emigration to the United States to fall from 1,218,000 in 1913-1914 to 110,618 in 1917-1918. The American Civil War had a similar effect, reducing immigration to the United States from 427,000 in 1854 to 72,183 in 1862, with an annual average of 144,000 for the duration of that war (1861-1865). Similarly, the revolutions of 1848 raised European emigration to the United States from 52,000 in 1843 to 427,000 in 1854. Finally, the United States Quota Law must be mentioned, which reduced oversea immigration into the United States from 572,000 in 1920 to 171,000 in 1925.

These figures have been taken from the statistics of the United States on account of the preponderating influence of this country on the migration movements of the world. Similar influences would be found at work in all other countries with much migration; they are also found in international statistics, but in a less marked degree on account of the compensatory effect on the figures for the different countries.

Seasonal Fluctuations

Besides these three great factors in the evolution of migration — the long-period movement, cyclical depressions, and accidental

disturbances — a third fluctuation must be mentioned, namely, the seasonal fluctuation, which has an equally definite tendency and an equally marked effect. Examination of the figures collected by the International Labour Office since 1922 leaves no doubt that emigration is an essentially seasonal phenomenon.

It may be that this observation is not entirely new, and that it has already been made in a general way with regard to the migration movements of certain countries; but it is impossible to get an idea of the phenomenon as a whole from this fragmentary study of the different elements that go to make up the sum total of migration. In any one country the normal course of these movements is checked and disturbed to such a degree by particular temporary and accidental factors that it is extremely difficult to deduce the existence of a general rhythmic movement from such material. It is only by eliminating the particular factors and examining the question as a whole that an accurate idea of the seasonal fluctuations of migration movements can be obtained.

But if the figures are to have any value, comparison must only be made where it is admissible, and the totals employed must be kept clear of any element of confusion. Instead of speaking of migration movements in general, it is essential to make a clear distinction between the various phenomena constituting migration movements. The numerous sets of data published regularly in the *Monthly Record of Migration* provide precisely what is wanted for this purpose.

In the first place a distinction must be made between the northern and southern hemispheres; for the seasons are reversed in these two parts of the world, and if the figures for the two hemispheres are added together, the seasonal characteristics of both disappear.

Unfortunately the International Labour Office receives very few sets of figures for the southern hemisphere, and has therefore only been able to compile two migration tables for that part of the world. The first refers to oversea immigration in the strict sense, that is to say, immigration of aliens, and contains the added totals of five national tables; the second concerns the emigration of aliens, who form the bulk of returning emigrants, and contains the added totals for four countries. Upon subtracting the number of alien immigrants from the number of alien emigrants a third figure is obtained showing the net emigration from the southern hemisphere.

For the northern hemisphere a considerably larger number of

reports are analysed in the *Monthly Record of Migration*, and four emigration phenomena and four immigration phenomena can be distinguished. For emigration these are :

(1) ordinary oversea emigration, i.e. emigration of citizens of one country going to an oversea country, for which 23 national tables have been analysed ;
(2) ordinary continental emigration, i.e. emigration of citizens of one country to another country in the same continent (6 tables) ;
(3) oversea emigration of aliens, i.e. repatriation from overseas (5 tables) ;
(4) continental emigration of aliens (repatriation) (4 tables).

For immigration, the following tables have been compiled :

(1) ordinary oversea immigration, i.e. immigration of aliens coming from an oversea country (5 tables) ;
(2) ordinary continental immigration, i.e. immigration of aliens coming from a country in the same continent (8 tables) ;
(3) immigration of nationals (repatriation) coming from an oversea country (13 tables) ;
(4) immigration of nationals (repatriation) coming from a country in the same continent (4 tables).

If in each case the figures for repatriation are subtracted from the general total, four new tables showing net migration movements can be compiled : two for oversea and continental emigration, and two for oversea and continental immigration.

There are 77 primary tables in all available, which may be presented in 15 different forms corresponding to the various types of migration movements that can at present be distinguished.

The study of these tables leads to certain interesting conclusions. Each country will be able to compare its own migration movements with the normal migration movements for the world as a whole, to see at once any similarities or differences that may occur, and test the regular beating of the pulse of its migration movements. By means of such comparison the effect of laws and administrative measures, both national and foreign, will at once become evident.

These migration tables may also be compared with certain other social phenomena of a similar nature, such as unemployment and business cycles. By observing the changes thus shown in the numbers of arrivals and departures, the composition of the labour

market may be examined more closely, and the moments determined when there is a surplus or a shortage of workers in each country. Practical results may also follow with regard to the possibility of finding successive jobs for workers as they move from country to country.

These figures also throw light upon the psychology of nations, which frequently expresses itself in the activity of migration movements, governed as these are by both economic and intellectual factors.

A knowledge of the seasonal movements of workers will also be of particular assistance in the solution of transport problems.

Finally, a great variety of general observations may be made by means of these tables with regard to the life of the worker, his needs and desires, and means of satisfying them, and the conditions of life of mankind in general.

From every point of view, therefore, the effect of seasonal influences on migration movements is of particular interest.

Statistical Methods

In order to arrive at a clear understanding of the tables that are to follow, certain difficulties experienced and the methods adopted to deal with them must be taken into account. Some of the difficulties connected with method are of a general nature.

(1) It must first be remembered that the month is a defective unit of measure. Sometimes it contains 30 days, sometimes 31, and occasionally 28 or 29; also it contains a variable number of week-ends. Differences of more than 10 per cent., and sometimes reaching 25 per cent., naturally affect the averages. In order to arrive at comparable units, the month would therefore have to be reduced to a uniform length of 30 days, as certain writers have already tried to do. But, on the other hand, this would involve substituting a theoretical figure for an actual figure, and might, perhaps, lead to still greater difficulties. In this article, therefore, the calendar month has been adhered to without modification. It is only in cases where a " daily " average is indicated that the difference in the length of the months has been taken into account, and this average has been used to calculate the divergence between the months of highest and lowest migration.

(2) For various reasons it has only been possible to use 74 national tables in the study of the ten primary migration movements

to be considered. The other tables are either incomplete or do not cover a full year, or are of such a special nature that they cannot be used to compile general tables. This is in particular the case with regard to tables for migrants in transit. The mere fact that there are 74 tables relating to ten phenomena shows how wide a field remains to be investigated. However, additional tables are being added every month. For November 1927, for example, four new tables became available. But too much importance must not be attached to this statement, as most of the important countries and of the important migration move ments are included in the 74 tables already included.

(3) The imperfect geographical distribution of the tables is perhaps of greater importance : whereas 65 tables are available for the northern hemisphere, there are only 9 for the southern hemisphere, where, however, there are considerably fewer countries, and migration movements are less frequent and less important. With regard to the distribution by continents, it will be observed that the figures refer mainly to Europe (47 tables), then to America (10), Asia (9), Oceania and Africa (4 each). It must also be remembered that statistics for direct emigration and immigration (44 tables) are more generally studied than those for returning emigrants and repatriation (30 tables). Similarly emigration (41 tables) has been examined more frequently than immigration (33 tables). It is evident that considerable progress is still to be made in this direction.

(4) The variations in the annual numbers of migrants shown in these pages can give no idea of the total volume of migration. The number of tables received from the Governments has increased rapidly (36 in 1922, 42 in 1923, 49 in 1924, 63 in 1925, 74 in 1926), and the absolute increase in these numbers shows that the collaboration in this enquiry is steadily extending. In view of the greater number of data recorded in recent years, the reader who wishes for statistical exactitude will have to make certain modifications, in such manner as may seem most suitable to him ; he will find all the necessary material for this work in the *Monthly Record of Migration.*

(5) It must not be forgotten that the monthly fluctuations mentioned are superposed on regular movements of advance and decline that are entirely independent of these monthly fluctuations. Other things being equal, the figures for December are naturally higher than those for the preceding months in periods when migration is increasing, and lower in periods of decline. Certain

modifications must be made in this connection, but they are not of great importance, for, generally speaking, migration movements in the period under observation have been comparatively stable.

(6) The 14 recapitulatory tables to be given later contain the figures that have been appearing country by country in the *Monthly Record of Migration* since 1922. In two cases there is only a quarterly figure, together with monthly figures for the other nine months; the quarterly figure has therefore been divided by three in order to have a full set of monthly figures for the year. Any error made in this way is of little importance in relation to the whole, and certainly less serious than the omission of these countries for the year in question would have been.

(7) Some countries do not yet make any clear distinction in their statistics between the emigration of " citizens of the country " and the emigration of aliens, though these are two entirely different movements, the one being true emigration and the other repatriation. In the following tables, therefore, the countries that do not make this distinction have been placed in the category to which they logically belong. This arrangement involves only a small degree of inaccuracy, for it is certain that few persons come from overseas to settle in Belgium or in Italy, and that nearly all the emigrants who leave Argentina or Australia are repatriated nationals of other countries and not true emigrants. In all other cases, the indications on the monthly tables are strictly adhered to.

(8) In order to compare the monthly fluctuations in migration movements over the quinquennial period, the method of percentages has first been applied. The column following those showing the numbers of migrants in these tables shows the ordinary percentage for each month calculated by taking 100 as the annual total. The drawback to this method is that the monthly average works out at 8.33 per cent. In addition, therefore, to this somewhat complicated figure, the monthly proportions have been calculated on the basis of 1,200 for the whole year, giving a monthly average of 100, thus making it easier to see the relative importance of the fluctuations.

(9) These calculations, on the basis of 1,200 for the year, give an index number for the quinquennial period. The monthly average for the period 1922-1926 being 100, the index number for each month shows the variation in relation to this average. This seemed to be the most suitable method to use here. It was quite impossible to base calculations on the first month of 1922, on account of the rapid increase (on an average from 36 to 74) in the

number of tables used. Nor could the figures for January be used as a basis for an index number, owing to the variable and rather special nature of migration movements in this month in every year; the results thus obtained might, in certain cases, have been misleading. The method chosen seems thus to be the most accurate. Being based on the figures for five consecutive years, it may also be used to measure the extent of future monthly fluctuations in migration movements.

In the following analysis no reference is made to any phenomenon that is special to one particular country. The reader who is interested in the situation of any one country will find in the *Monthly Record of Migration* all the material required to make his own calculations for the country in question. These calculations and the conclusions to be drawn from them cannot be given in this article, but will be found to be of considerable interest.

It must again be pointed out that the recapitulatory tables given in these pages apply to a number of countries varying from 4 to 23 according to the amount of information received by the International Labour Office.

OVERSEA MIGRATION

The various recapitulatory tables will now be considered.

Oversea Emigration of Nationals

This constitutes emigration in its true sense, being emigration of persons leaving their native country to settle overseas. It is also the form of emigration that receives particular attention from the Governments, who send 23 tables every month to the International Labour Office. In this way 2,424,150 emigrants have been counted during the five years under consideration. Some of these emigrants go to the northern hemisphere and some to the southern hemisphere; up to the present, however, it has been impossible to make this distinction in the tables, and the conclusions to be drawn from them are liable to be somewhat complicated by this fact.

The following table gives the figures for this form of emigration for each year in the period 1922-1926 and for this quinquennial period as a whole.

TABLE I. OVERSEA EMIGRATION OF NATIONALS FROM COUNTRIES IN THE NORTHERN HEMISPHERE

Month	1922[1]	1923[1]	1924[2]	1925[3]	1926[4]	Total[4]	Percentage	Index number
Jan.	15,317	30,161	30,783	39,460	45,521	161,242	6.6	79.2
Feb.	12,456	33,397	30,746	35,180	47,245	159,024	6.5	78.0
March	17,870	37,728	33,649	45,212	57,028	191,487	7.9	94.8
April	16,887	39,172	32,779	46,927	61,166	196,931	8.1	97.2
May	18,994	39,227	27,936	44,782	47,397	178,336	7.4	88.8
June	24,845	44,074	21,365	34,391	39,722	164,397	6.8	81.6
July	23,928	44,252	16,457	36,304	43,045	163,986	6.8	81.6
Aug.	41,477	53,915	21,747	36,007	47,416	200,562	8.3	99.6
Sept.	44,767	60,646	34,962	49,655	57,583	247,613	10.2	122.4
Oct.	51,384	76,058	45,885	61,263	67,823	302,413	12.5	150.0
Nov.	52,186	68,945	43,124	51,202	56,557	272,014	11.2	134.4
Dec.	32,412	46,038	31,062	33,332	43,301	186,145	7.7	92.4
Total	352,523	573,613	370,495	513,715	613,804	2,424,150	100	1,200

[1] 15 countries included: Austria, Belgium, Czechoslovakia, Denmark, Finland, Germany, Italy, Japan, Norway, Poland, Rumania, Serb-Croat-Slovene Kingdom, Spain, Sweden, Switzerland.
[2] 16 countries: Austria, Belgium, Czechoslovakia, Denmark, Finland, Germany, Hungary, Irish Free State, Italy, Japan, Norway, Poland, Serb-Croat-Slovene Kingdom, Spain, Sweden, Switzerland.
[3] 18 countries: Austria, Belgium, Czechoslovakia, Denmark, Finland, Germany, Great Britain, Irish Free State, Italy, Japan, Norway, Palestine, Poland, Portugal, Serb-Croat-Slovene Kingdom, Spain, Sweden, Switzerland.
[4] 23 countries: Austria, Belgium, Czechoslovakia, Danzig, Denmark, Finland, Germany, Great Britain, Hungary, India, Irish Free State, Italy, Japan, Netherlands, Norway, Palestine, Poland, Portugal, Rumania, Serb-Croat-Slovene Kingdom, Spain, Sweden, Switzerland.

The monthly fluctuations for each of the 60 months examined can also be shown in diagrammatic form (see Figure 2).

It must not be forgotten that it is only the fluctuations in the course of the year that must be considered, the apparent increase of migration being due to the larger number of data used. The emigration of the nationals of the country is shown in the diagram by the upper curve. For purposes of comparison the net emigration is also shown. This will be examined later; it is obtained by subtracting the number of repatriated persons (shown in black between the two curves) from the total number of emigrants. Thus in Figure 2 the upper curve shows the total emigration (gross), the black part shows the immigration of nationals (repatriation), and the shaded part shows the net emigration.

Unfortunately the conclusions to be drawn from table I are not so definite as those to be drawn from the tables given later. This is due to the fact that during almost the whole of the period in question the formula for the application of the Quota Law in the United States was continually changing, which had a considerable effect on the natural fluctuations of migration. This influence is so contradictory that in his great work on migration cycles in the

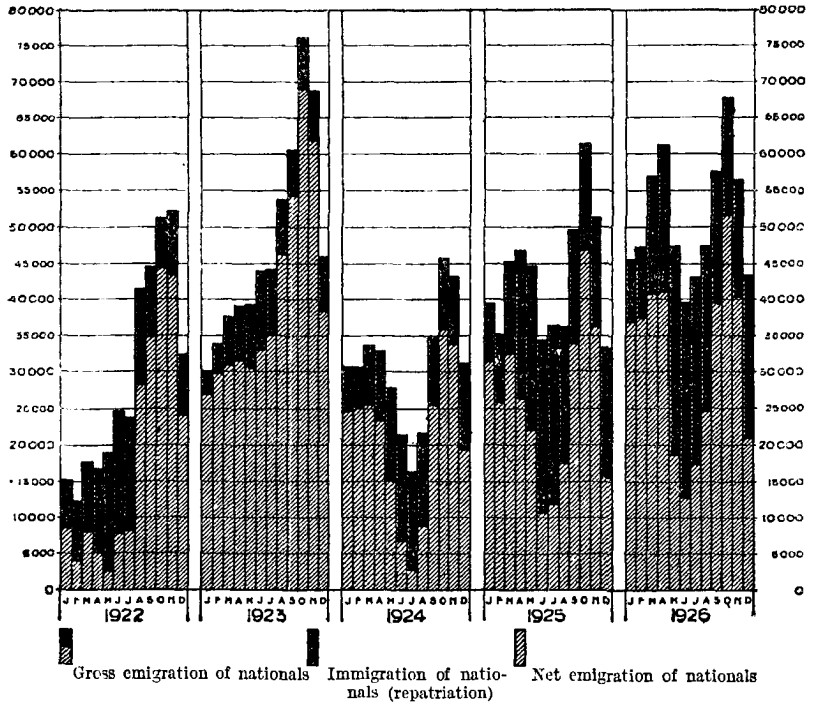


FIG. 2. OVERSEA EMIGRATION FROM THE NORTHERN HEMISPHERE: EMIGRATION AND REPATRIATION OF NATIONALS.

United States, published in 1926, Mr. Harry Jerome felt obliged to disregard the post-war period entirely in so far as seasonal emigration is concerned, and to limit his investigations to the years preceding 1914. The effect of the Quota Law of the United States is less marked in the recapitulatory tables given here, but it has none the less a very decided influence and constitutes one of the " accidental factors " that must be taken into account in a study of the fluctuations of migration movements.

In Figure 2 the upper curve relating to the emigration of nationals shows that the maximum migration occurs regularly in October, except in 1922, when it was reached in November, though the figures were very little higher than those for October. This was due to the simultaneous effect of two different causes. First, there was the effect of the Quota Law of the United States, which, especially in the early years of the period, encouraged emigration in the second half of the year. But besides this artificial factor, a natural influence was at work having a similar effect. Since the spring begins at this time in the southern hemisphere, large numbers of agricultural labourers arrive and immigration is always

very high at this period. At present a larger volume of oversea emigration is directed towards South America than towards the United States. Hence oversea emigration from the northern hemisphere, which is almost exclusively European (21 countries out of 23), reaches its maximum in October.

So much cannot be said of the minimum, which under the influence of opposing factors showed great instability during the period in question. For this quinquennial period and for 1922 the minimum occurs in February (the shortest month in the year), while it is found in January for 1923, in July for 1924, in December for 1925, and in June for 1926. There is no indication here of a stable phenomenon, the effect of normal causes being overcome by that of accidental factors.

On the other hand, even in this disturbed period certain constant phenomena recur every year. For example, oversea emigration always increases in March, September, and October, and always declines in November and December. The tendencies in the other months differ from year to year, but broadly speaking there is an advance in April and August and a decline in February, May, June, and July.

On an average, 1,130 emigrants left daily in February and 1,951 in October, or a ratio of 100 to 178. At first sight this difference appears sufficiently large to place emigration definitely among seasonal phenomena. But, as will be shown later, the difference is in reality exceptionally reduced by the action of contradictory factors, as is shown by the more detailed tables for immigration, in which it has been possible to distinguish between the northern and southern hemispheres. The divergence, represented by the figure of 178 per cent. for oversea emigration, amounts to 264 per cent. for immigration in each hemisphere, but is only 197 per cent. if the figures for immigration in both hemispheres are added together.

Oversea Immigration of Aliens

The oversea emigration of nationals of a country has for its correlative the oversea immigration of aliens, i.e. immigration in its true sense whereby new arrivals settle in an oversea country.

The figures of 1,764,478 immigrants arriving in the northern hemisphere and 953,098 in the southern hemisphere, or a total of 2,717,576, correspond to the figure of 2,424,150 departures mentioned above. The excess of immigration is perhaps due to the fact

that the statistics are more complete and that the International Labour Office is in closer touch with the countries of immigration, but it is undoubtedly, at least to some extent, due to the fact that immigration of aliens includes not only the immigration of nationals coming from their native country, but also that of a certain number of aliens (impossible to determine at present) coming from countries other than their own (indirect emigration, emigration in transit, emigration of refugees and aliens who are not returning to their native country).

There are a sufficient number (5) of tables for the southern hemisphere to enable the two hemispheres to be examined separately.

Oversea Immigration of Aliens in the Northern Hemisphere

The main countries considered here are the United States, Canada, and Palestine.

TABLE II. OVERSEA IMMIGRATION OF ALIENS IN THE NORTHERN HEMISPHERE

Month	1922[1]	1923[1]	1924[2]	1925[3]	1926[4]	Total[3]	Percentage	Index number
Jan.	13,146	19,500	16,924	13,214	13,337	76,121	4.3	51.6
Feb.	7,585	19,774	14,628	15,975	15,355	73,317	4.2	50.4
March	12,624	31,609	21,315	25,839	31,219	122,606	6.9	82.8
April	15,044	36,269	27,723	27,523	35,036	141,595	8.0	96.0
May	24,851	41,257	26,042	31,209	37,220	160,579	9.1	109.2
June	20,632	28,362	24,936	24,412	23,196	121,538	6.9	82.8
July	37,208	72,360	11,305	19,429	24,154	164,456	9.3	111.6
Aug.	37,362	86,125	21,744	24,022	27,998	197,251	11.2	134.4
Sept.	44,087	76,707	22,897	23,601	29,008	196,300	11.1	133.2
Oct.	46,677	76,369	21,061	27,355	29,318	200,780	11.4	136.8
Nov.	42,287	77,171	20,203	23,461	25,936	189,058	10.7	128.4
Dec.	26,538	39,565	16,932	18,652	19,190	120,877	6.9	82.8
Total	328,041	605,068	245,710	274,692	310,967	1,764,478	100	1,200

[1] 2 countries included: Canada, United States.
[2] 3 countries: Canada, Irish Free State, United States.
[3] 5 countries: Canada, Irish Free State, Palestine, Serb-Croat-Slovene Kingdom, United States.
[4] 4 countries: Canada, Irish Free State, Palestine, United States.

In order to illustrate this table, Figure 3 has been prepared on the same plan as the preceding diagram; it shows at the same time the curves for gross emigration of aliens, for immigration (repatriation), and for net emigration, which will be considered later.

These figures also show the disturbing influence of the Quota

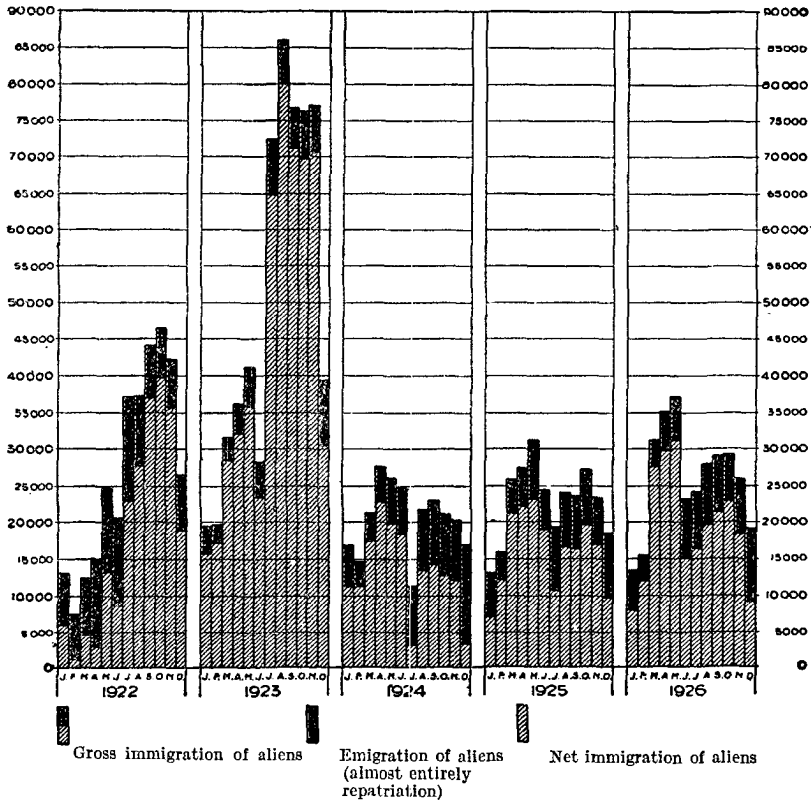


FIG. 3. OVERSEA IMMIGRATION IN THE NORTHERN HEMISPHERE: IMMIGRATION AND EMIGRATION (REPATRIATION) OF ALIENS.

Law of the United States. Though the maximum figure occurs in October for oversea immigration as a whole over the entire period, as is the case for emigration, this maximum is the resultant of very divergent data. In the various years the maximum occurs in turn in October, November, April, and in the last two years in May. The regulating influence of Canada, which is beginning to take the place of the United States as the important country of immigration in the northern hemisphere, is very evident in this large volume of spring immigration.

As to the minimum, it occurs, as before, in February for the period as a whole and in January and February in the separate years, except in 1924, when the Quota Law of the United States had a particularly disturbing effect.

If the figure for each month is compared with that of the preceding month, it will be found that the number of immigrants always increases in March, April, and August, and decreases in January,

February, and December, and that for the other six months the general tendency, although varying in different years, is on the whole towards an increase in May, July, and October, and a decrease in February, September, and November.

If the seasonal effect is calculated on the basis of daily immigration, it will be seen that the figures for February are no longer the lowest. The average for February was 520, while that for January was only 491, and that for the record month, October, was 1,297. Thus the figures for the two months of lowest and highest immigration are in the ratio of 100 to 264, showing a considerably greater difference than that found for emigration from the northern hemisphere.

Oversea Immigration of Aliens in the Southern Hemisphere

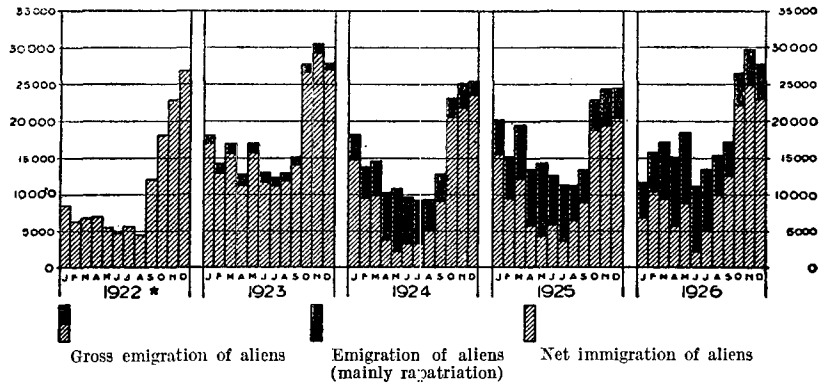
The following table, dealing with 953,098 recorded immigrants, can be given for this form of immigration.

TABLE III. OVERSEA IMMIGRATION OF ALIENS IN THE SOUTHERN HEMISPHERE

Month	1922[1]	1923[2]	1924[3]	1925[3]	1926[4]	Total[4]	Percentage	Index number
Jan.	8,602	13,148	18,261	20,083	11,645	76,739	8.0	96.0
Feb.	6,388	14,297	13,771	15,084	15,760	65,300	6.9	82.8
March	6,841	17,063	14,613	19,657	17,209	75,383	7.9	94.8
April	7,051	12,716	10,205	13,367	15,039	58,378	6.1	73.2
May	5,457	17,218	10,882	14,431	18,401	66,389	7.0	84.0
June	4,825	12,999	9,804	12,680	11,007	51,315	5.4	64.8
July	5,747	12,243	9,251	11,338	13,413	51,992	5.5	66.0
Aug.	4,511	12,965	9,438	11,132	15,234	53,280	5.6	67.2
Sept.	12,100	15,056	12,785	13,287	17,221	70,449	7.4	88.8
Oct.	18,107	27,963	23,082	22,911	26,536	118,599	12.4	148.8
Nov.	22,992	30,502	25,010	24,455	29,859	132,818	13.9	166.8
Dec.	26,843	27,806	25,296	24,550	27,961	132,456	13.9	166.8
Total	129,464	213,976	182,398	202,975	219,285	953,098	100	1,200

[1] 2 countries included: Argentina, Paraguay.
[2] 4 countries: Argentina, New Zealand, Paraguay, South Africa.
[3] 4 countries: Argentina, Australia, New Zealand, South Africa.
[4] 5 countries: Argentina, Australia, New Zealand, Paraguay, South Africa.

Figure 4 has been prepared from these figures in the same way as the two preceding diagrams; it also shows the repatriation curve and the curve of net immigration of aliens in the southern hemisphere.



* Figures for emigration in 1922 are not available.

FIG. 4. OVERSEA IMMIGRATION IN THE SOUTHERN HEMISPHERE: IMMIGRATION AND EMIGRATION (REPATRIATION) OF ALIENS.

From the above diagram it will be seen that the "accidental factors" that disturbed immigration to such an extent in the northern hemisphere have not been at work here, and from the seasonal point of view the movement is remarkably regular and constant. This does not mean, however, that the figures for immigration in the southern hemisphere are entirely free from the influence of the decline in migration towards the United States, but that this influence is felt only after a considerable period, and has no effect upon the seasonal fluctuations.

Here immigration shows a high maximum during the spring of the southern hemisphere (October, November, December) and falls to a minimum in the winter (June, July, August). If the curve for the five years is examined in detail, a surprising parallelism will be found. In every case immigration falls to a minimum in June, July, and August, and begins to increase rapidly in September, continuing more and more rapidly in October and November, reaches its maximum in December, falls rapidly in January, and, though fluctuating slightly, on the whole continues to fall, reaching its minimum in June.

It might be supposed at first sight that the amplitude of the seasonal fluctuations would on the whole be greater than for the northern hemisphere in view of the more agricultural character of the southern hemisphere. On the contrary, it will be found to be identical.

With regard to the average daily immigration, the true minimum occurs in July, with 335 immigrants, and the maximum in Novem-

ber, with 885, or a difference represented by the ratio of 100 to 264, and thus identical with that for the northern hemisphere. Some conclusions as to the elasticity of migration movements may perhaps be drawn from the identity of these figures.

Oversea Repatriation

In order to understand the character of migration movements, it is not sufficient to examine the departures of nationals and the arrivals of aliens. Return movements must also be studied.

Up to the present these return movements have been less generally investigated than the direct movements. In order to understand the meaning of the figures that are to follow, some allowance must be made for the fact that fewer statistics are available, at least in so far as return movements from overseas are concerned.

The recorded number of departures of repatriated persons reached a total of 646,113 (421,953 for the northern hemisphere and 224,160 for the southern hemisphere), and the total number of arrivals was 778,146. There is a sufficient similarity between these totals, but they are made up of different elements.

The phenomenon of repatriation will be examined from two points of view, that of the departure of aliens and that of the return of nationals to their native country.

It may be pointed out that though the return of nationals is undoubtedly repatriation, the emigration of aliens is not always so, for, besides a majority of persons who are returning to their native country, there are always a larger or smaller number of former immigrants who are leaving for another country but are not returning home.

Emigration of Aliens

As has been shown, this phenomenon can be studied for five countries of the northern hemisphere and five of the southern hemisphere; in the two cases repatriation movements are affected by entirely different seasonal influences.

(a) *Oversea Emigration of Aliens in the Northern Hemisphere.*

The following table can be given for this form of emigration. The same figures were used in the black part of Figure 3.

TABLE IV. OVERSEA EMIGRATION OF ALIENS IN THE NORTHERN HEMISPHERE

Month	1922[1]	1923[1]	1924[1]	1925[2]	1926[3]	Total[3]	Percentage	Index number
Jan.	7,085	3,777	5,485	6,007	5,313	27,667	6.5	78.0
Feb.	6,558	2,459	3,374	3,840	3,482	19,713	4.7	56.4
March	7,865	3,089	3,957	4,813	3,763	23,487	5.6	67.2
April	12,208	4,171	4,987	5,309	5,283	31,958	7.6	91.2
May	11,410	5,363	6,291	8,179	6,030	37,273	8.8	105.6
June	11,832	4,985	6,444	5,596	8,109	36,966	8.8	105.6
July	14,214	7,667	8,178	8,764	7,857	46,680	11.0	132.0
Aug.	9,954	6,073	8,292	7,633	8,429	40,381	9.6	115.2
Sept.	7,095	5,570	8,899	7,254	7,693	36,511	8.7	104.4
Oct.	6,715	6,762	8,482	7,745	6,530	36,234	8.6	103.2
Nov.	6,553	6,552	8,238	6,693	7,603	35,639	8.4	100.8
Dec.	7,640	9,100	13,845	8,854	10,005	49,444	11.7	140.4
Total	109,129	65,568	86,472	80,687	80,097	421,953	100	1,200

[1] 1 country included: United States.
[2] 4 countries: Irish Free State, Palestine, Serb-Croat-Slovene Kingdom, United States.
[3] 5 countries: Irish Free State, Germany, Palestine, Serb-Croat-Slovene Kingdom, United States.

Although the return of persons to their native country is unaffected by laws such as the Quota Law, it has been to some extent influenced by post-war conditions. Consequently the figures for 1922 are particularly high, and differ considerably from those for the following years. But from 1923 onwards the minimum for emigration, which was in November for 1922, remained firmly in February throughout the rest of the quinquennial period under observation. Similarly the maximum, which was in July in 1922, was in 1923 already approaching its normal point of equilibrium, December, which it reached in 1924 and has remained at ever since. It would seem that the approach of Christmas and the New Year, which are traditionally celebrated in the home, have a distinct sentimental influence on migrants, urging them to return to their own country and friends.

If the figures are examined month by month it will be seen that there is always an increase in the number of returns in March, April, and December, and always a decrease in January and February, while in most years there is a tendency to increase in May and July and to decrease in the other months (June, August, September, and October).

The daily average of repatriation works out at 140 departures in February and 319 in December, a difference represented by the ratio of 100 to 226, or slightly less than that for oversea emigration but higher than that for immigration in the northern hemisphere.

(b) *Oversea Emigration of Aliens in the Southern Hemisphere.*

Oversea emigration of aliens from countries in the southern hemisphere is shown in the following table. The same figures were also used in Figure 4.

TABLE V. OVERSEA EMIGRATION OF ALIENS IN THE SOUTHERN HEMISPHERE[1]

Month	1923[2]	1924[3]	1925[4]	1926[4]	Total[4]	Percentage	Index number
Jan.	1,091	3,631	4,850	4,898	14,470	6.5	78.0
Feb.	1,322	4,319	5,714	5,664	17,019	7.6	91.2
March	1,415	4,797	7,566	7,939	21,717	9.7	116.4
April	1,481	6,776	7,761	9,407	25,425	11.3	135.6
May	1,421	8,697	10,078	9,703	29,899	13.3	159.6
June	1,260	6,479	6,829	9,064	23,632	10.5	126.0
July	1,107	6,079	7,813	8,613	23,612	10.5	126.0
Aug.	1,067	4,381	4,947	5,403	15,798	7.1	85.2
Sept.	1,117	3,793	4,500	4,751	14,161	6.3	75.6
Oct.	1,025	2,654	4,091	4,478	12,248	5.5	66.0
Nov.	1,336	3,272	5,004	4,752	14,364	6.4	76.8
Dec.	863	1,977	4,076	4,899	11,815	5.3	63.6
Total	14,505	56,855	73,229	79,571	224,160	100	1,200

[1] No figures for 1922.
[2] 2 countries included: New Zealand, South Africa.
[3] 3 countries: Argentina, New Zealand, South Africa.
[4] 4 countries: Argentina, Australia, New Zealand, South Africa.

It was only in 1923 that the International Labour Office began to receive information under this heading, so that this table covers only four years, instead of five, as do the others.

It will be seen that here also the development of the return movement has not been interfered with in any way, and that repatriation, which is almost always towards a country in the northern hemisphere, follows an opposite course in the southern hemisphere to that of repatriation from the northern hemisphere. In the southern hemisphere the lowest figures are in December and the highest in May. Between these two extremes the movement increases and decreases continuously, with none of those sudden changes or slight ups and downs that occur in most of the other migration statistics. The only exception to this almost perfect regularity is a slight increase in November, apparently due to the very general desire of migrants to spend the end of the year in their native country.

The figures vary from a minimum of 95 daily departures in

December to a maximum of 240 in May, a difference represented by the ratio of 100 to 253, which is greater than that for the northern hemisphere. In this case the effect of seasonal influences is more marked.

(c) *Oversea Immigration of Nationals in the Northern Hemisphere.*

The following table deals with repatriation from the point of view of the mother-country, to which a certain number of its nationals are returning. The same figures were used in Figure 2.

TABLE VI. OVERSEA IMMIGRATION OF NATIONALS IN THE NORTHERN HEMISPHERE

Month	1922[1]	1923[2]	1924[3]	1925[4]	1926[5]	Total[6]	Percentage	Index number
Jan.	6,792	3,297	6,022	8,096	8,891	33,098	4.3	51.6
Feb.	8,498	4,033	5,502	9,390	9,842	37,265	4.8	57.6
March	9,800	6,825	8,150	12,721	16,464	53,960	6.9	82.8
April	11,481	7,520	9,537	20,311	20,244	69,093	8.9	106.8
May	16,438	8,911	12,542	22,542	28,717	89,150	11.5	138.0
June	16,994	10,914	14,929	23,731	26,887	93,455	12.0	144.0
July	15,670	9,137	13,887	24,467	25,499	88,660	11.4	136.8
Aug.	12,969	7,674	12,819	18,790	22,643	74,895	9.6	115.2
Sept.	9,470	6,259	9,370	15,802	18,156	59,057	7.6	91.2
Oct.	6,968	7,096	9,931	14,831	16,318	55,144	7.1	85.2
Nov.	8,714	6,927	9,331	15,108	16,152	56,232	7.2	86.4
Dec.	8,278	7,727	11,883	17,889	22,360	63,137	8.7	104.4
Total	132,072	86,320	123,903	203,678	232,173	778,146	100	1,200

[1] 6 countries included: Belgium, Italy, Japan, Poland, Rumania, Spain.
[2] 6 countries: Belgium, Czechoslovakia, Italy, Japan, Rumania, Spain.
[3] 8 countries: Belgium, Czechoslovakia, Hungary, Irish Free State, Italy, Japan, Rumania, Spain.
[4] 11 countries: Belgium, Czechoslovakia, Great Britain, Hungary, Irish Free State, Italy, Japan, Poland, Portugal, Serb-Croat-Slovene Kingdom, Spain.
[5] 12 countries: Belgium, Czechoslovakia, Germany, Great Britain, Hungary, Irish Free State, Italy, Japan, Poland, Portugal, Rumania, Spain.
[6] 13 countries: Belgium, Czechoslovakia, Germany, Great Britain, Hungary, Irish Free State, Italy, Japan, Poland, Portugal, Rumania, Serb-Croat-Slovene Kingdom, Spain.

In this case, again, repatriation shows very regular seasonal fluctuations. The minimum immigration (or repatriation) is in January, when travelling is unpleasant and the desire to migrate appears to become torpid. Immigration in January is considerably less even than in the short month of February, when migrants begin to think of seeking new employment. The maximum, on the contrary, is reached in June, sometimes a little earlier, in May, or a little later, in July, but always with a marked predominance of these three months of early summer.

The daily number of returns to the native country does not exceed 213 in January, whereas it reaches 623 in June, or a ratio of 100 to 292, which is a greater divergence than any of the others found for oversea migration. This great difference is due more to the smaller number of migrants returning home in the winter than to an increase in the number returning in the summer.

Except for the month of December, when the approaching holiday season strengthens the wish to return, the movement increases from month to month from the minimum in January to the maximum in June, when it begins to fall off again. March, April, and May always show an increase, and August and September always show a decrease, on the preceding month.

Net Total of Oversea Migration

Up to the present gross figures for emigration, immigration and repatriation (departures and arrivals) have been considered. The six preceding tables give certain definite information concerning the effect of seasonal influences on migration phenomena. There is however one further and essential figure to be deduced from these tables, which is of particular interest to Governments, namely, the amount of net emigration, i.e. the number of emigrants who depart or arrive definitively, the number of those who are returning being subtracted from the gross total. This is a very important item for the study of the demographic effects of migration movements. Table VII contains the figures needed for this purpose.

Table VII does not give separate annual migration figures but only the totals for the whole quinquennial period. It thus gives a more accurate idea of what has happened, because the arrivals and departures for the same year do not generally include the same persons, and the true magnitude of the net volume of migration can only be estimated over a fairly long period, owing to the very marked influence on it of unemployment cycles.

This table shows the net volume of migration from two different aspects, that of emigration and that of immigration. These two phenomena correspond to each other, but are studied by means of entirely distinct data. In the table three sets of figures are given for immigration : those of net immigration in the northern hemisphere, those of net immigration in the southern hemisphere, and, lastly, those of total net immigration, which may be compared with the figures of total net emigration.

TABLE VII. GENERAL TOTALS OF OVERSEA MIGRATION FOR THE QUINQUENNIAL PERIOD 1922-1926

Month	Emigration				Immigration											
	Northern hemisphere				Northern hemisphere				Southern hemisphere				Total			
	Departures of nationals	Immigration of nationals (repatriation)	Net emigration	Index number	Immigration of aliens	Emigration of aliens	Net immigration	Index number	Immigration of aliens	Emigration of aliens	Net immigration	Index number	Immigration of aliens	Emigration of aliens	Net immigration	Index number
Jan.	161,242	33,098	128,144	93.4	76,121	27,667	48,454	43.3	76,739	14,470	62,269	102.5	152,860	42,137	110,723	64.1
Feb.	159,024	37,265	121,759	88.7	73,317	19,713	53,604	47.9	65,300	17,019	48,281	79.5	138,617	36,732	101,885	59.0
March	191,487	53,960	137,527	100.3	122,606	23,487	99,119	88.6	75,383	21,717	53,666	88.3	197,989	45,204	152,785	88.5
April	196,931	69,093	127,838	93.2	141,595	31,958	109,637	98.0	58,378	25,425	32,953	54.2	199,973	57,383	142,590	82.6
May	178,336	89,150	89,186	65.0	160,579	37,273	123,306	110.2	66,389	29,899	36,490	60.1	226,968	67,172	159,796	92.6
June	164,397	93,455	70,942	51.7	121,538	36,966	84,572	75.6	51,315	23,632	27,683	45.6	172,853	60,598	112,255	65.0
July	163,986	88,660	75,326	55.0	164,456	46,680	117,776	105.3	51,992	23,612	28,380	46.7	216,448	70,292	146,156	84.7
Aug.	200,562	74,895	125,667	91.6	197,251	40,381	156,870	140.3	53,280	15,798	37,482	61.7	250,531	56,179	194,352	112.6
Sept.	247,613	59,057	188,556	137.5	196,300	36,511	159,789	142.8	70,449	14,161	56,288	92.7	266,749	50,672	216,077	125.2
Oct.	302,413	55,144	247,269	180.3	200,780	36,234	164,546	147.1	118,599	12,248	106,351	175.1	319,379	48,482	270,897	156.9
Nov.	272,014	56,232	215,782	157.3	189,058	35,639	153,419	137.1	132,818	14,364	118,454	195.0	321,876	50,003	271,873	157.5
Dec.	186,145	68,137	118,008	86.0	120,877	49,444	71,433	63.8	132,456	11,815	120,641	198.6	253,333	61,259	192,074	111.3
Total	2,424,150	778,146	1,646,004	1,200	1,764,478	421,953	1,342,525	1,200	953,098	224,160	728,938	1,200	2,717,576	646,113	2,071,463	1,200
Number of countries	23	13	23	—	5	5	6	—	5	4	5	—	10	9	11	—

The seasonal movement of each of these phenomena can be followed in Figures 2, 3, and 4, in which both the gross and net figures for each type of migration are given.

When studying this table the fact that it does not contain full figures for the world as a whole must be accepted as unavoidable. Less information is available for repatriation than for direct migration, and therefore the figures subtracted do not accurately represent the total volume of repatriation. The same countries do not appear in every table. Further, the figures for departures and for arrivals do not apply to exactly the same persons ; for many return who had arrived before the beginning of the period under consideration, and many of those who arrive during this period will not return until after it has expired.

However, without forcing the conclusions that may be drawn from it, table VII undoubtedly presents considerable interest.

One result that may be deduced from the table, which will also be found to hold for continental migration, is that the net volume of migration is much more sensitive to seasonal influences than the gross volume. Maxima and minima of arrivals and departures occur at different periods of the year and, far from balancing each other, they considerably accentuate any divergency.

As a general conclusion it will be found that for 2,424,150 nationals leaving the northern hemisphere 778,146 are recorded as returning or there is a net emigration of 1,646,004. This figure may be theoretically regarded as representing the number of emigrants lost to their native country during the quinquennial period.

On examining the fluctuations in the monthly figures, it will be seen that the net emigration was lowest in June and reached its maximum in October. The general tendency resulting from the combination of so many and varied elements is rather irregular and varies in the different years, but on the whole net emigration tends to be highest in the autumn (September, October, and November) and to fall at the beginning of the summer (May, June, and July).

The curves for gross and net emigration (Figure 2) do not differ widely from each other. In both the maximum occurs in October, but the variations in the curve for net emigration are greater in proportion. The minima occur in different months, for gross emigration in February, but in June for net emigration. This difference is due to the very large number of returns in June (three times as many as in January), whereas the figures for emigration remain almost unchanged.

Net oversea emigration works out at 470 departures daily in

June and 1,593 in October, or a difference represented by the ratio of 100 to 348, which is greater than any of the differences found above for gross emigration.

A similar result will be found for the effect of seasonal influences on immigration, but in this case a distinction can and must be made between the figures for the two hemispheres, since these show very different tendencies.

In the northern hemisphere, the gross number of immigrants, 1,764,478, falls to 1,342,525 if the number of alien emigrants is subtracted. For the five years as a whole the net total of immigrants (cf. Figure 3 and table VII) regularly increases from January to October (except for the brusque interruption in June and July, due to the marked effect of the Quota Law of the United States), and the rapid decrease only takes place during the last three months of the year. The net daily total of arrivals was 316 in January and 1,058 in October, or a difference represented by the ratio of 100 to 355, and therefore similar to that found for total net emigration.

With regard to oversea immigration in the southern hemisphere, it will be seen that the total immigration recorded is the resultant of 953,098 aliens arriving and 224,160 aliens repatriated. The minimum net immigration occurs in June, with 187 immigrants daily, and the maximum in November, with 787. These figures show a divergence represented by the ratio of 100 to 421, which is higher than any of those yet found. This shows that seasonal influences have a particularly marked effect on net immigration in the southern hemisphere.

The general movement of these two phenomena, net immigration and gross immigration, is very similar.

If the net immigration in both hemispheres together is examined, it will be seen that the very decided effect of seasonal influences that has been observed is considerably weakened. The index of divergence for total net immigration is now only 251, whereas it was found to be 335 for the northern hemisphere and 421 for the southern hemisphere. This divergence is even less than that found for net emigration (348).

(*To be continued.*)