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John Gretton

STAPLEFORD

ENGLAND'S RECENT PROGRESS

AN INVESTIGATION OF THE STATISTICS OF

MIGRATIONS, MORTALITY, &c.

IN THE TWENTY YEARS FROM 1881 TO 1901

AS INDICATING TENDENCIES TOWARDS THE

GROWTH OR DECAY OF PARTICULAR
COMMUNITIES

BY

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P R E F A C E .

It seems right that I should explain how I came to take upon myself the responsibility of submitting these figures to the public.

As far back as 1857 I was occupied in studying the Census Tables then available, and my Essays on the Census of Occupations, the first of which was read before the Statistical Society in June 1858, were printed in 1860. The doctrine as to classification which I then advocated was not without influence over the subsequent publications of the Census Office.

About the same time I was engaged upon the population statistics of Lancashire and Cheshire, and my papers on this subject, written jointly with the late Mr. John Towne Danson, were printed in the Transactions of the Historic Society (Liverpool) in 1857 and succeeding years.

I again dealt with the subject of the statistics of English Occupations in a paper read before the same Society in December 1868, and in a further paper read in March 1869 I considered the statistics of births, deaths and migrations.

In a paper on the movement of population in certain rural counties, where population upon the whole was almost stationary (Statistical Journal, 1879-80), I entered upon the subject of migrations at particular ages.

A paper read before the Manchester Statistical Society "On Forty Years' Industrial Changes in England and Wales" (9th March, 1898), gave a summary of the Census figures as to Occupation in 1851 and 1891.

The general growth and distribution of Population in England and Wales in the ninety years 1801-1891 was the subject of a paper (Statistical Journal, 1900, pp. 527-589), which gained an award of the Guy silver medal.

These are not the only statistical papers of mine bearing on subjects akin to those treated in this book, which have appeared in the Statistical Journal and elsewhere during the last fifty years, and I have, therefore, had ample time and opportunity to consider the questions dealt with in my present work, and have entered upon it partly for my own information, though it would not have reached its present dimensions had I not formed the opinion that the results to be attained were of great interest and value to the public.

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ERRATUM.

Page 28, last line but one, for Appendix G, read Appendix D.

DIAGRAMS.

THE following pages contain two sets of "graphs," one relating to migrations at several ages, and the other to mortality at successive periods of life, or rather, to the losses per cent. experienced by the several successive generations in either of the decennial periods 1881-1890 and 1891-1900. Also, a single diagram of another sort.

MIGRATIONS.—These diagrams will be found on pages ix.-xvi.

They represent the rates per cent. of gain or loss at ages 15-20 to 50-55 of either sex in each decennial period. The main point is to note the resemblance of the two graphs representing successive decennial periods.

MORTALITY.—These diagrams comprise:—

First, two on page xvii., showing the index numbers at several ages of the national death-losses of either sex in the two decenniums.

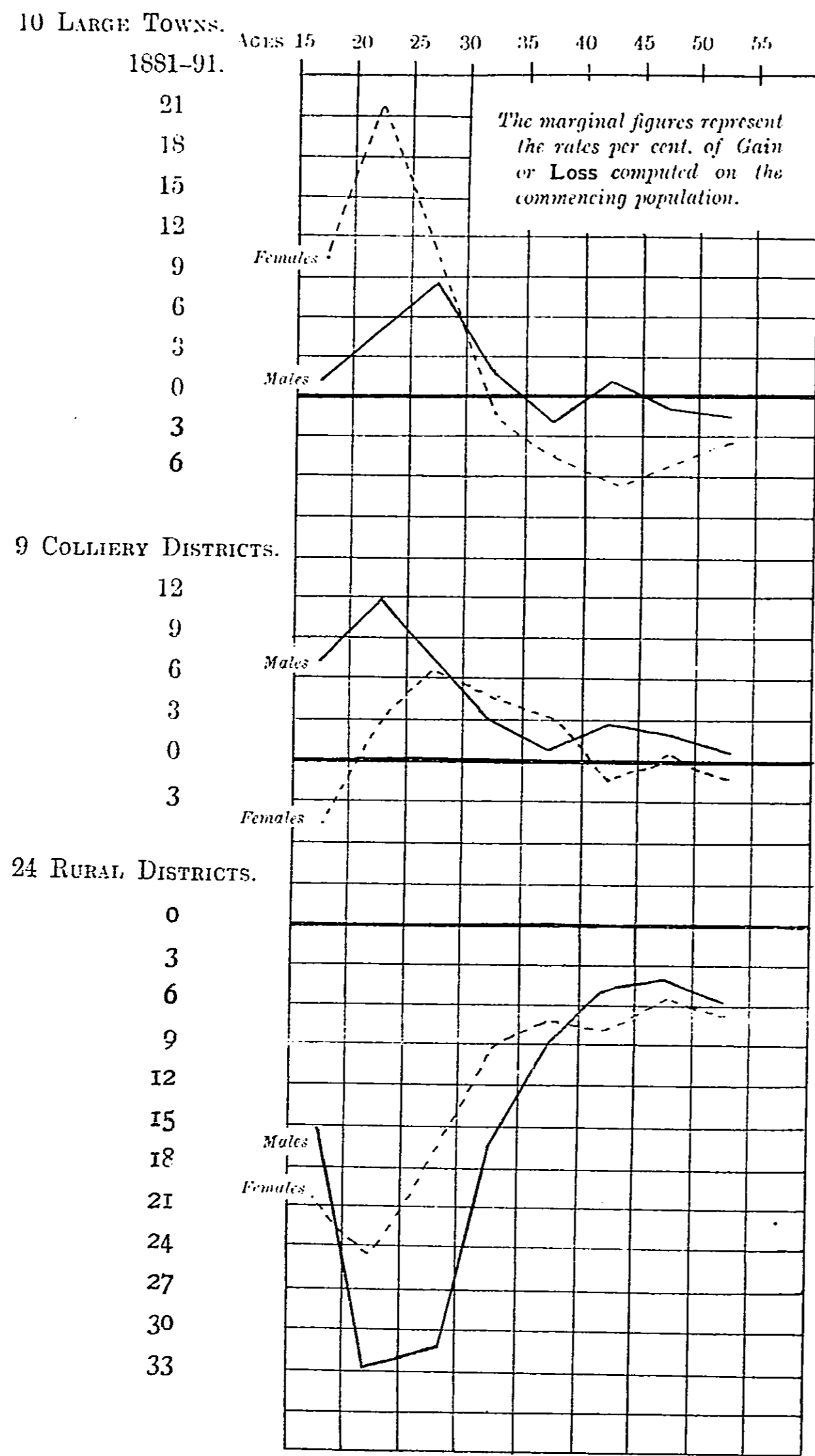
Second, a series on pages xviii.-xxv., showing the index numbers at several ages of the death-losses of several aggregates of districts as classed under ten heads and the rural residues under three heads, leaving the remaining rural aggregates unrepresented by graphs, as well as the four Military towns and the Residential districts containing lunatic asylums.

Third, a series on pages xxvi.-lix., showing the index numbers at several ages of the death-losses of certain selected places, including at the end a few samples of rural residues of County groups.

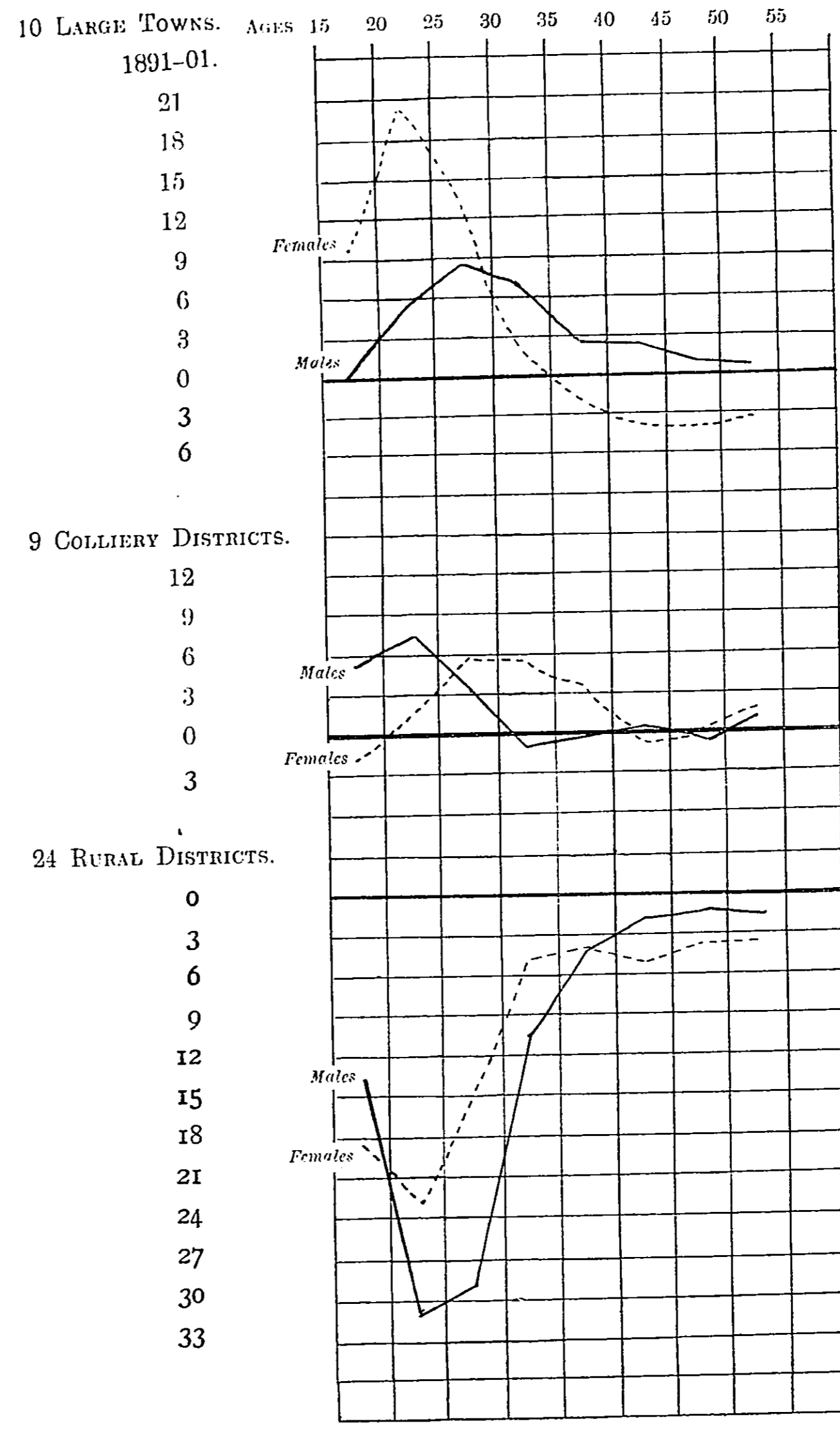
There are besides, on pages lx.-lxiii., similar graphs in relation to the re-calculated death-losses of certain places shown in Appendix G.

And finally, on page lxiv., a diagram relative to the Table in Appendix A, page 131, which serves to exhibit the agreement or discordance of the progressive ratios of shrinkage of population of either sex in a succession of quinquennial periods, at the dates of the last three Censuses.

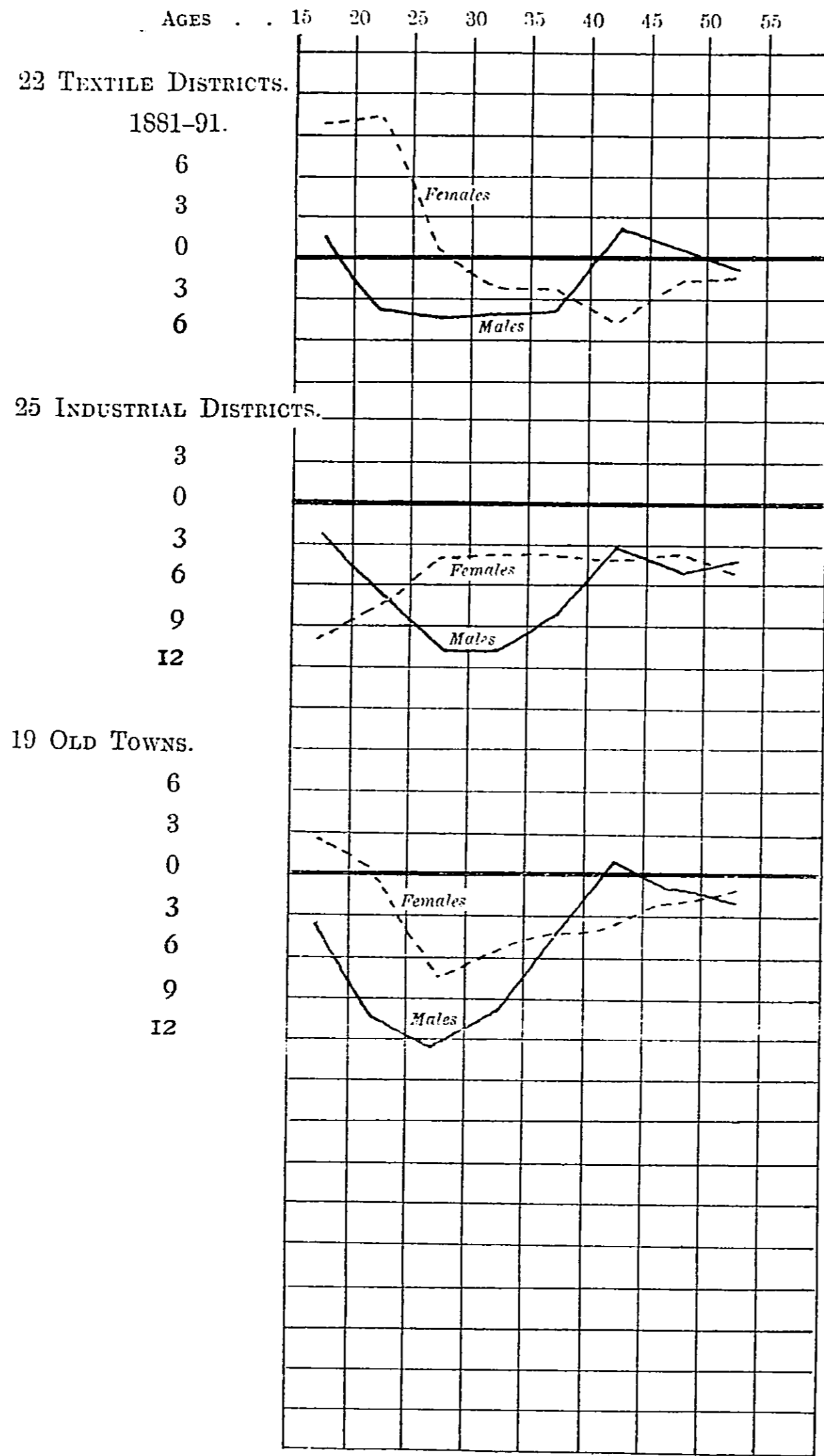
Migration Graphs.



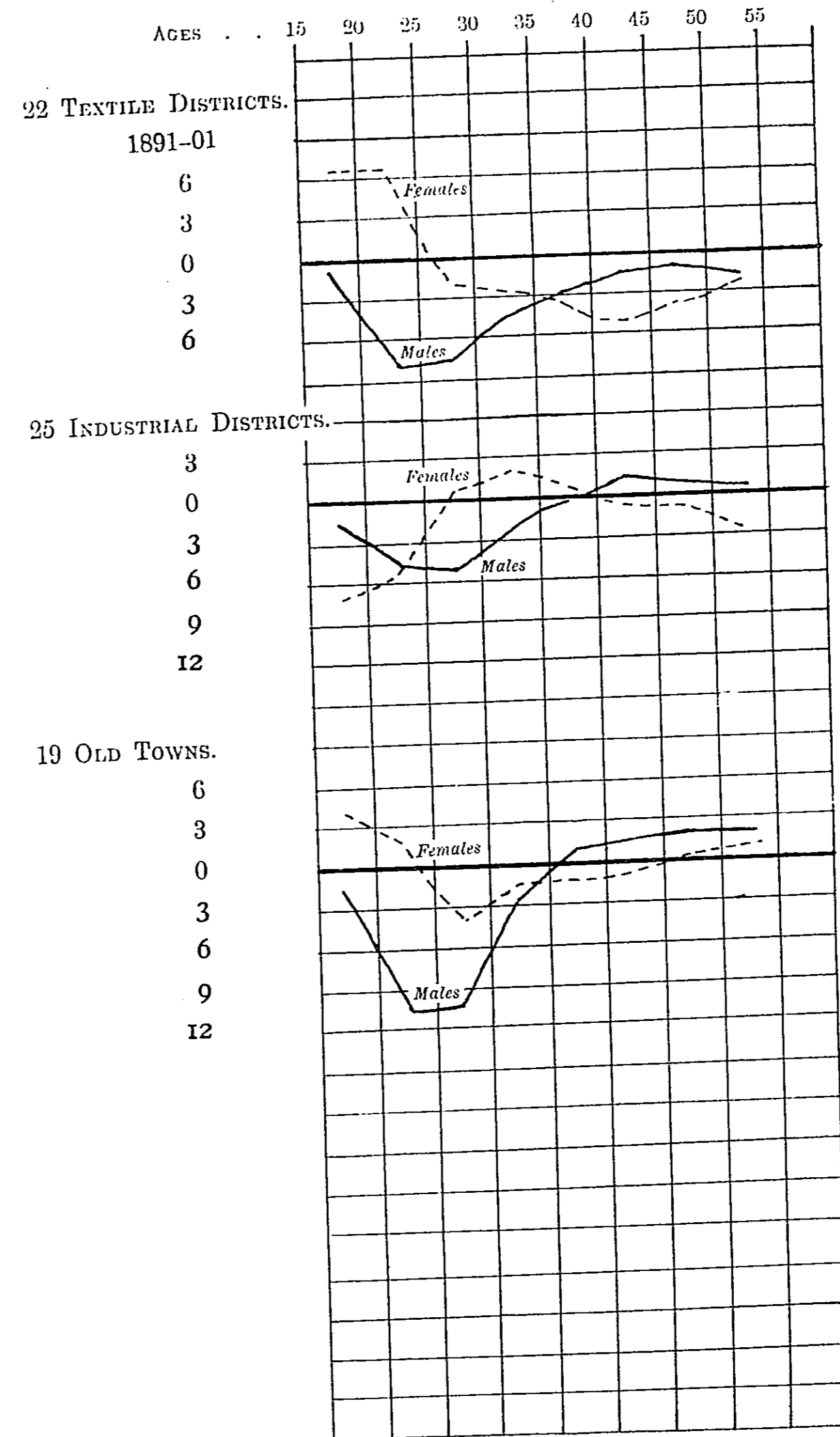
Migration Graphs.



Migration Graphs.



Migration Graphs.

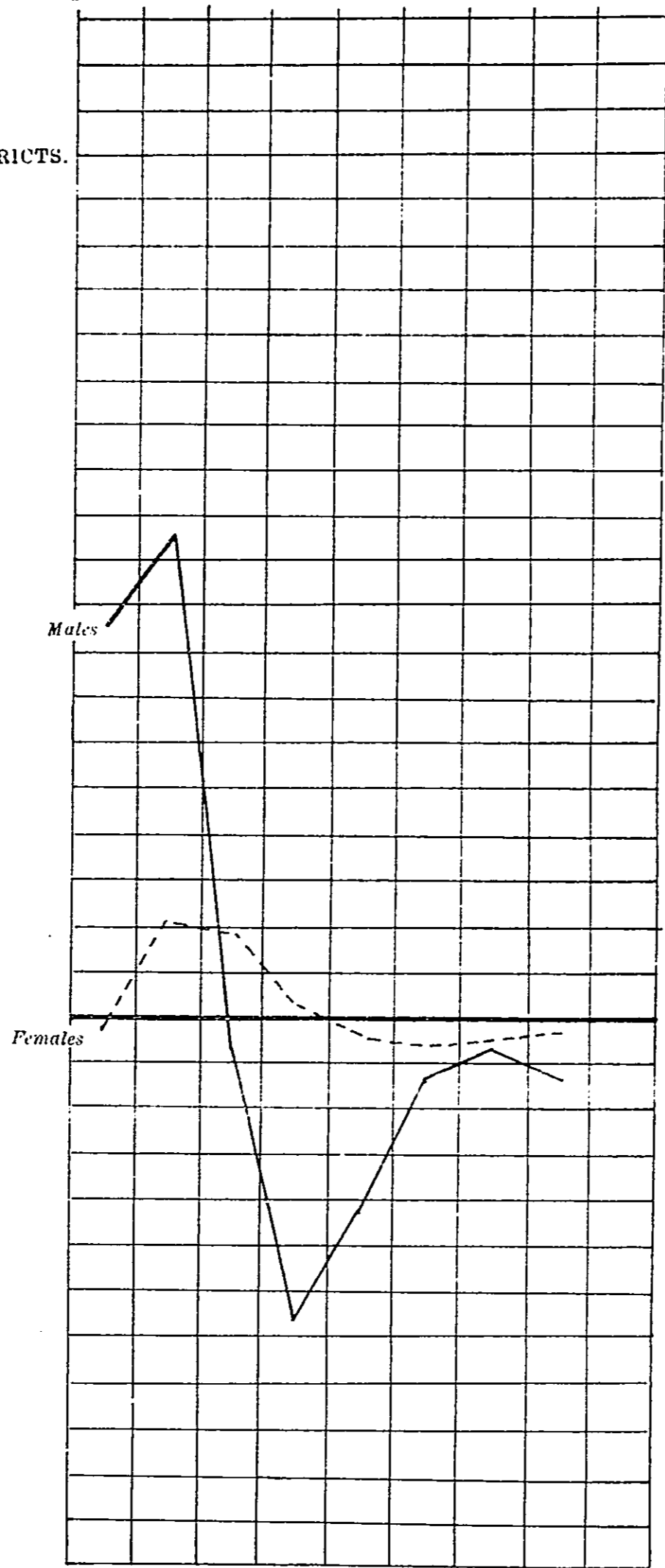


Migration Graphs.

AGES . 15 20 25 30 35 40 45 50 55

16 MILITARY DISTRICTS.
1881-91.

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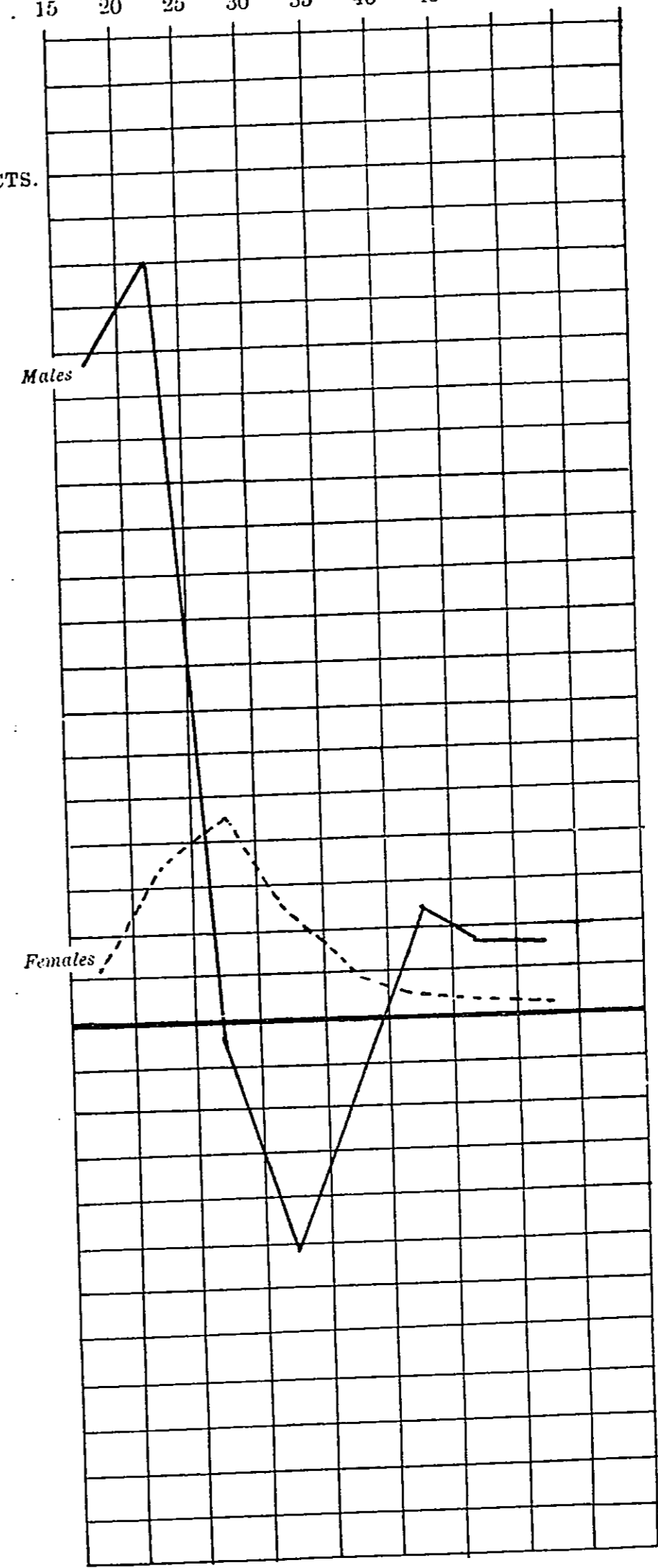


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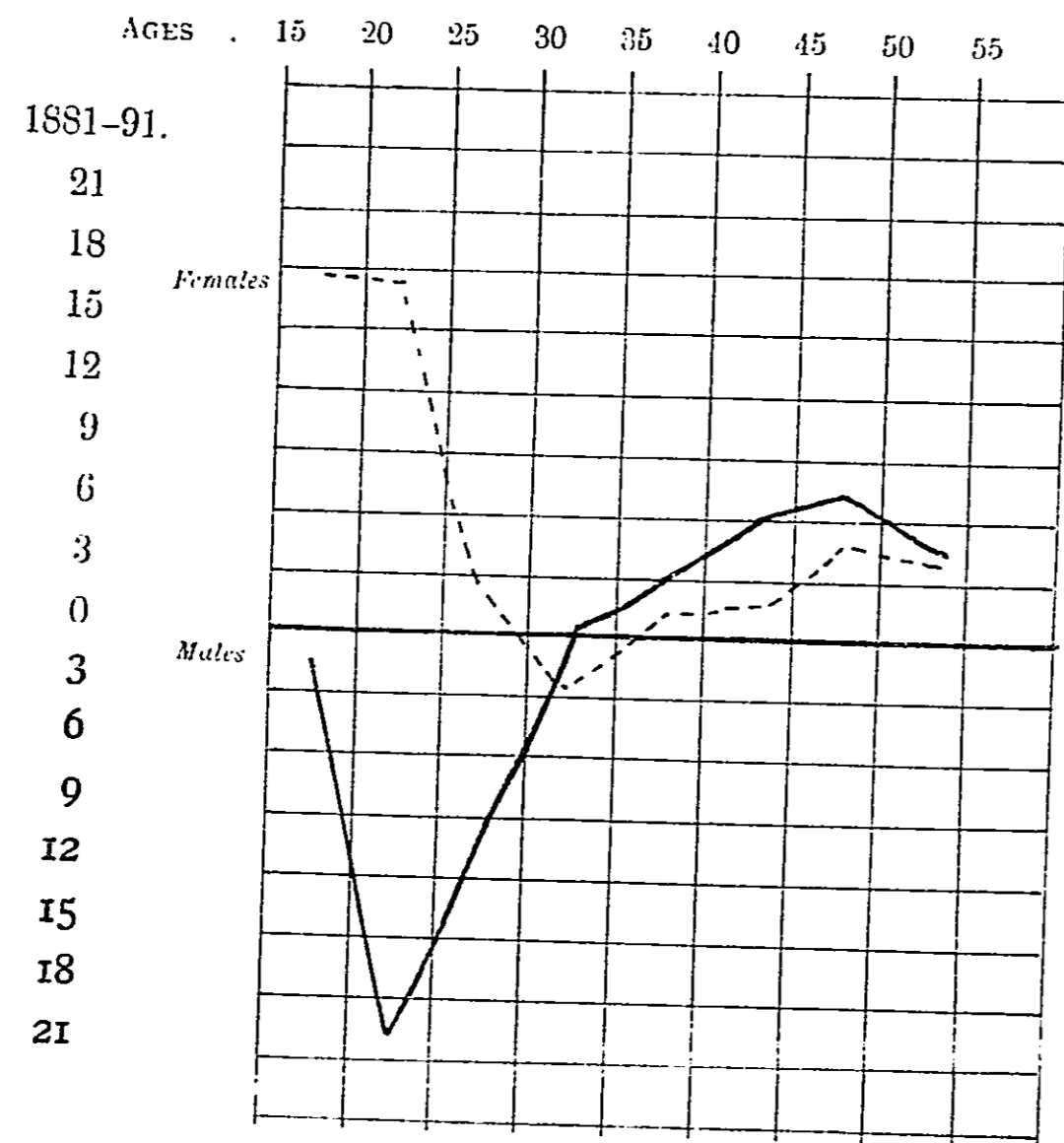
AGES . 15 20 25 30 35 40 45 50 55

16 MILITARY DISTRICTS.
1891-01.

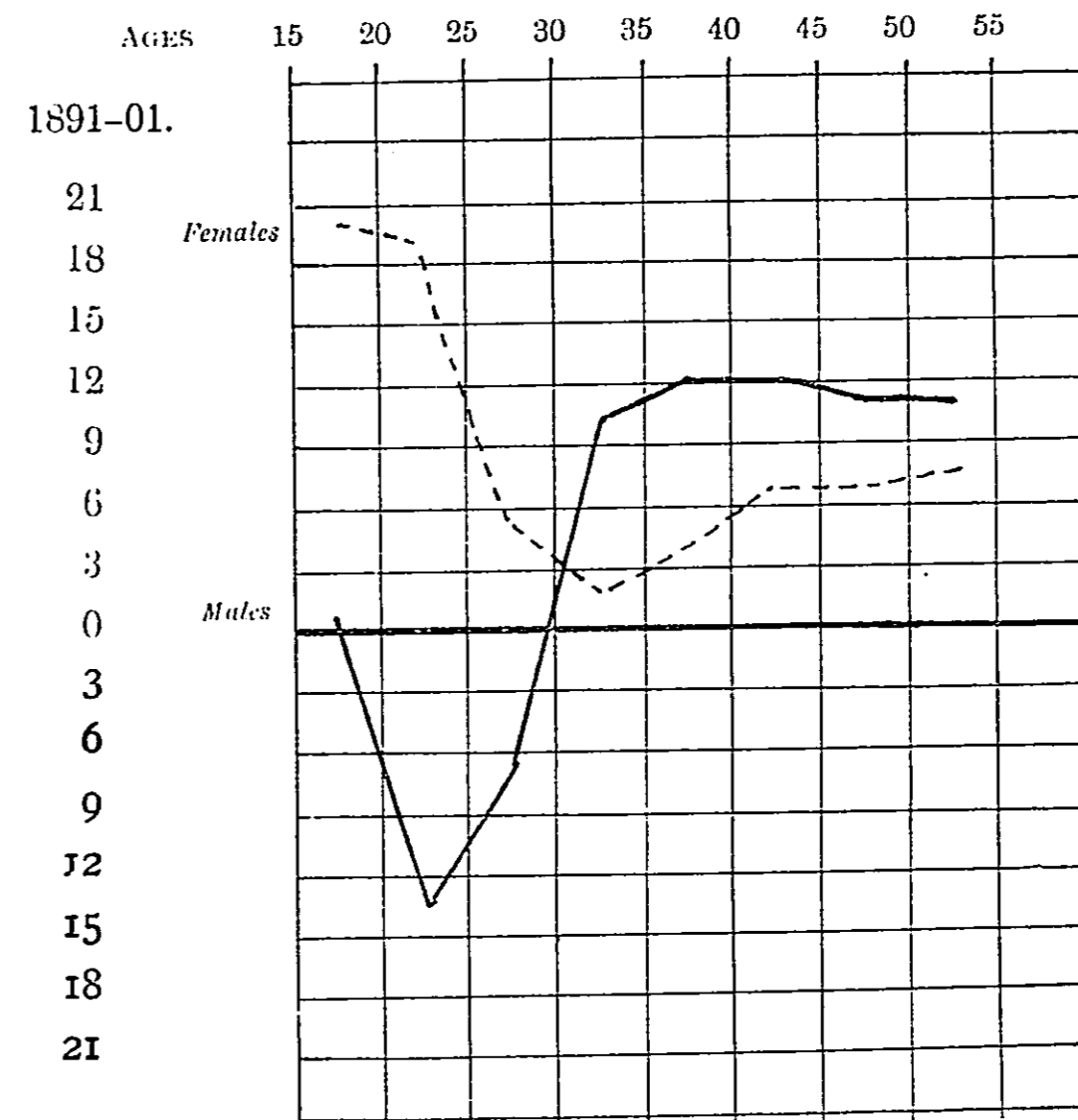
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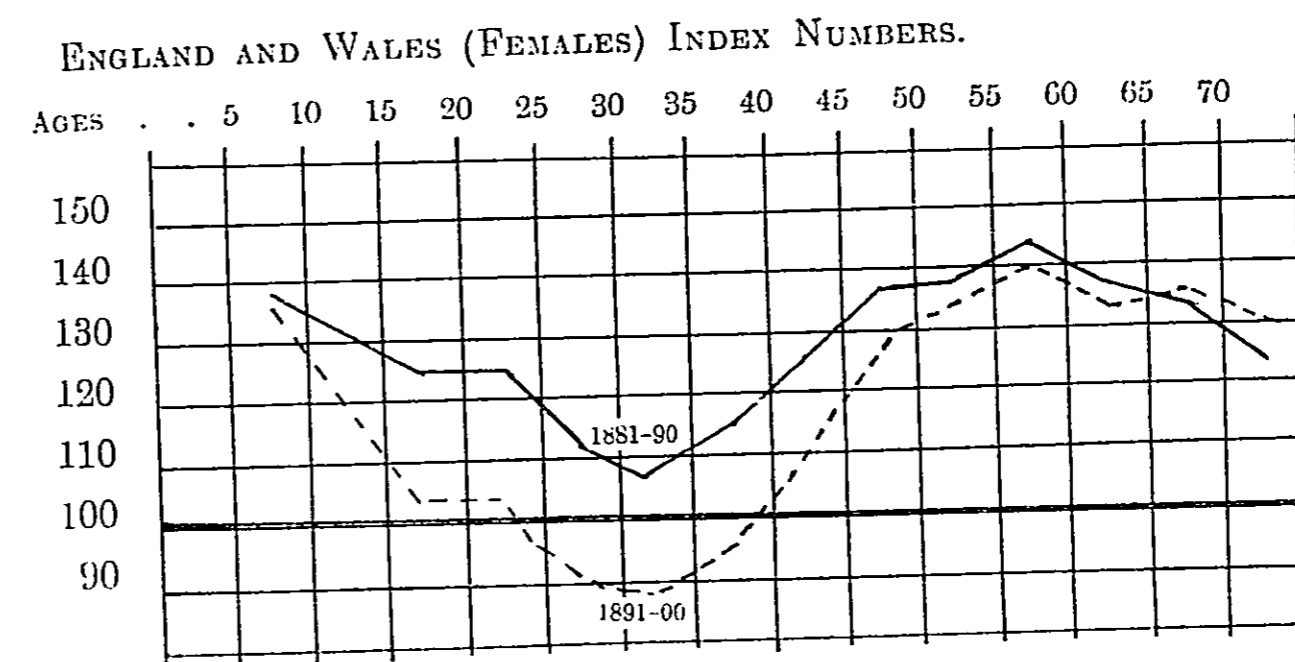
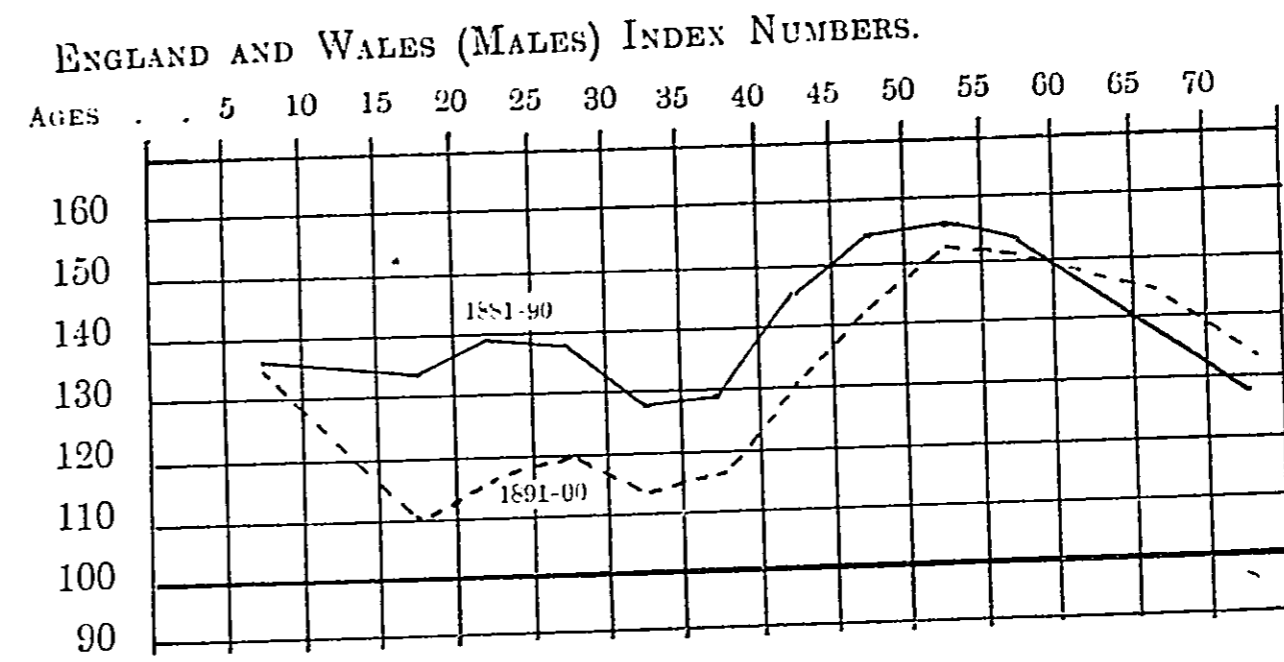
32 RESIDENTIAL DISTRICTS.



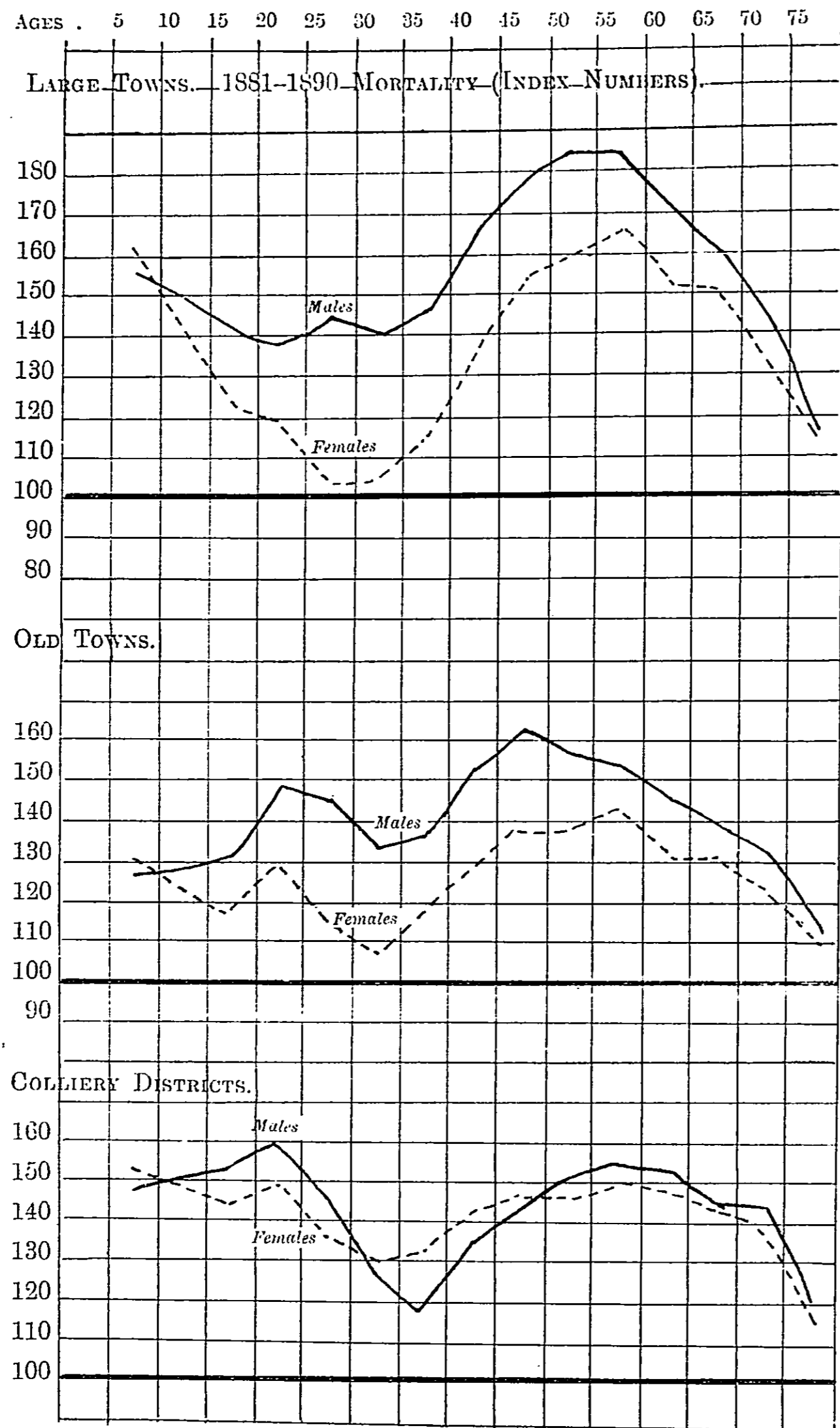
32 RESIDENTIAL DISTRICTS.



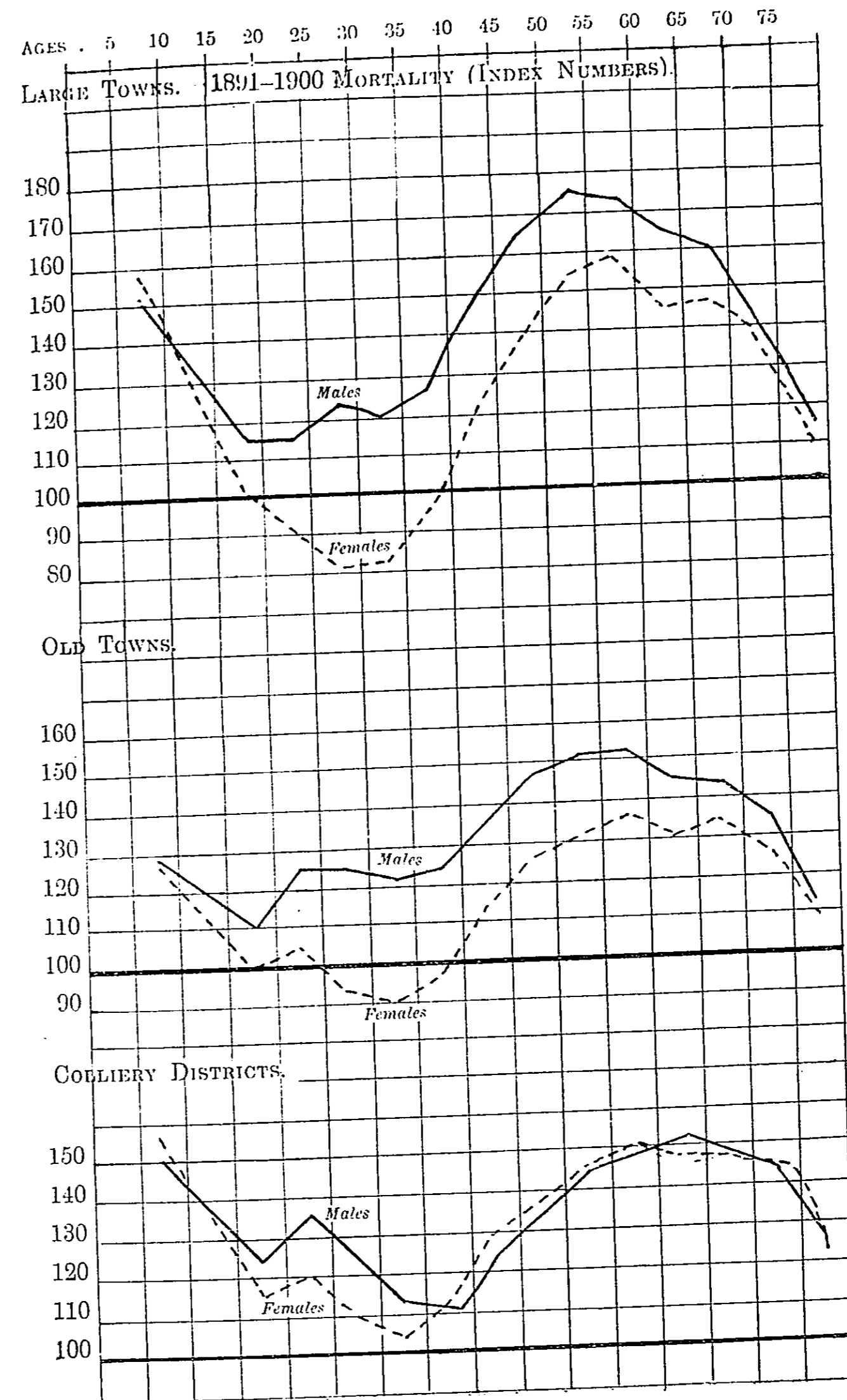
The diagrams opposite exhibit male and female mortality in accordance with "the scale" at each age-interval. If the figures for 1881-1890 were alone under consideration we might easily accept the scale as representing mortality in healthy districts, but those for 1891-1900 suggest that a lower scale, especially at ages 20-40, might be preferable.



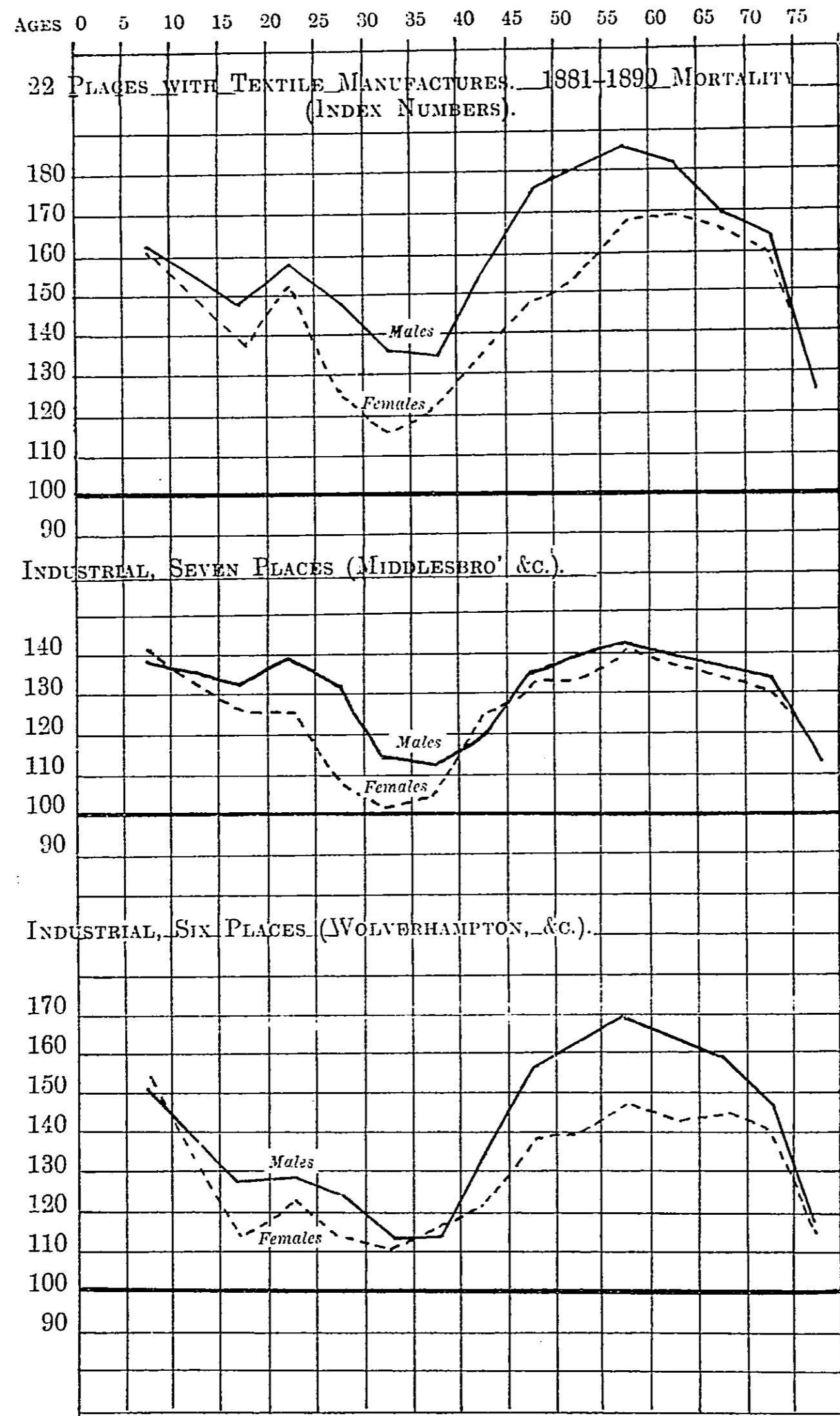
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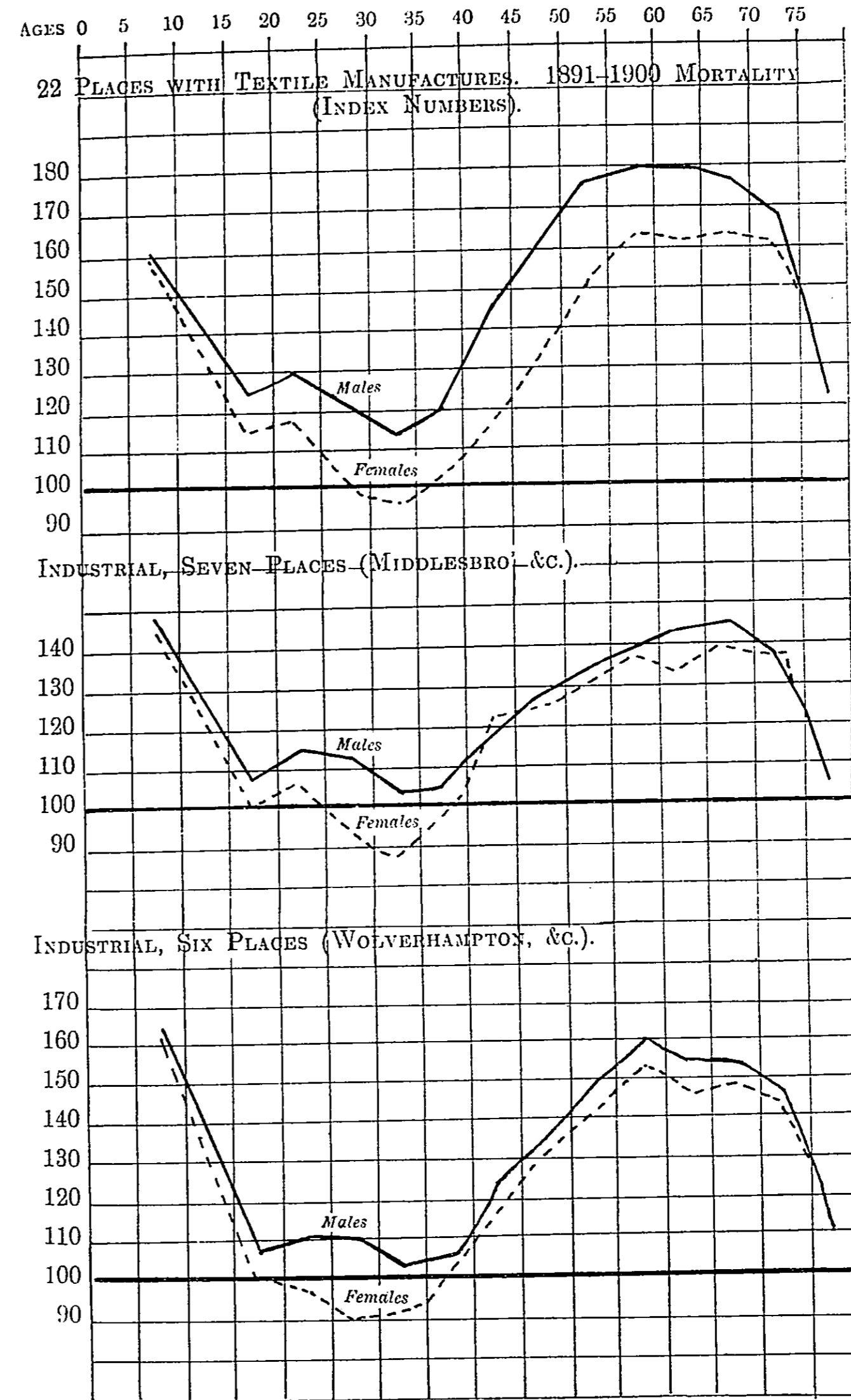
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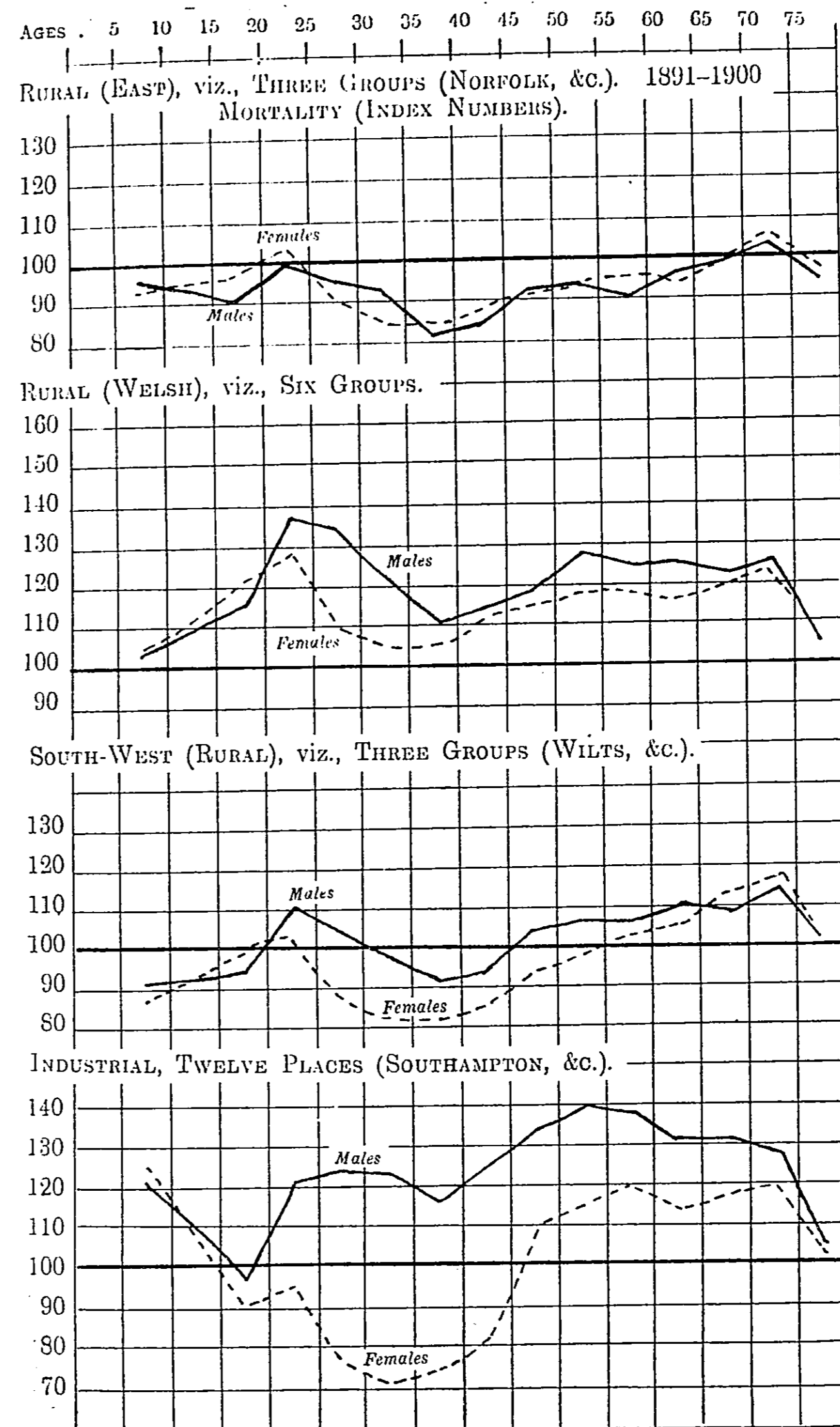
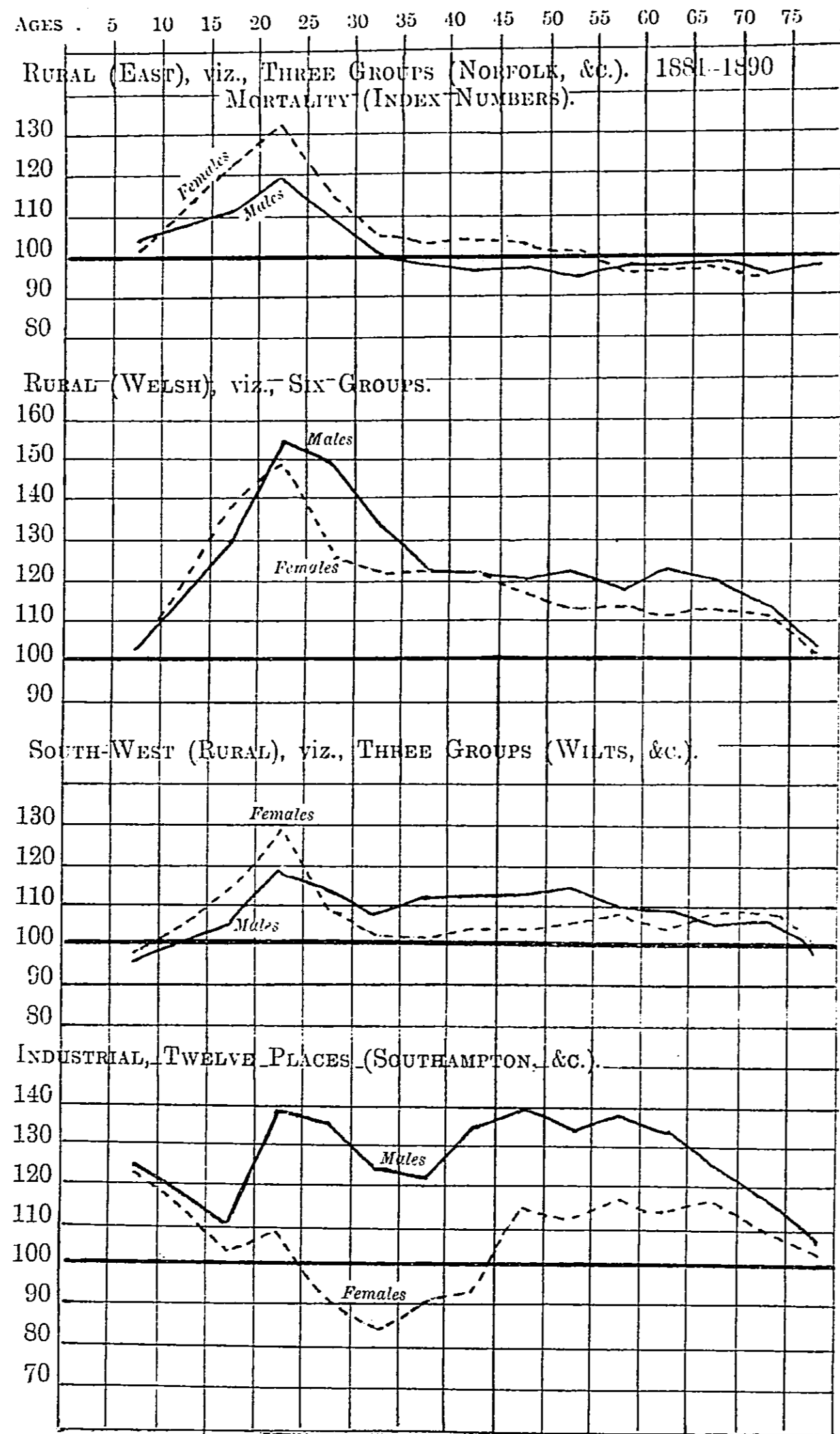


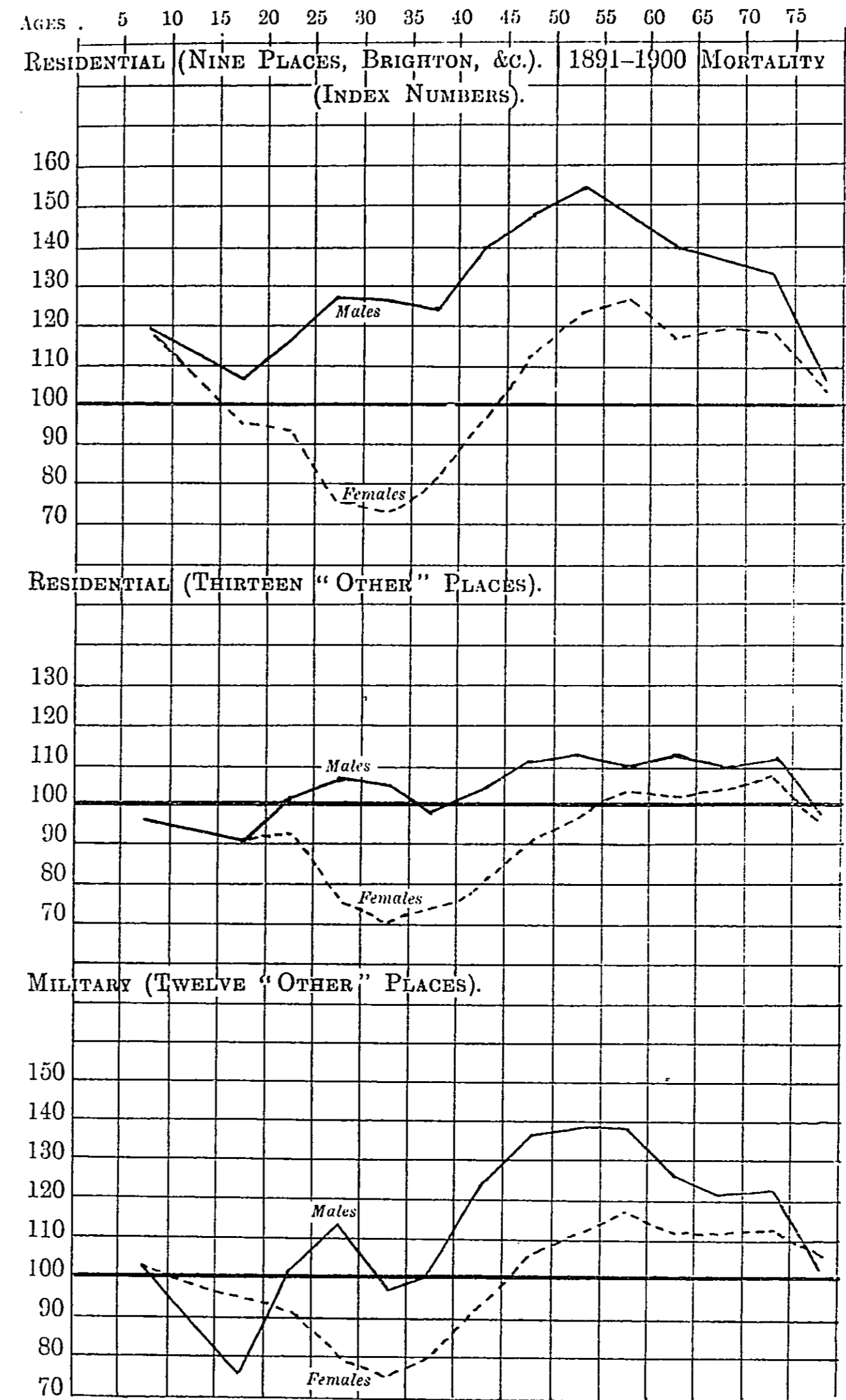
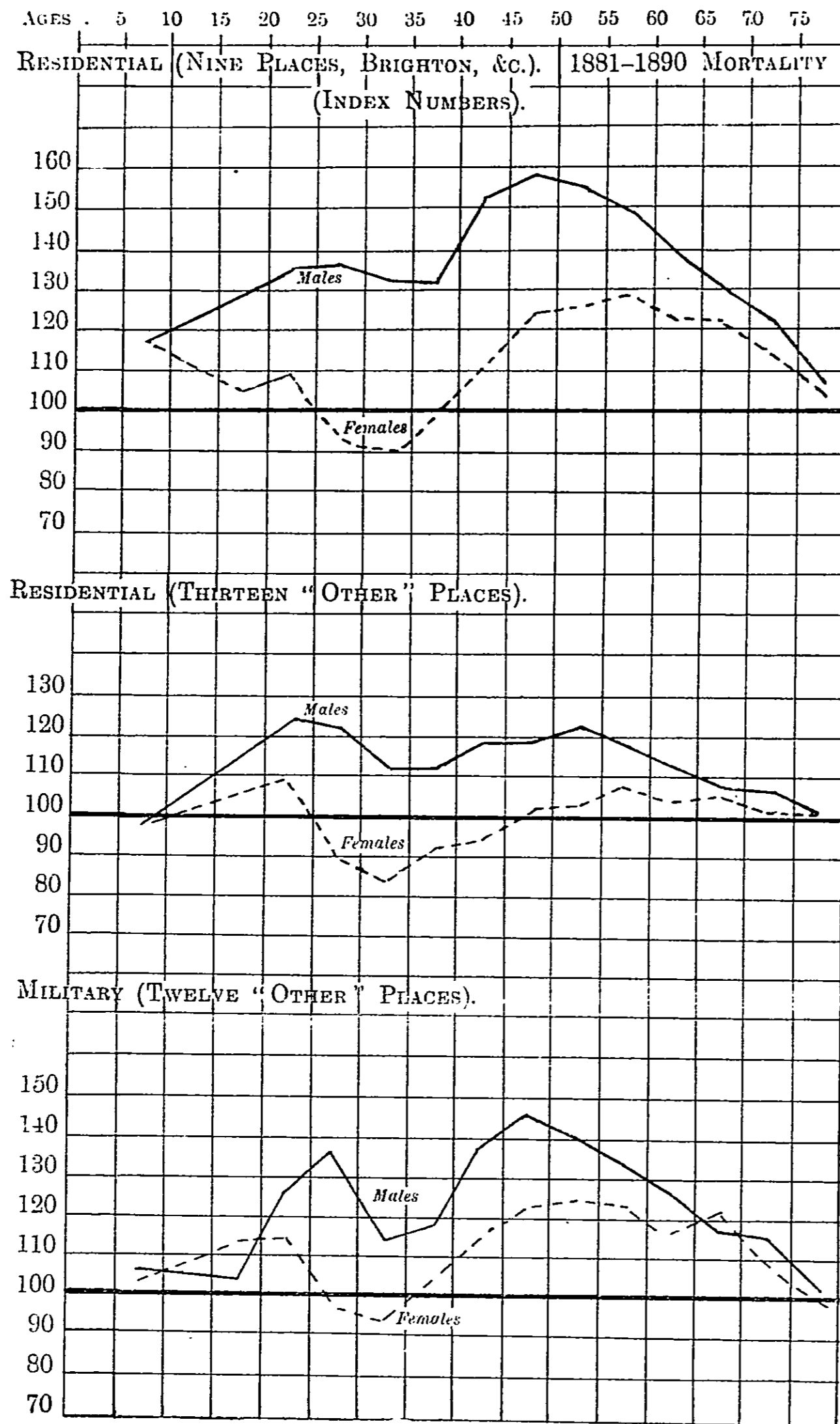
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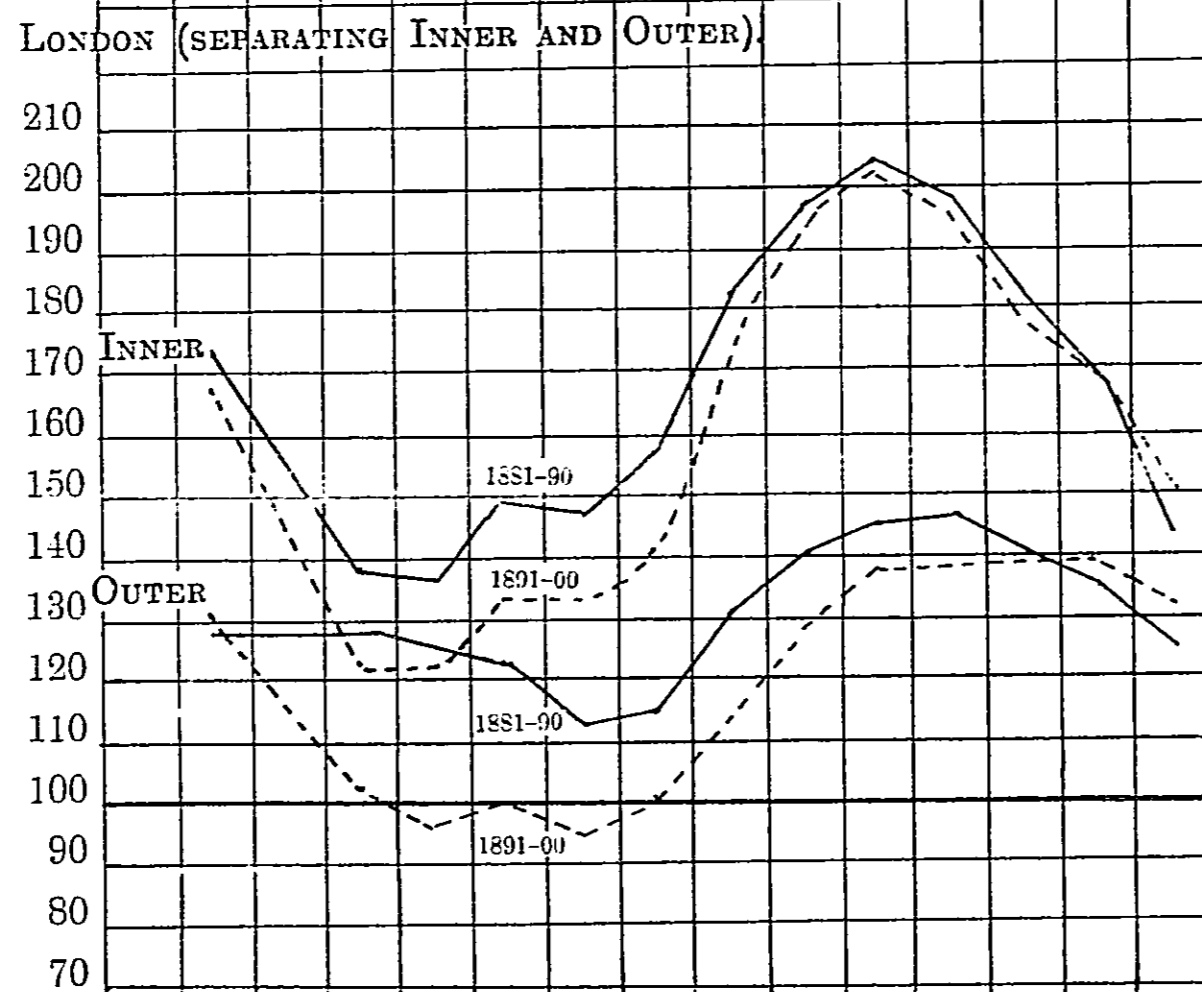
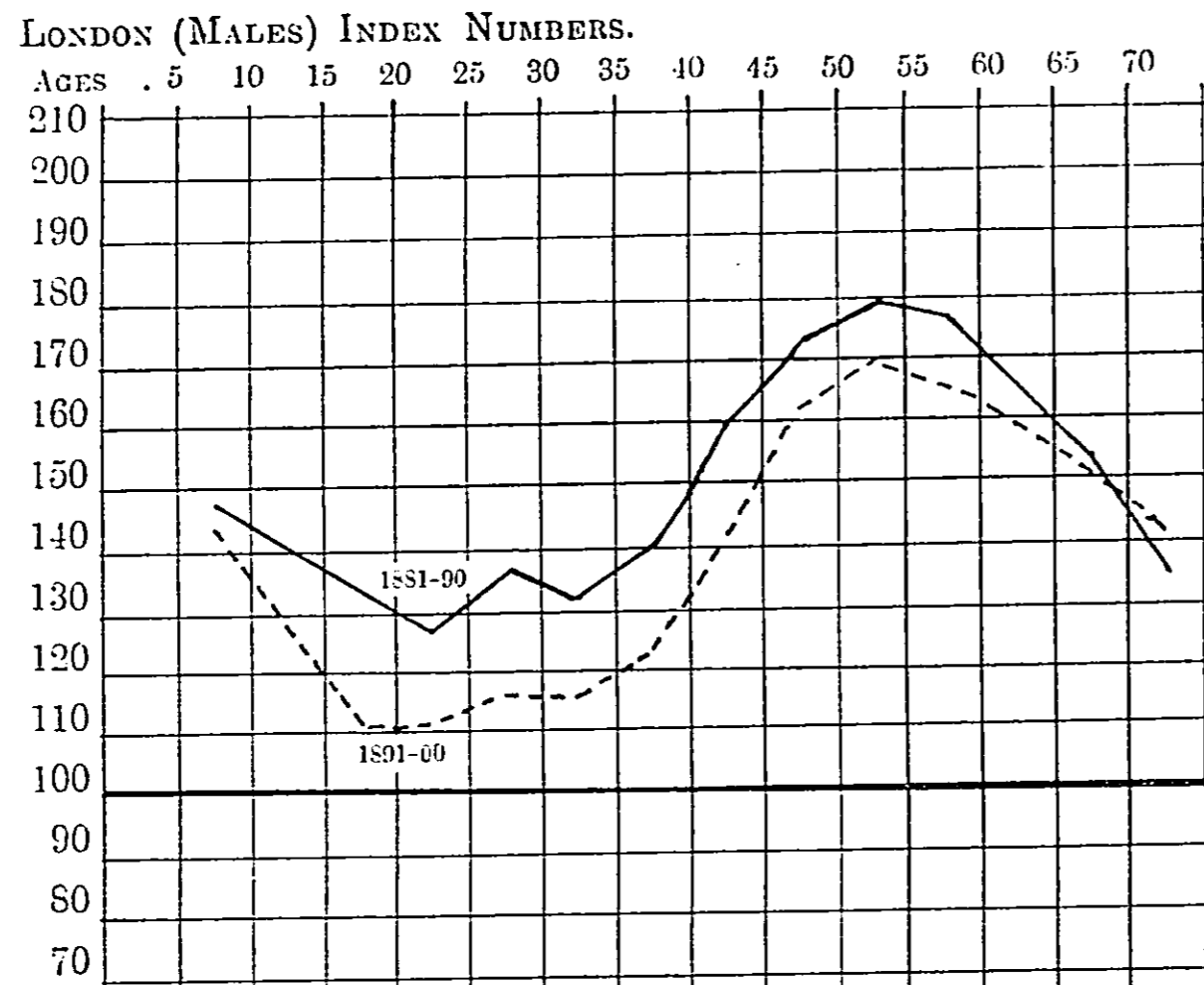


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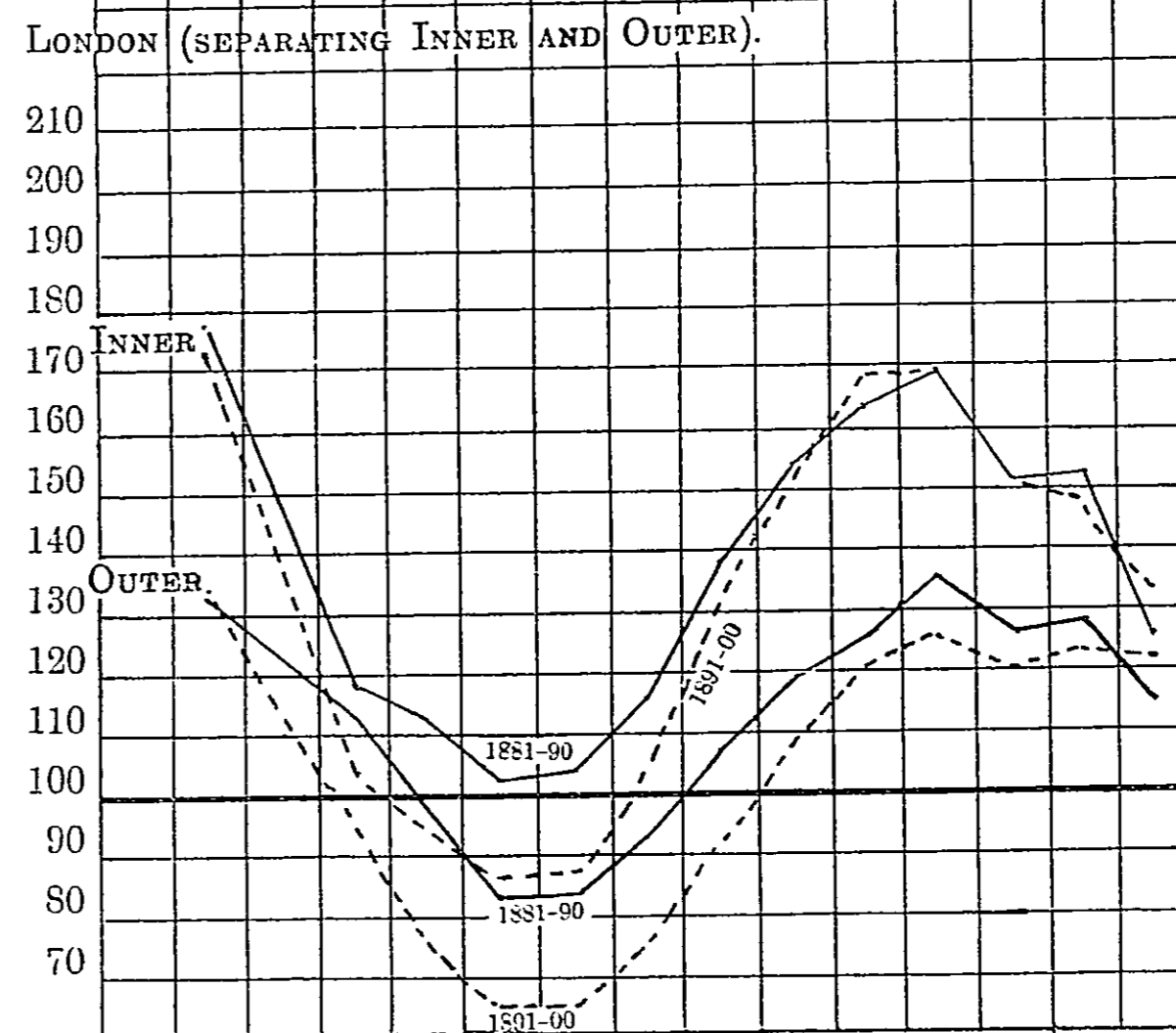
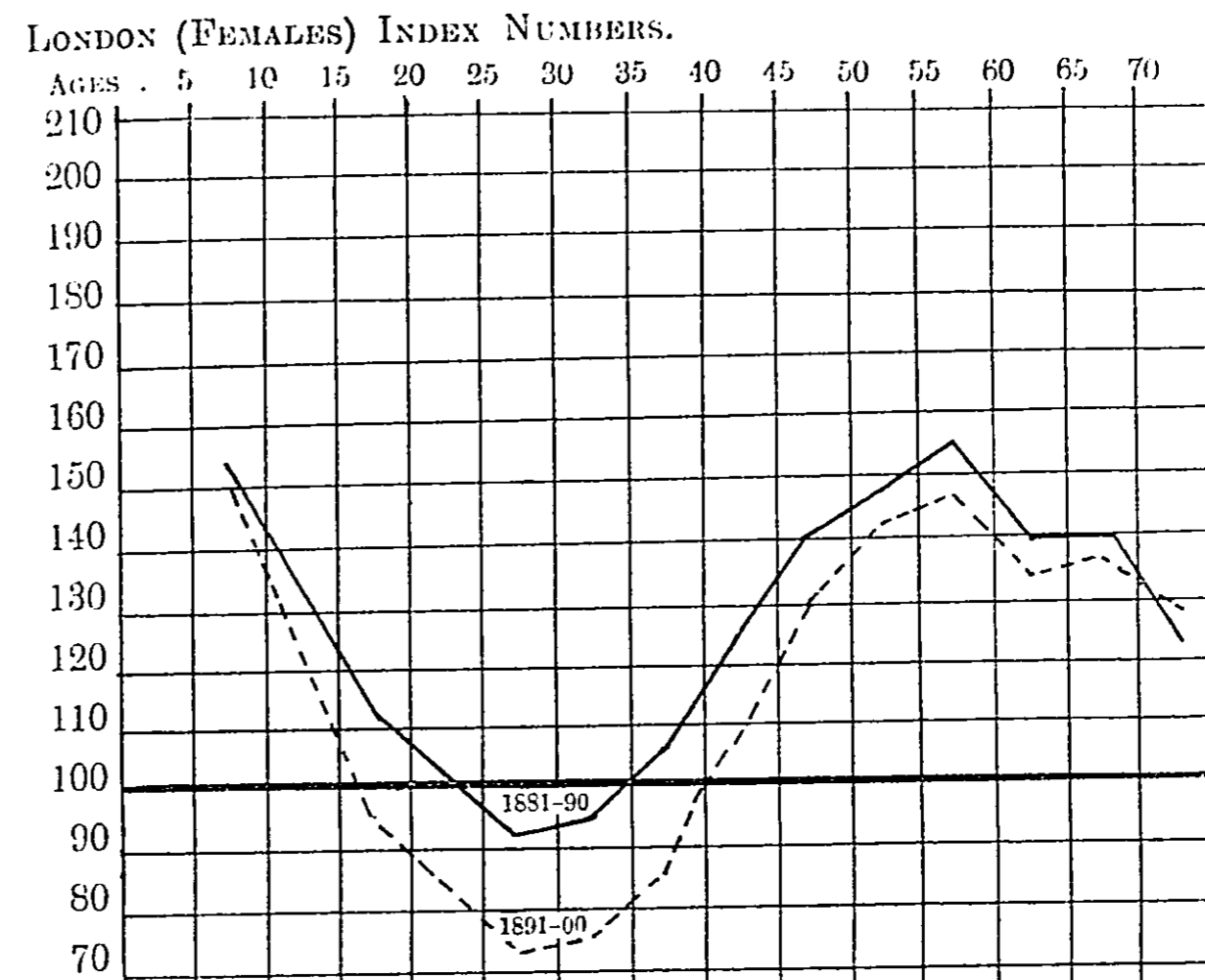


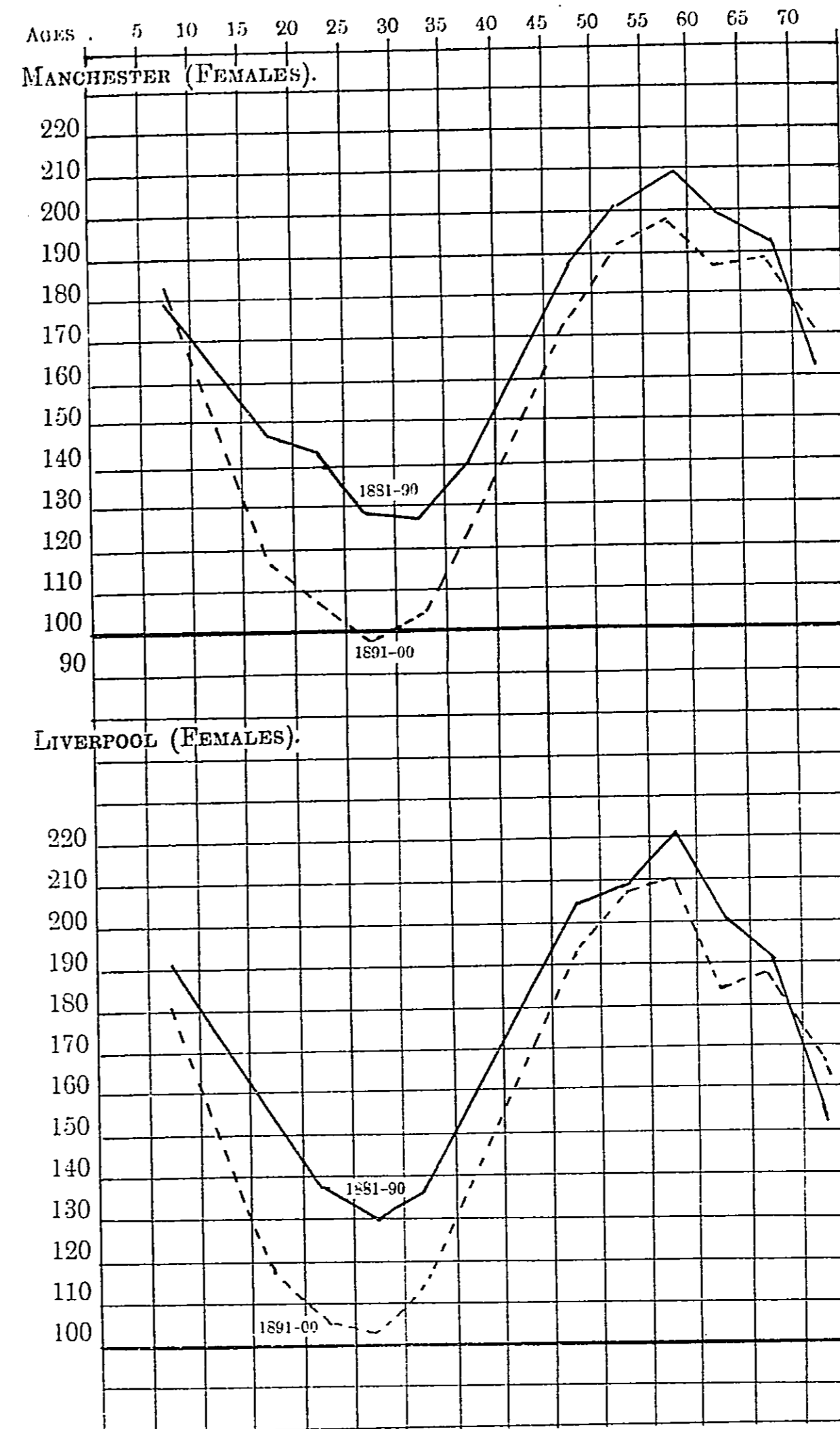
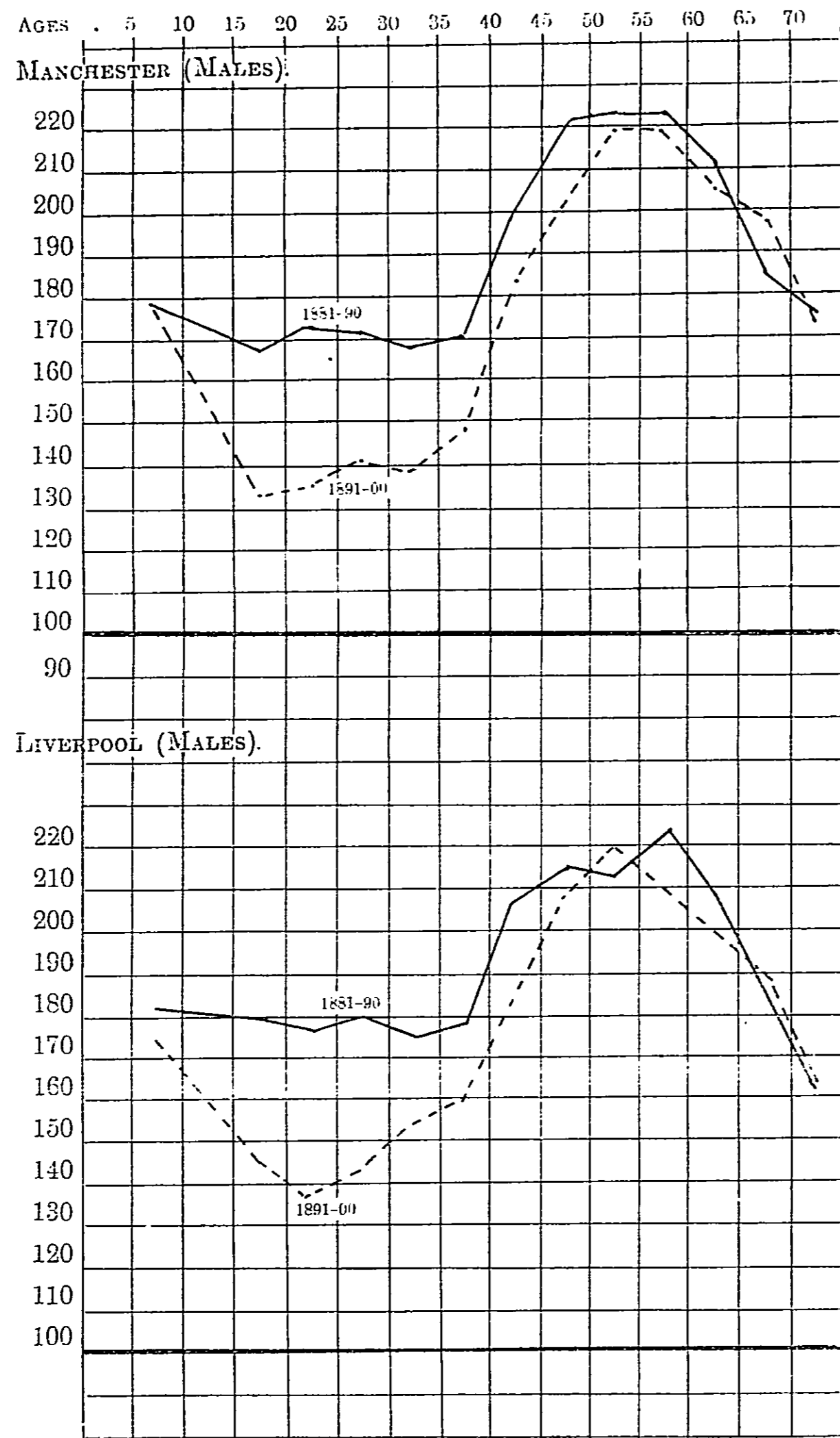


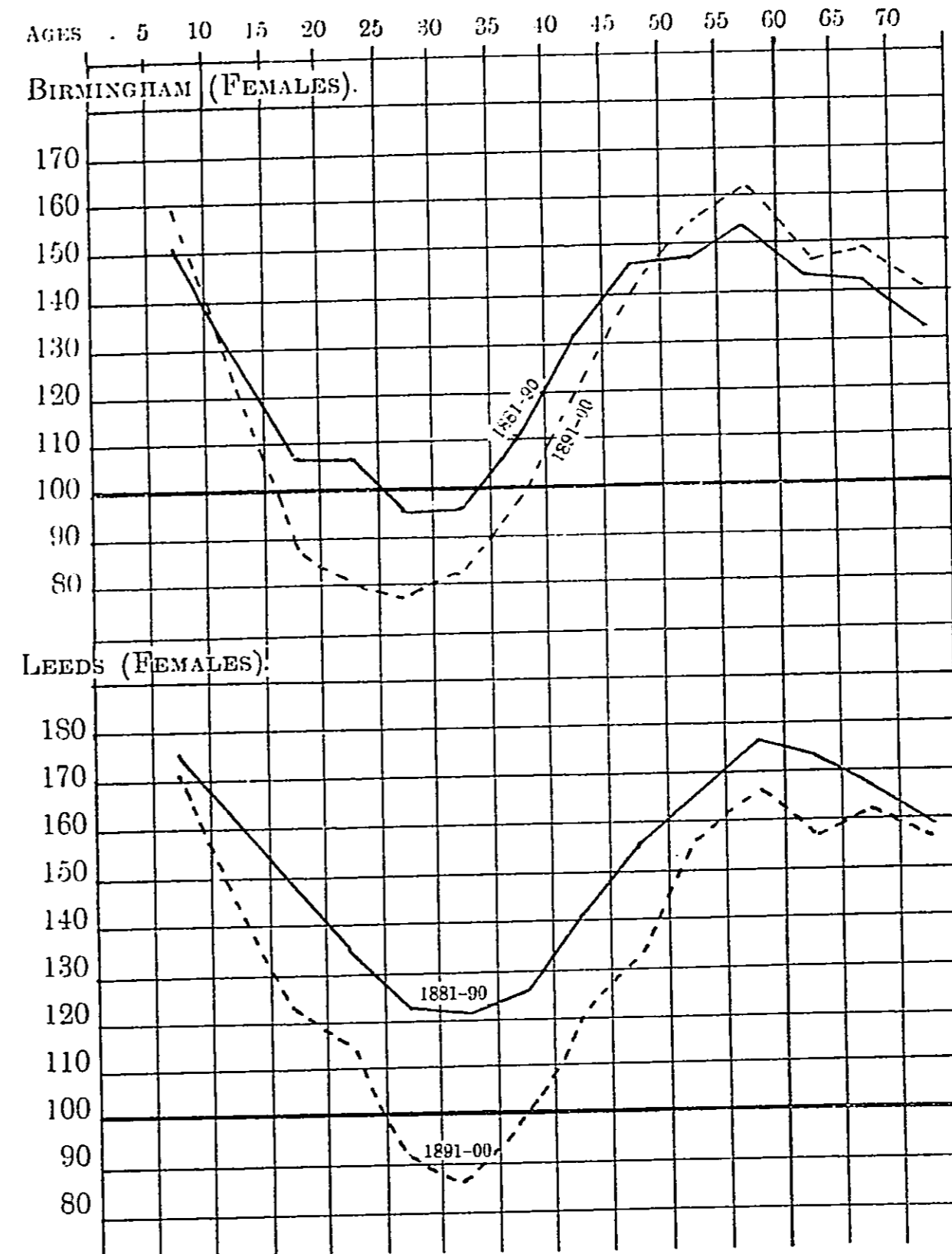
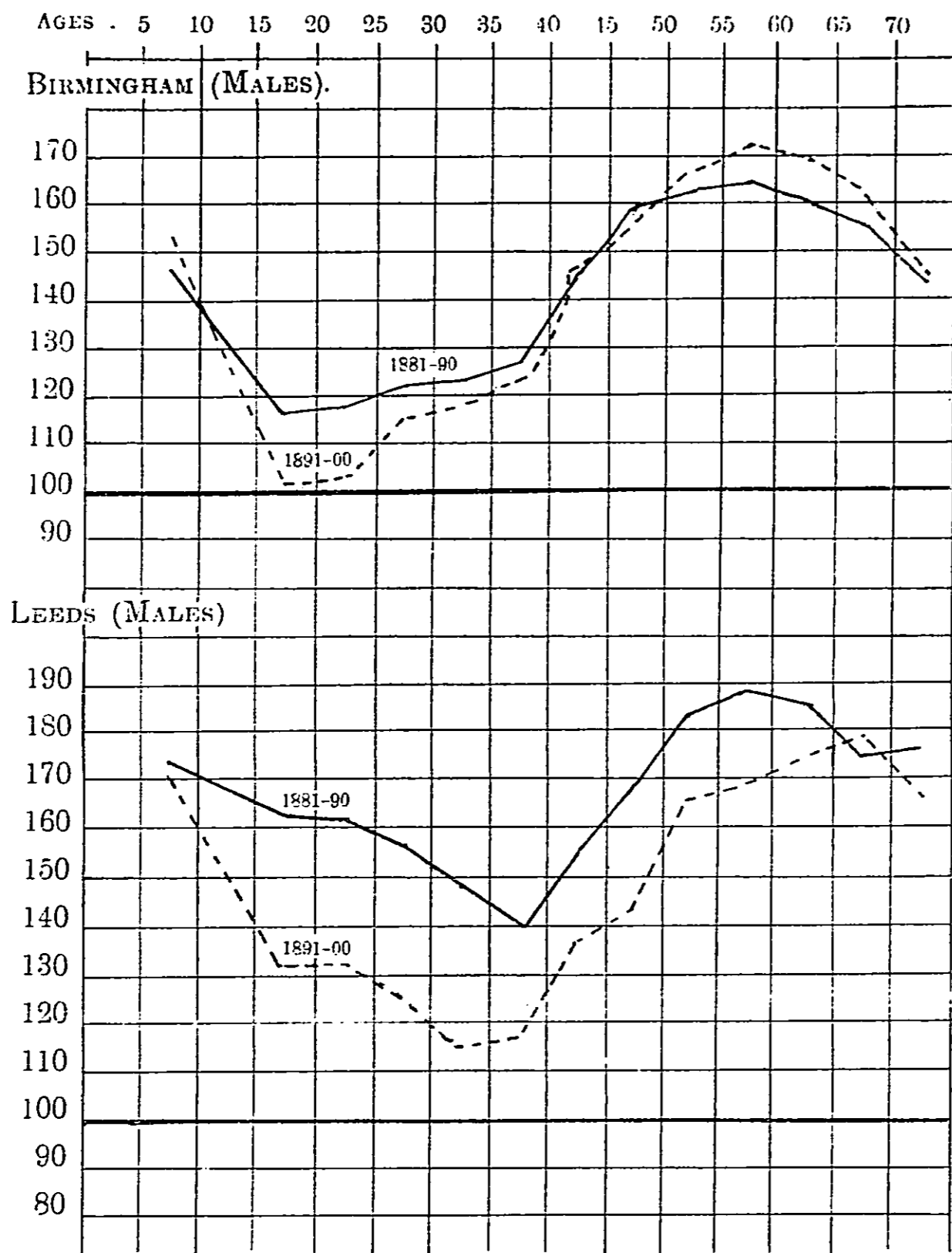




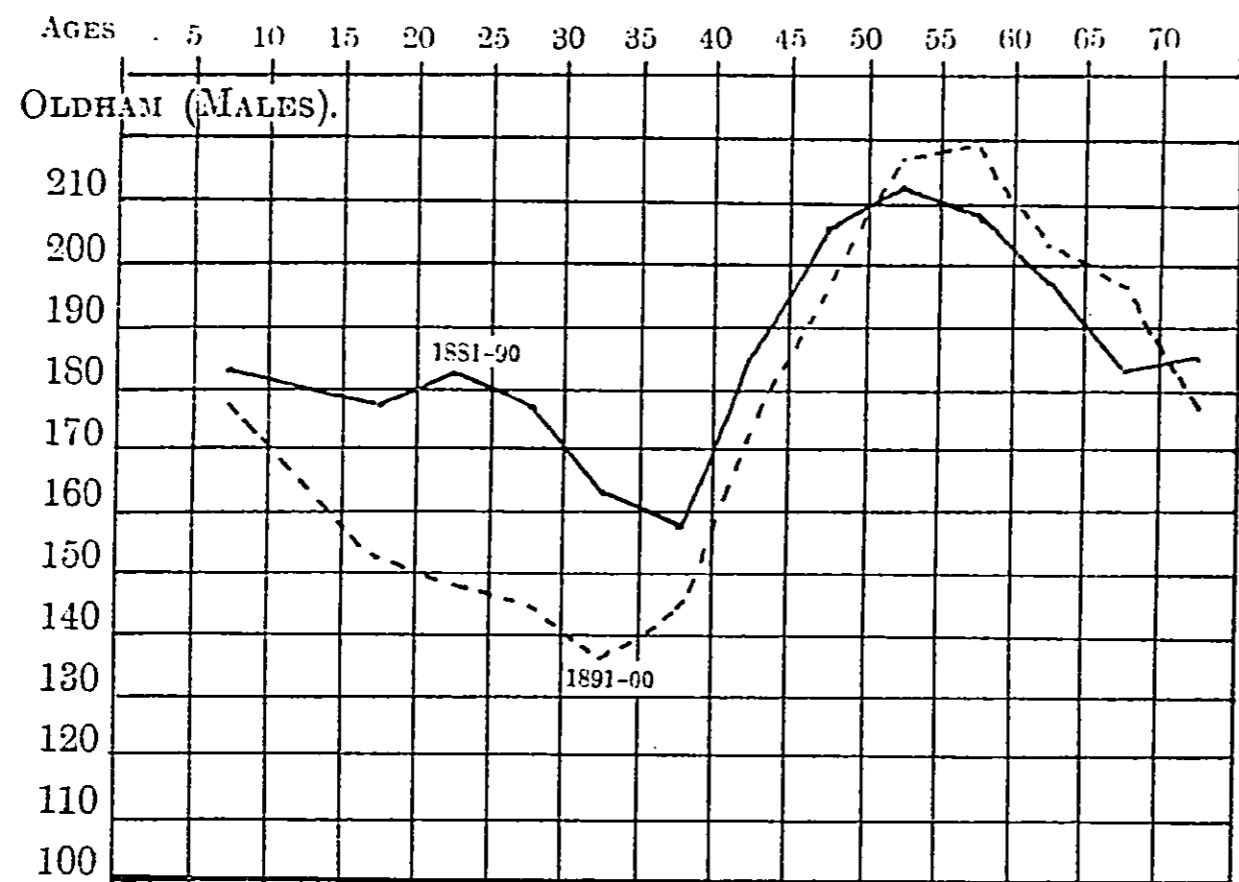
[The continuous lines always represent rates of Mortality in 1881-90, and the dotted lines those in the next Decennium.]



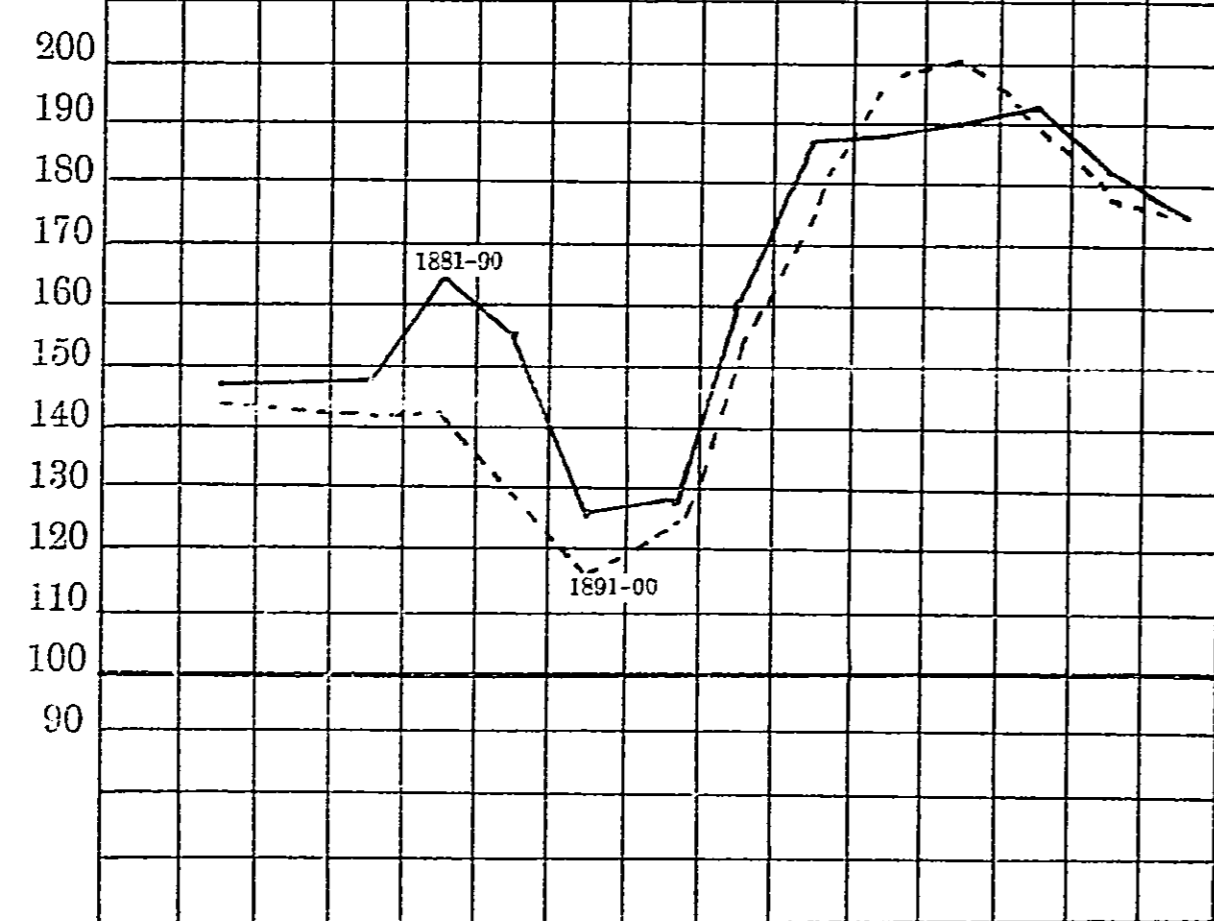




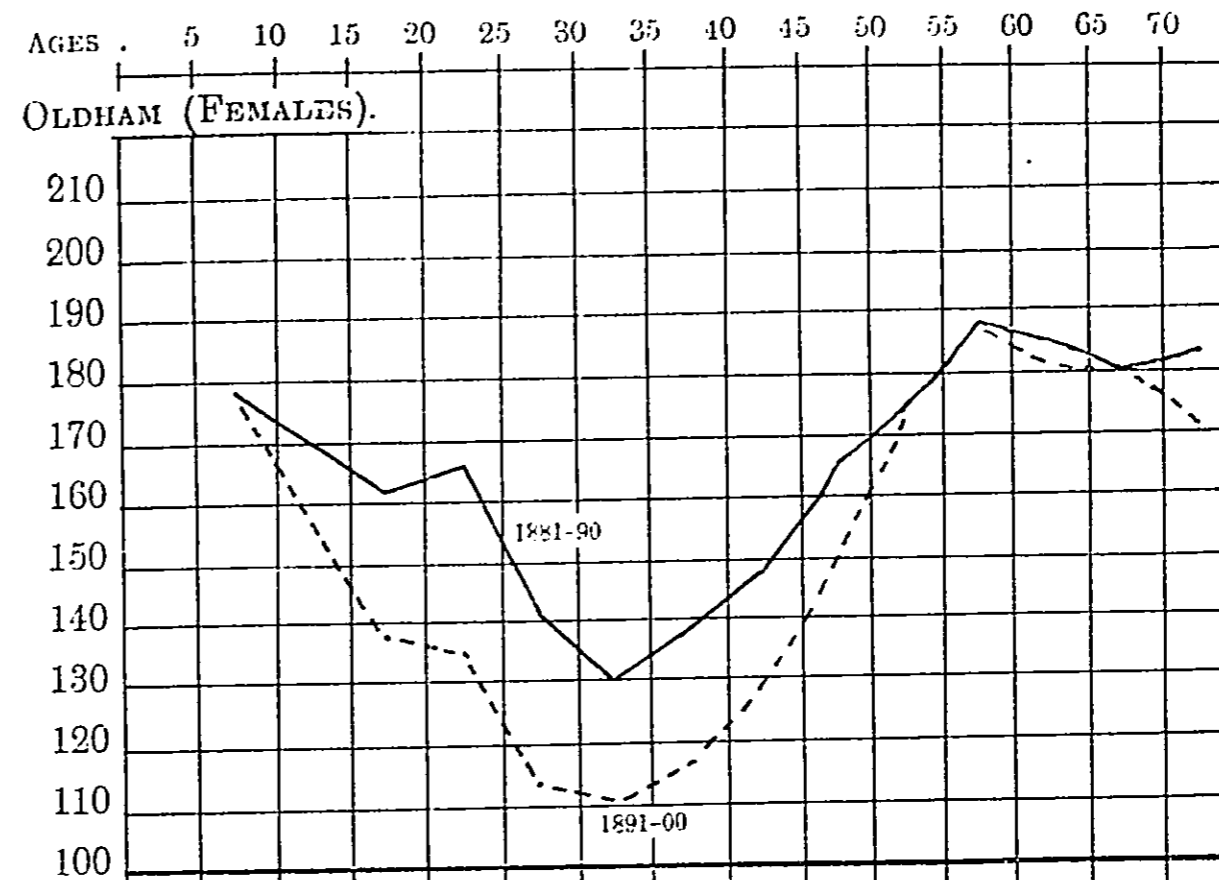
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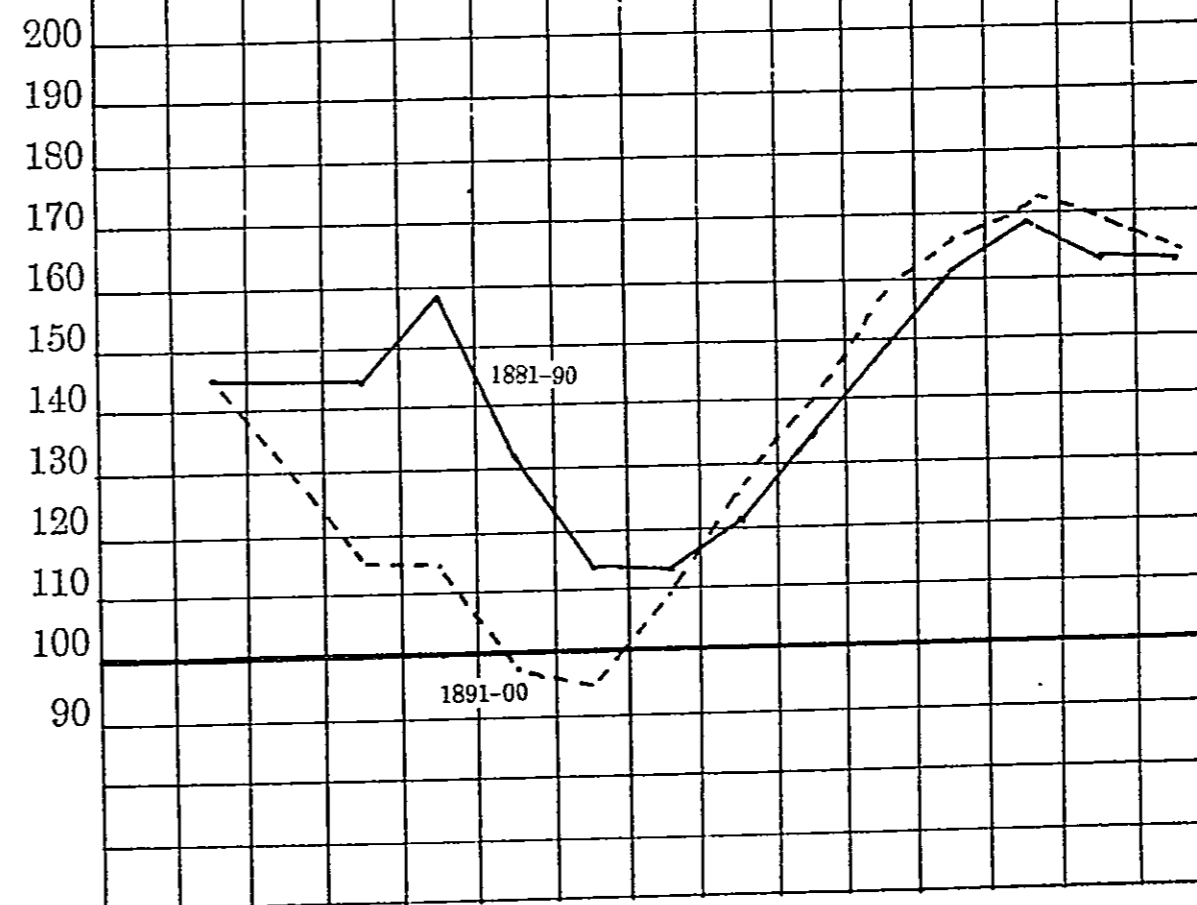
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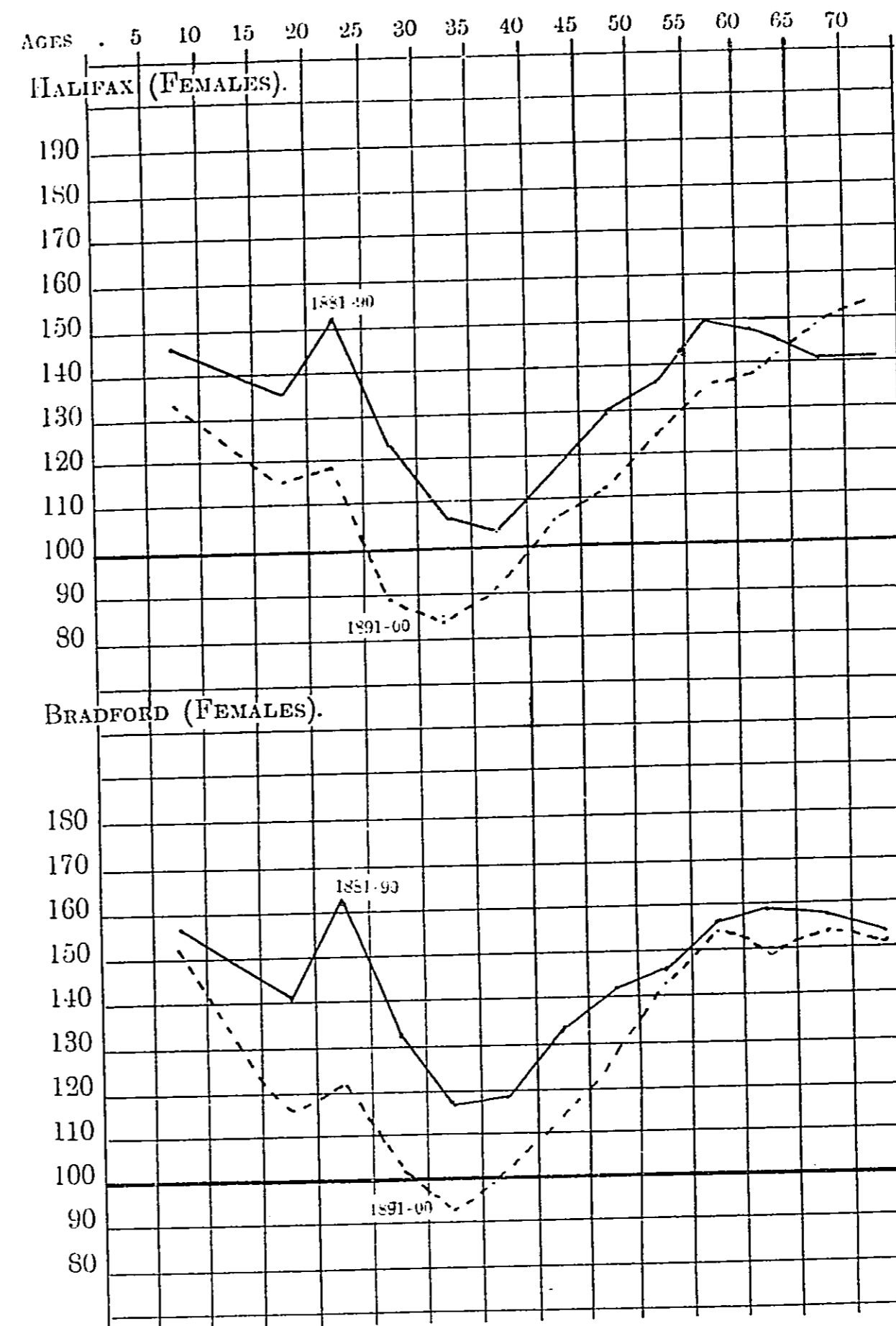
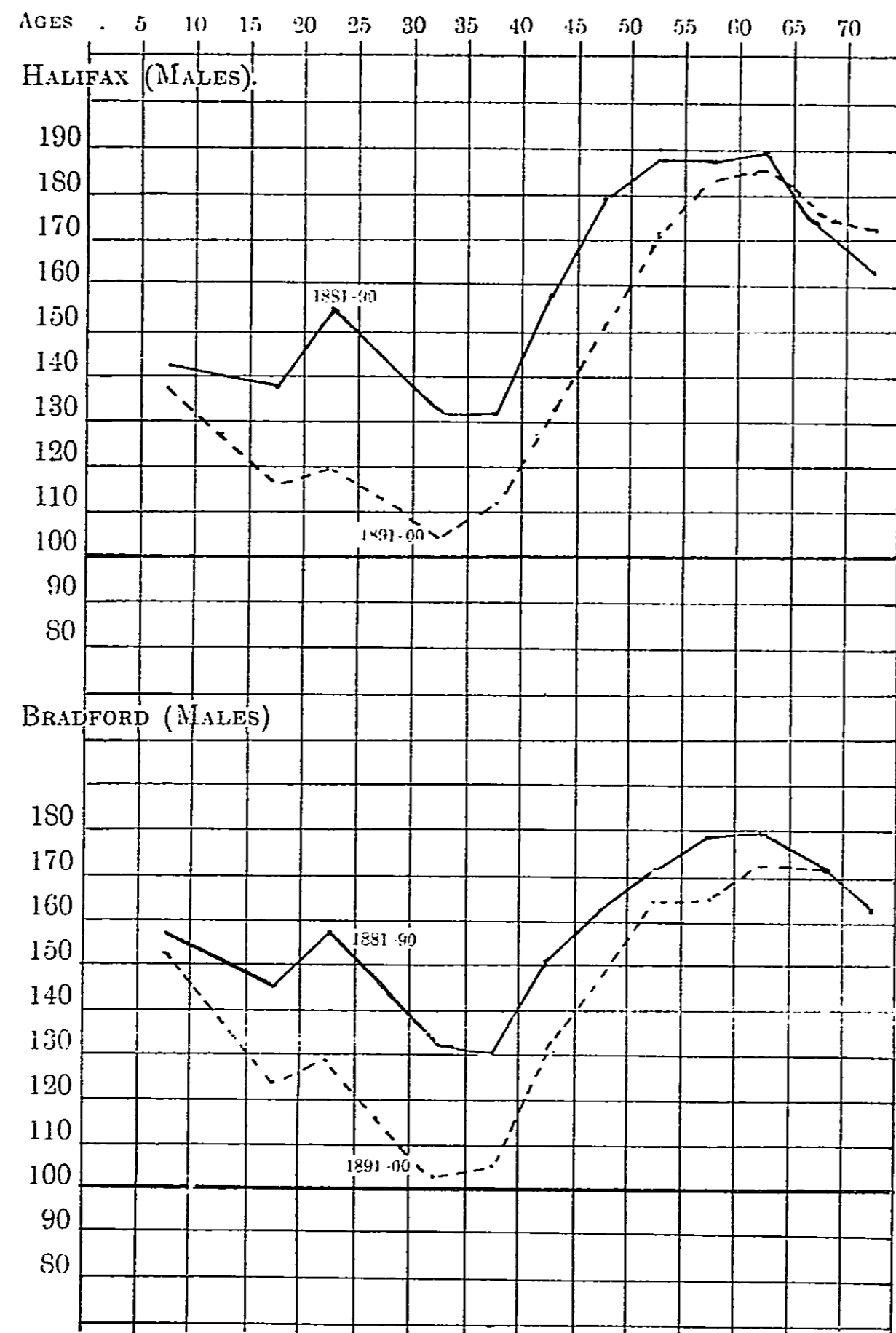


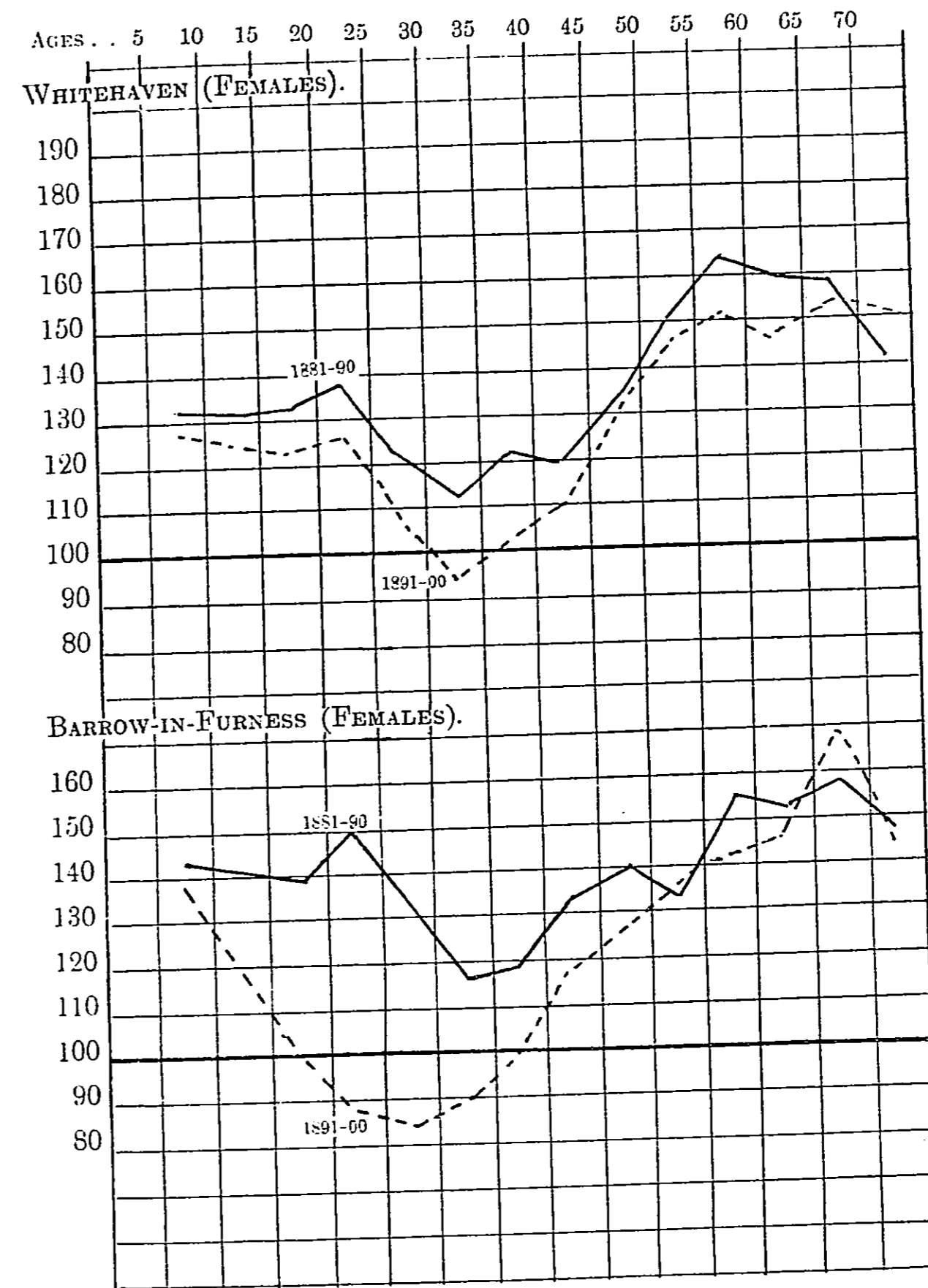
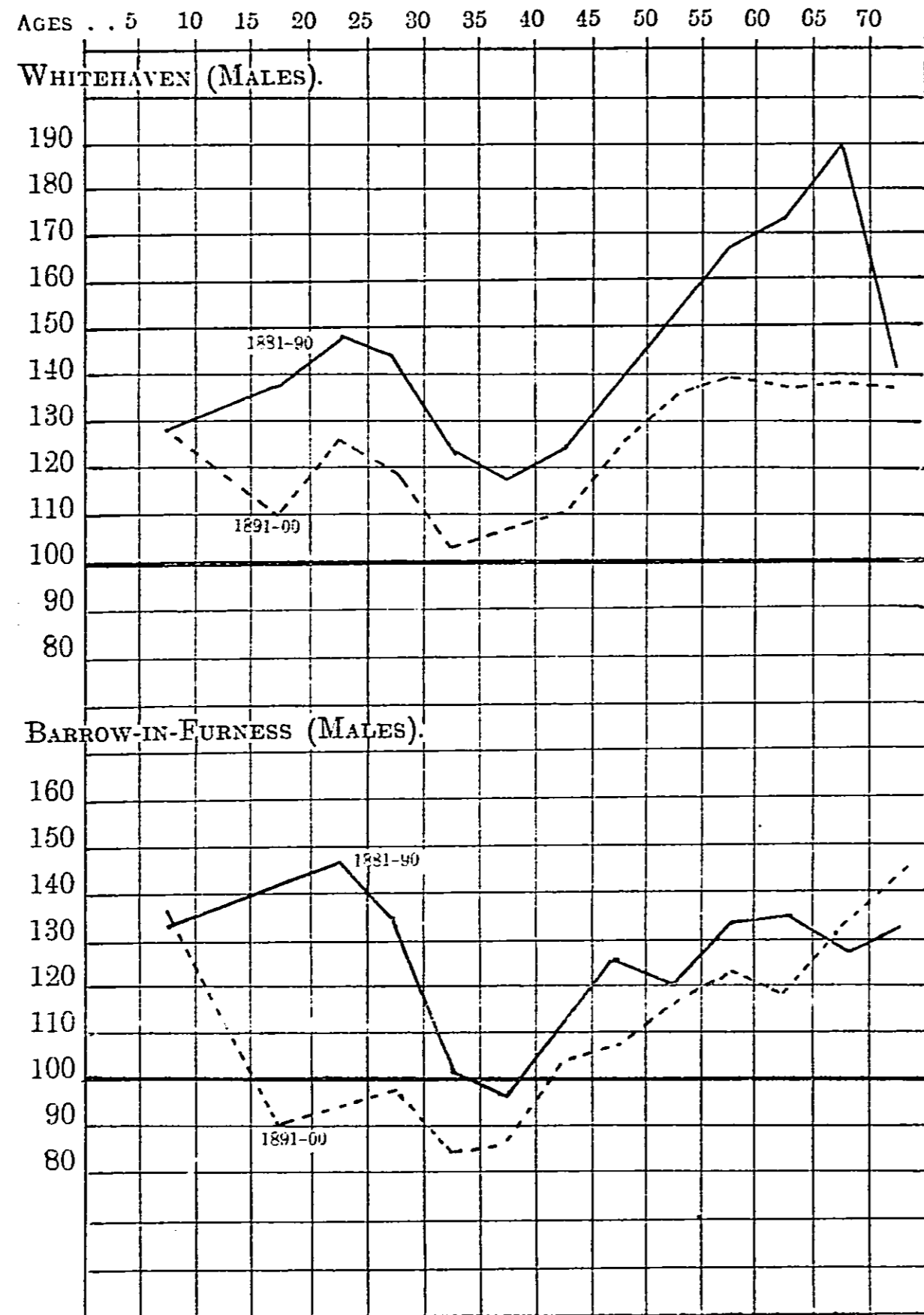
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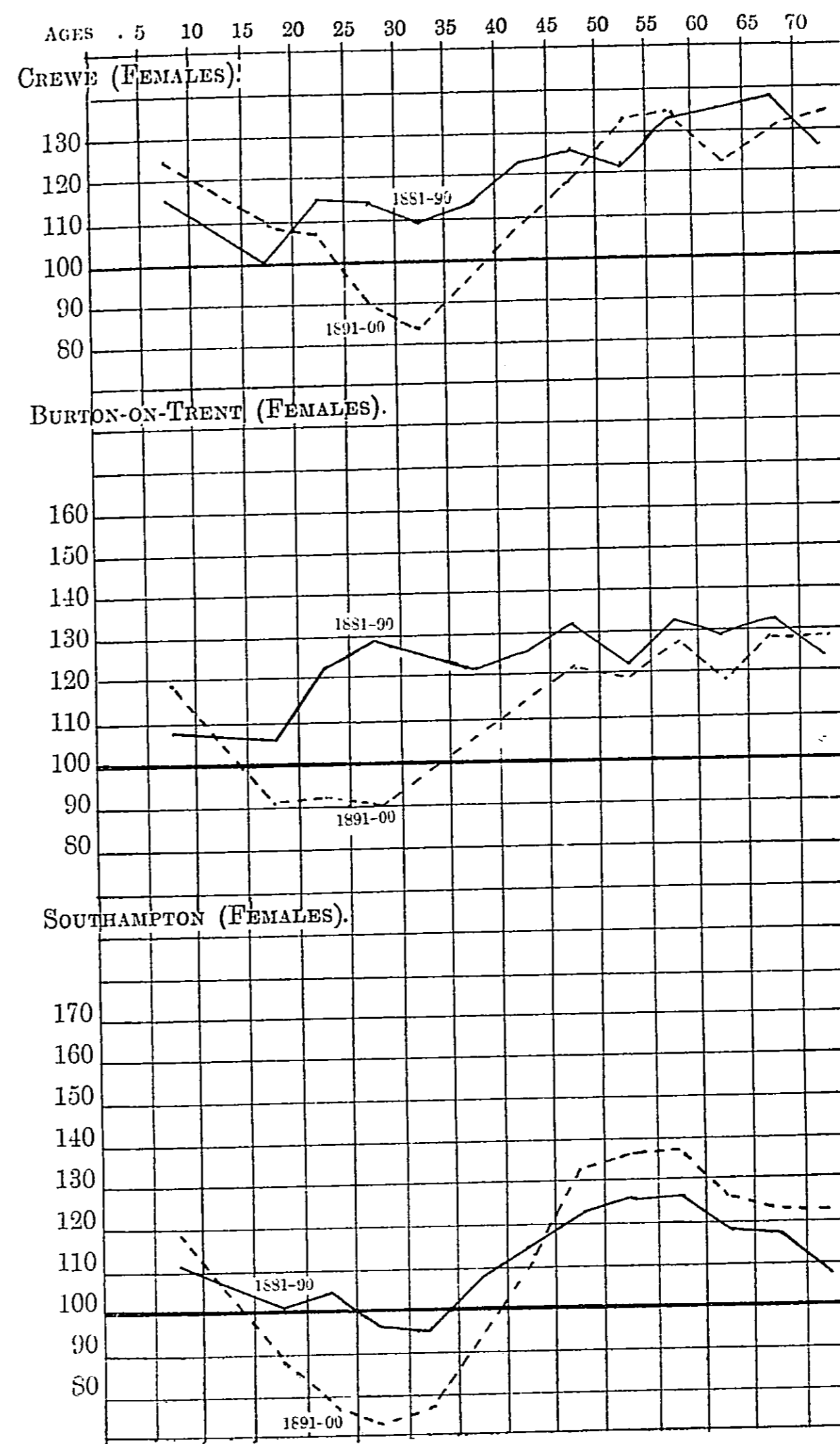
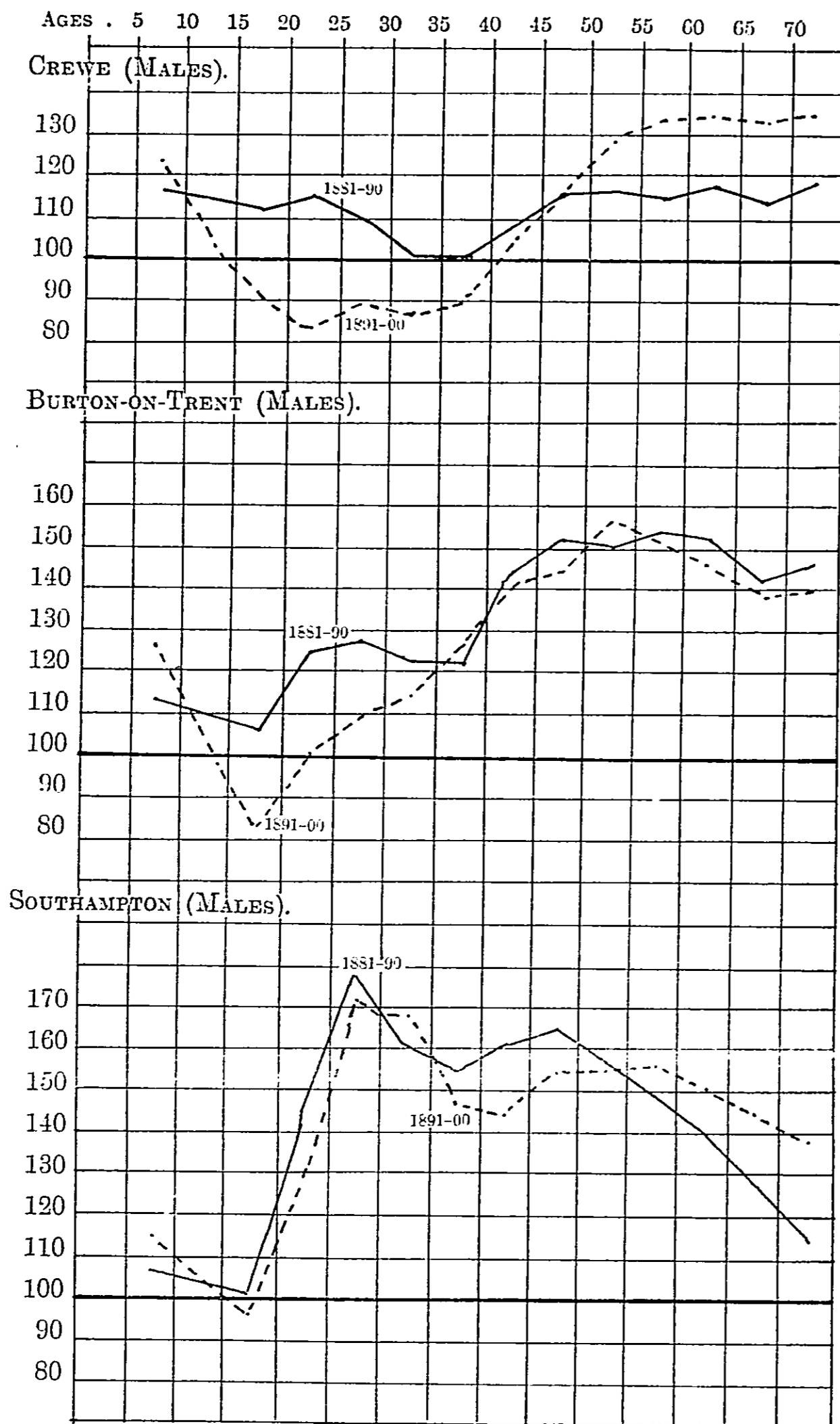


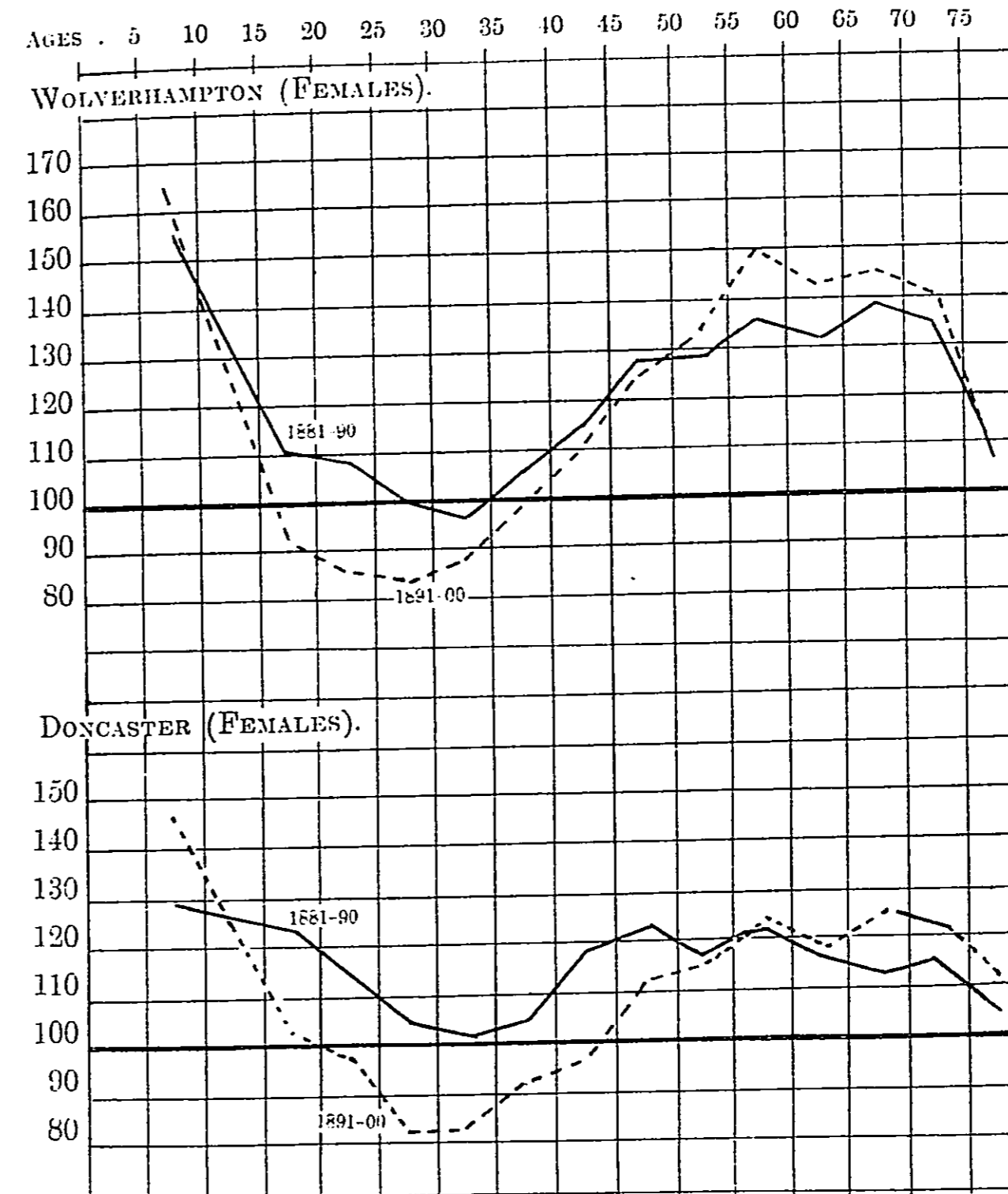
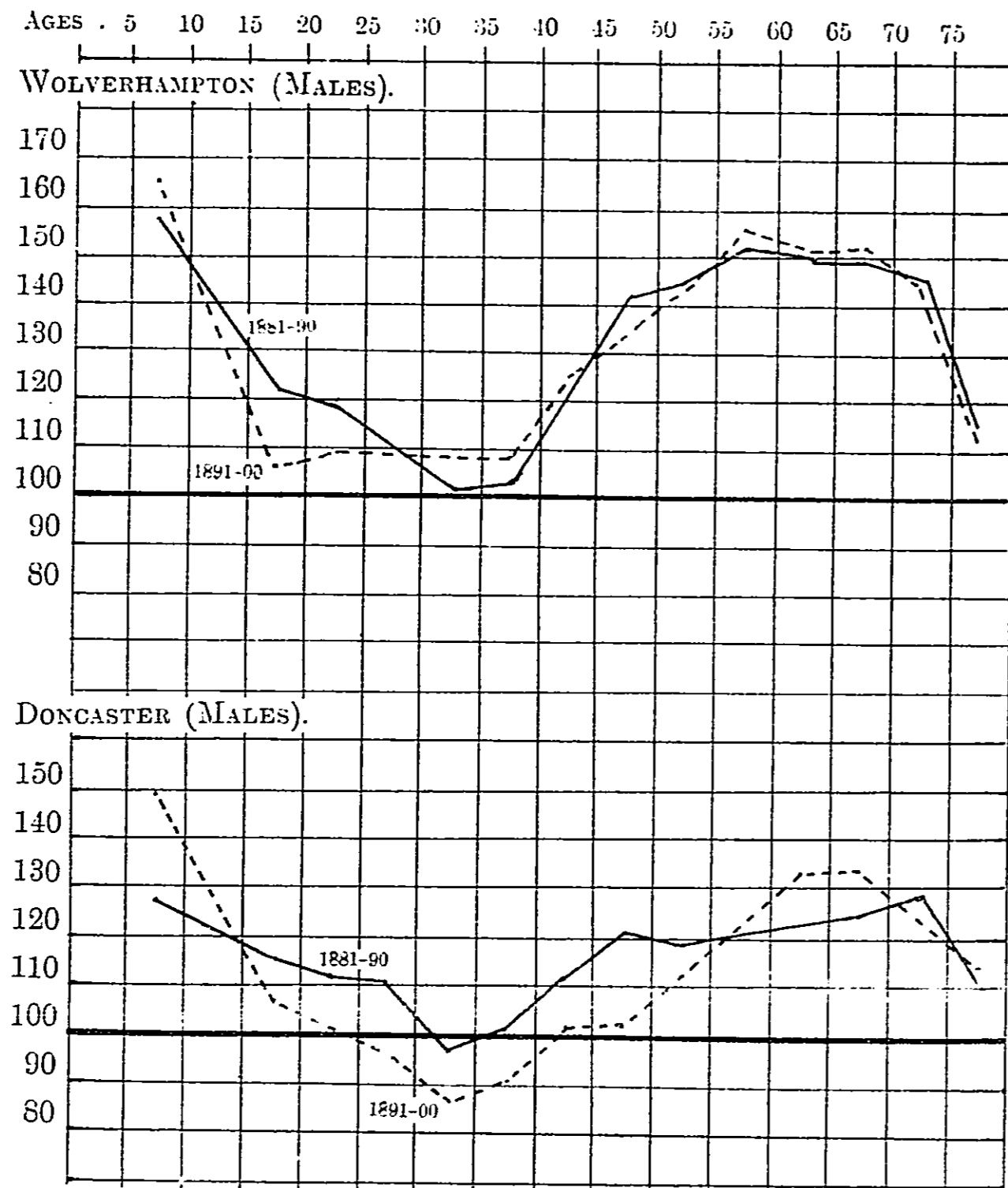
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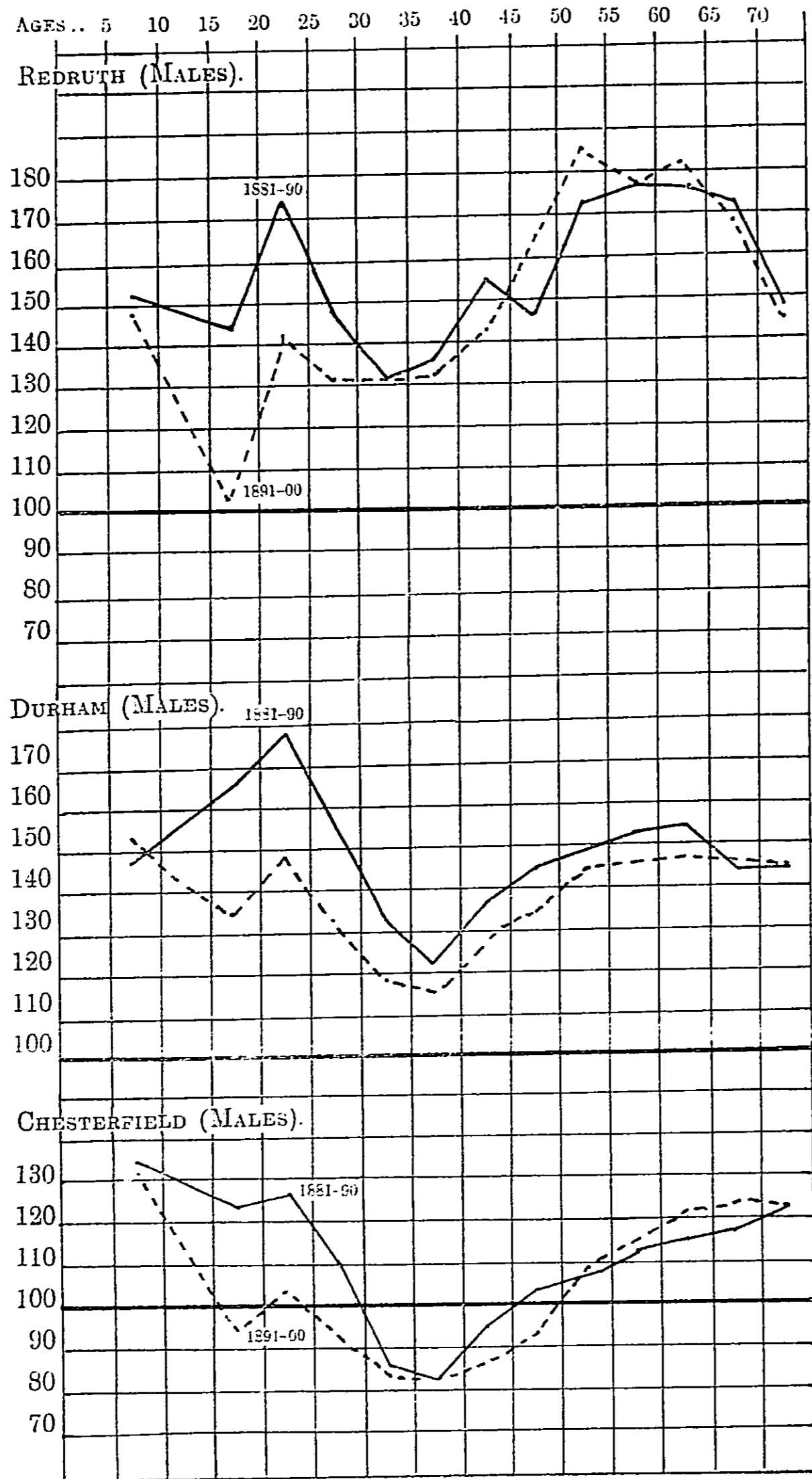




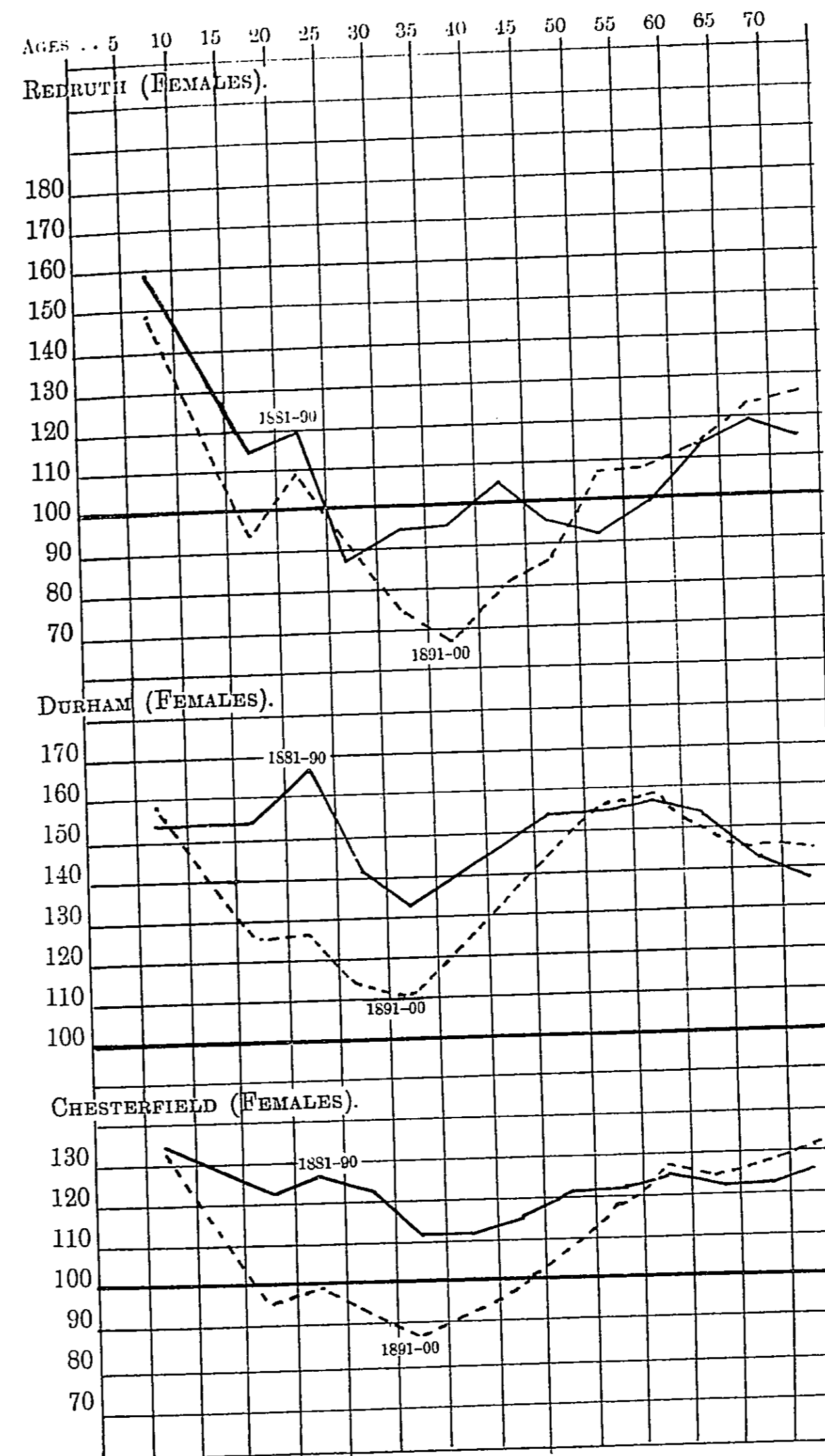




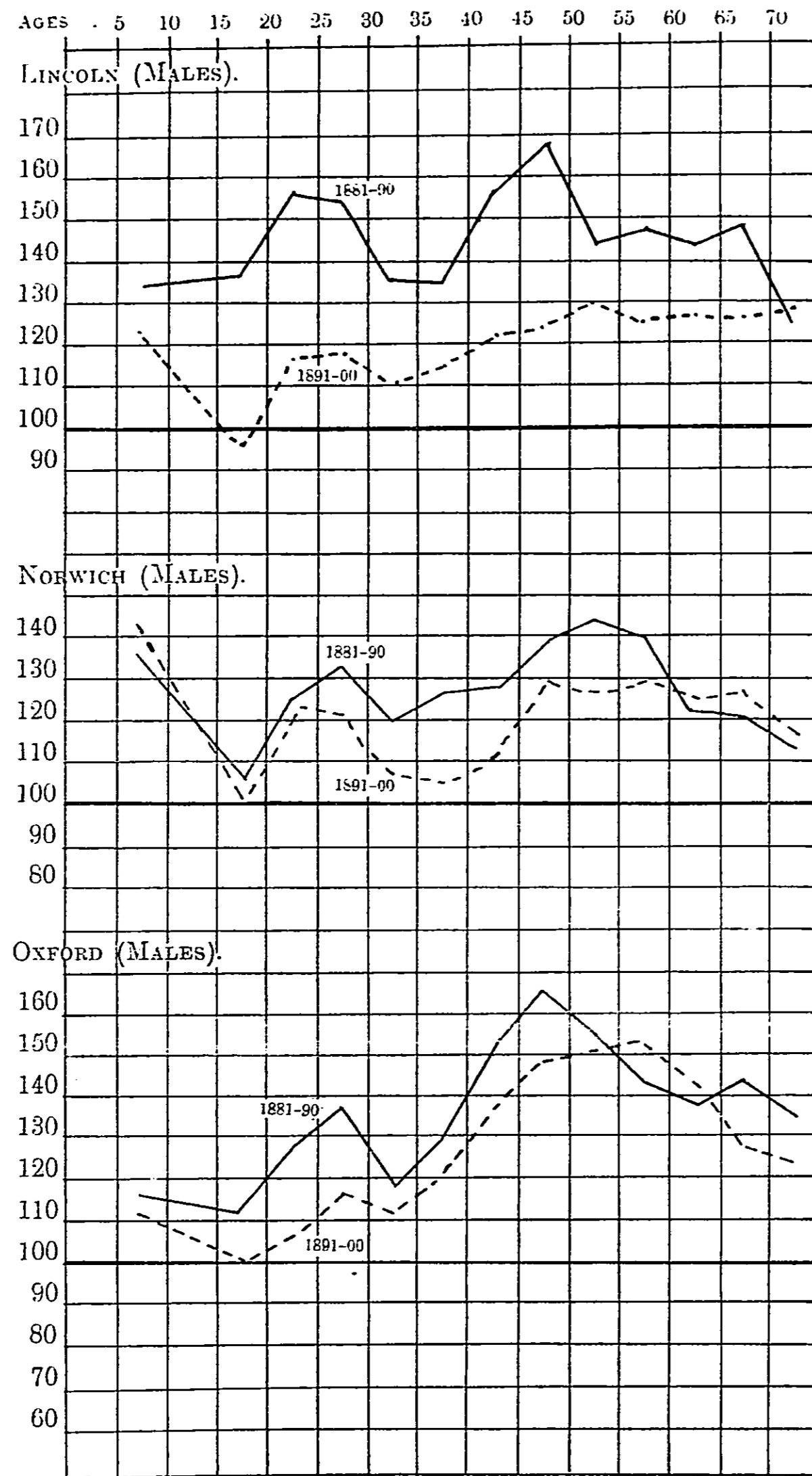
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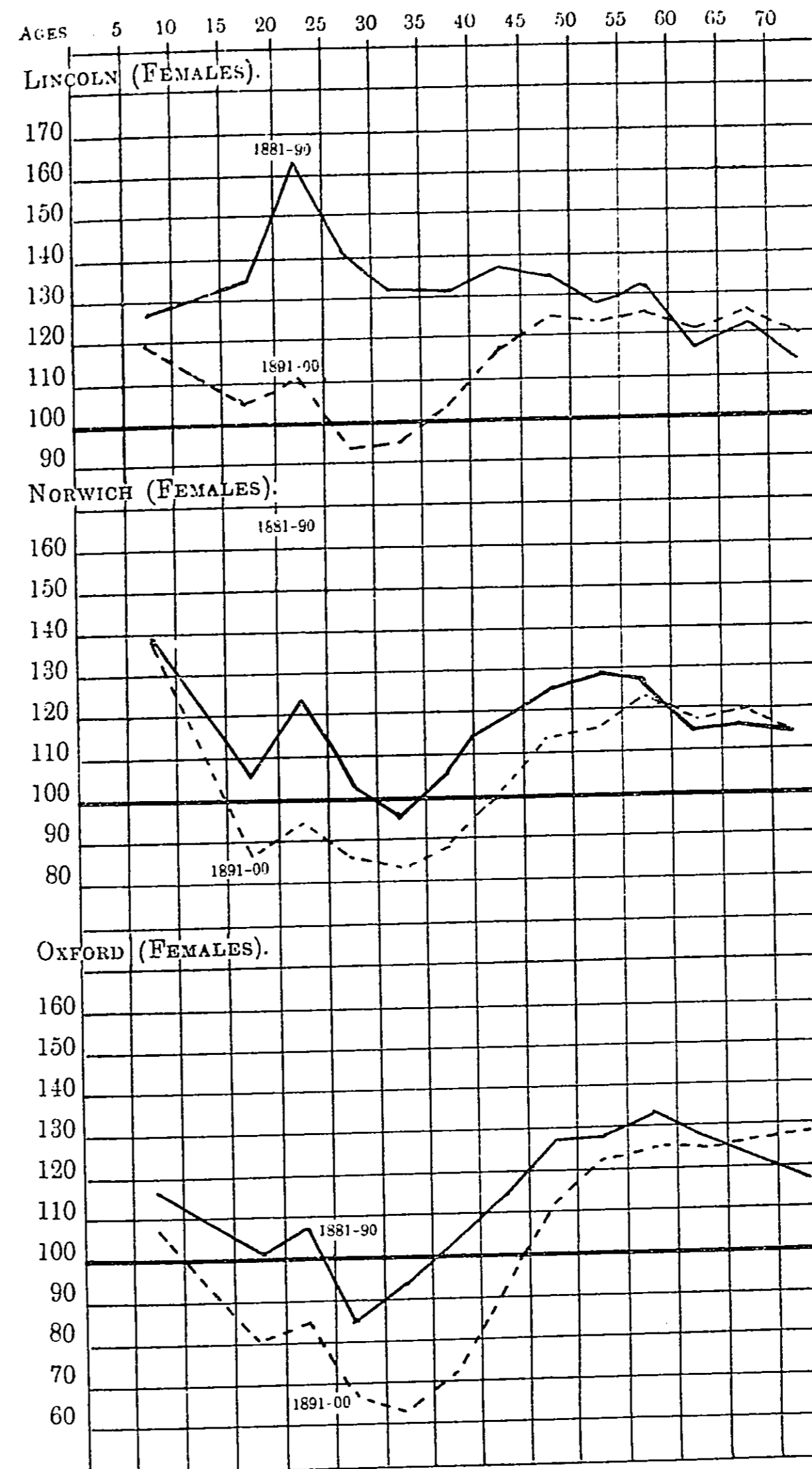
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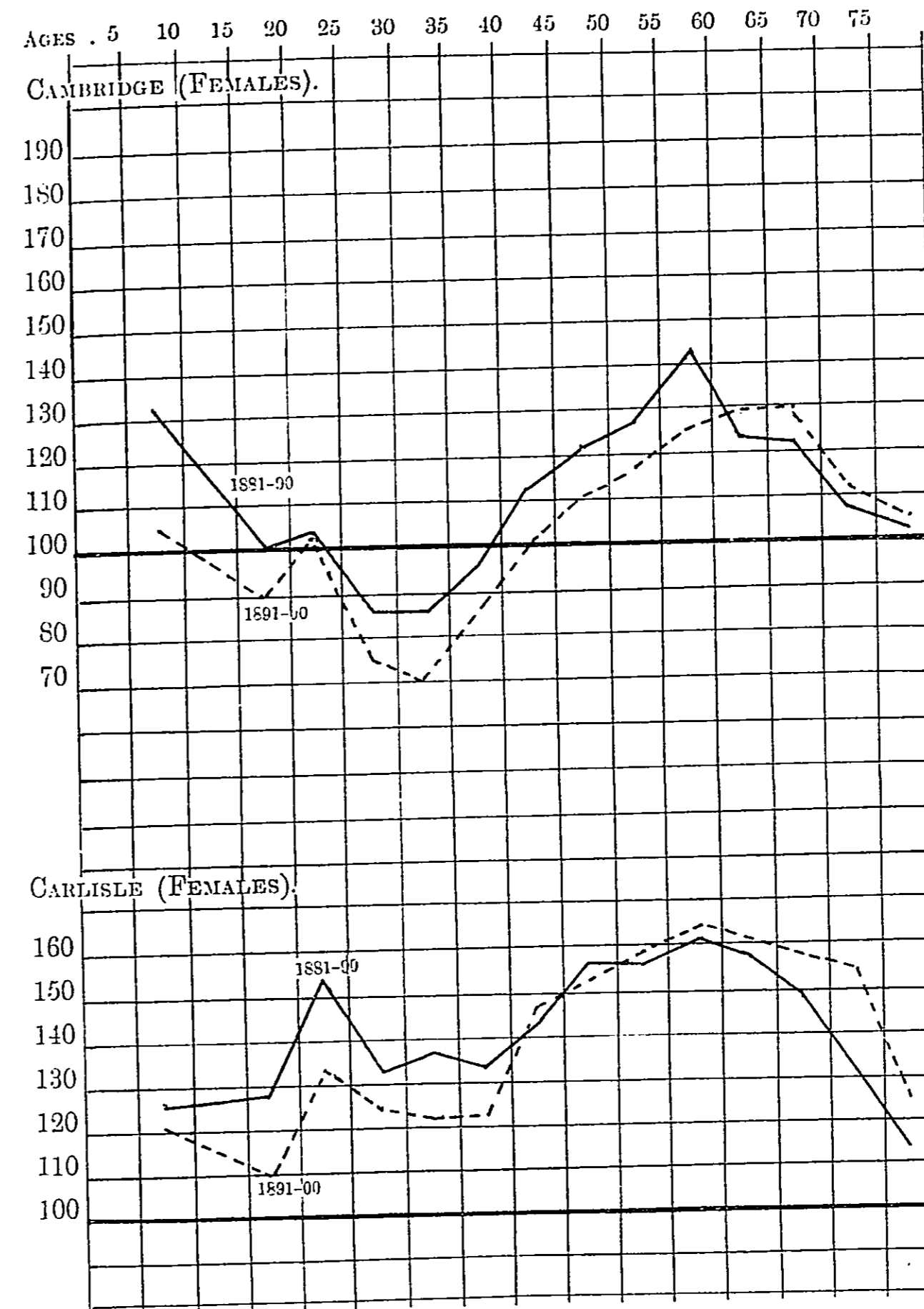
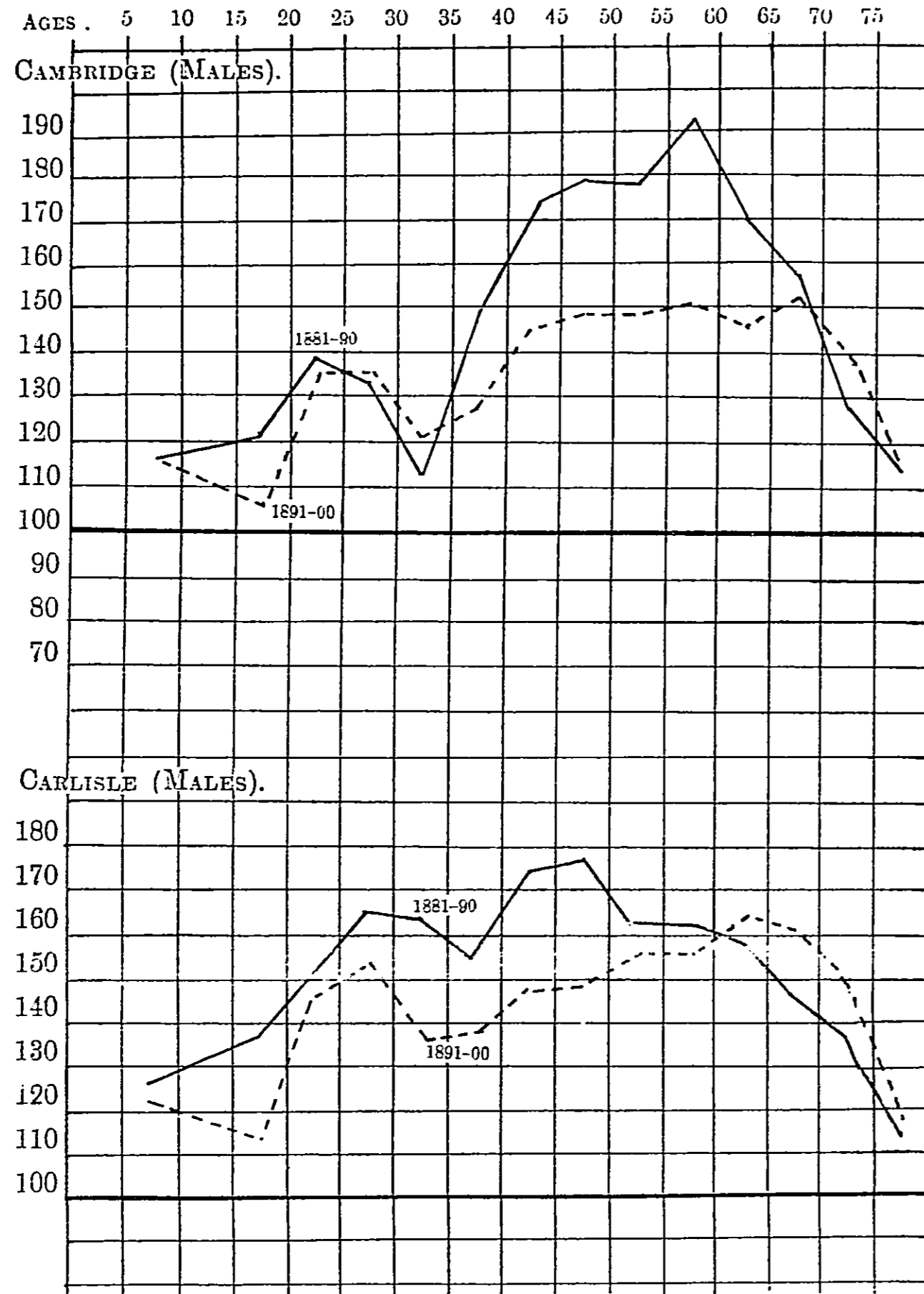


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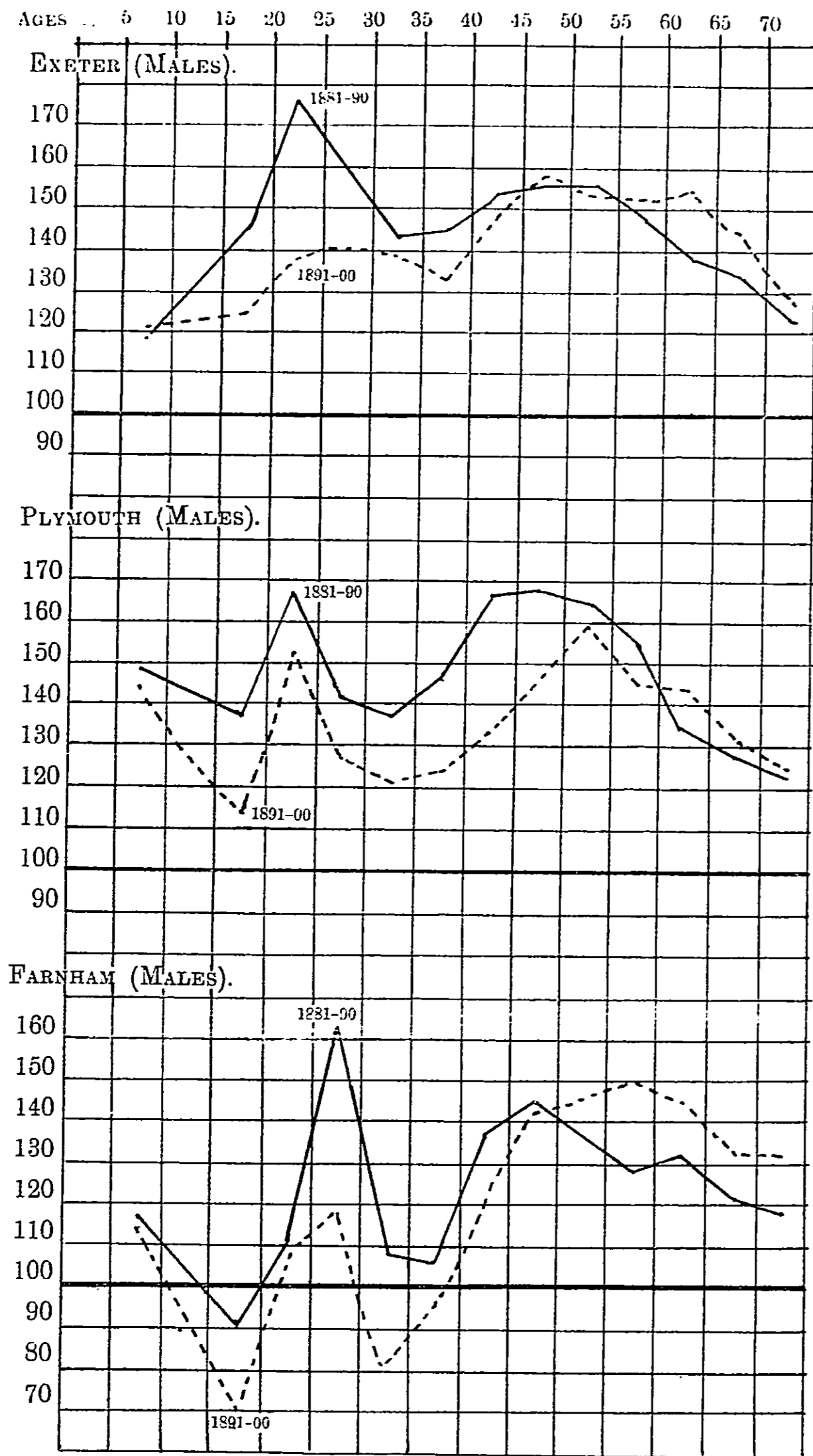


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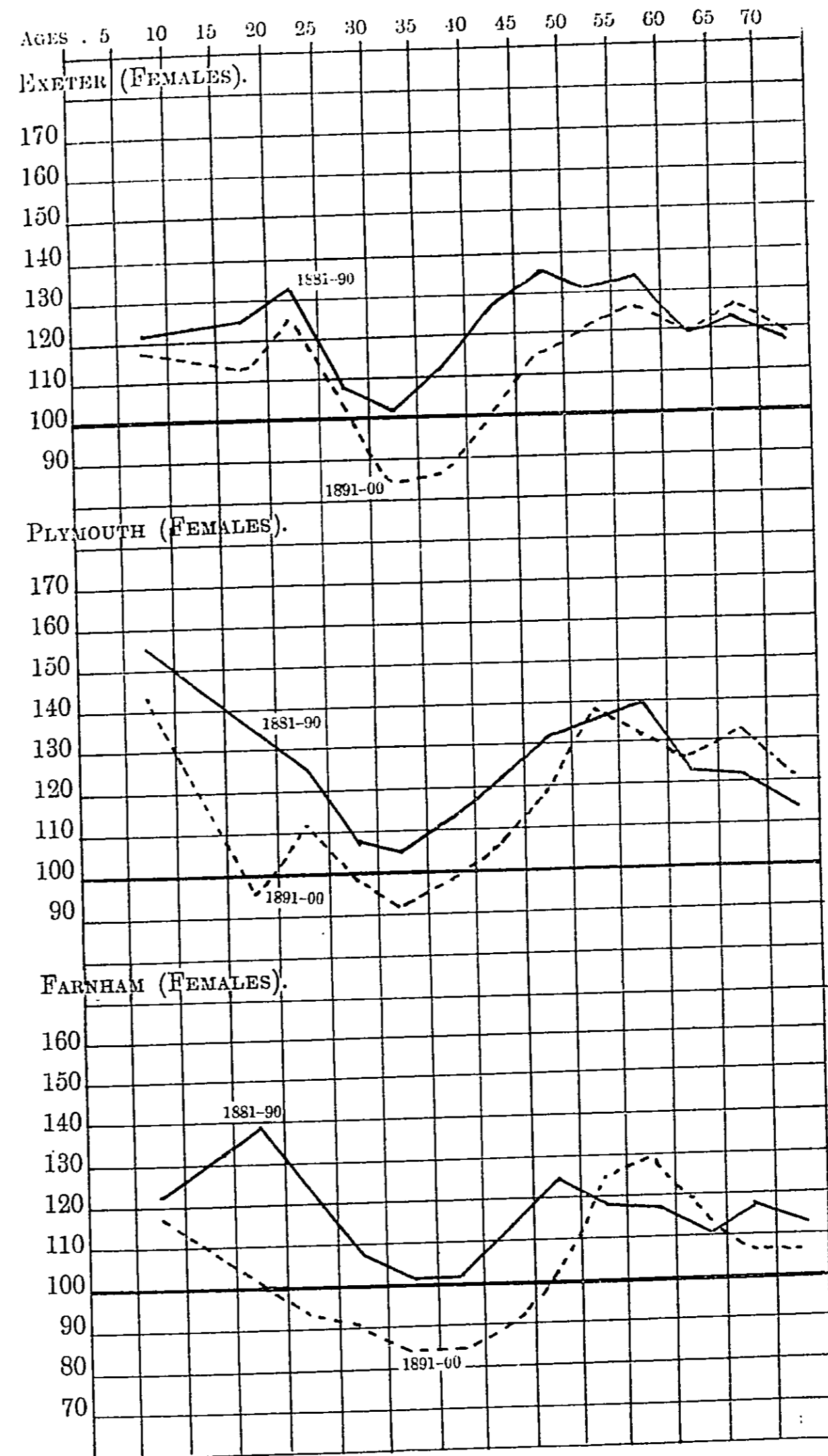


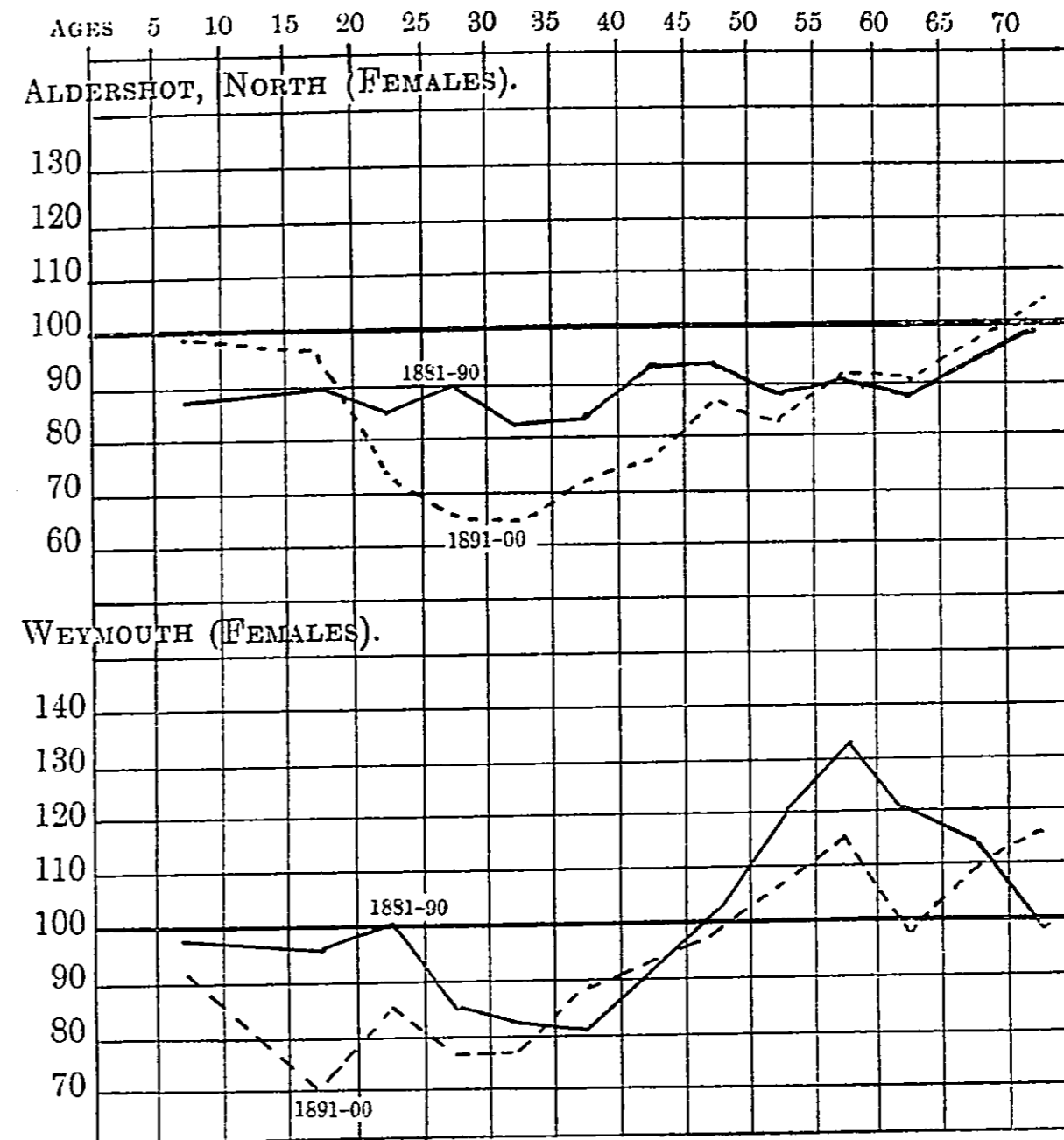
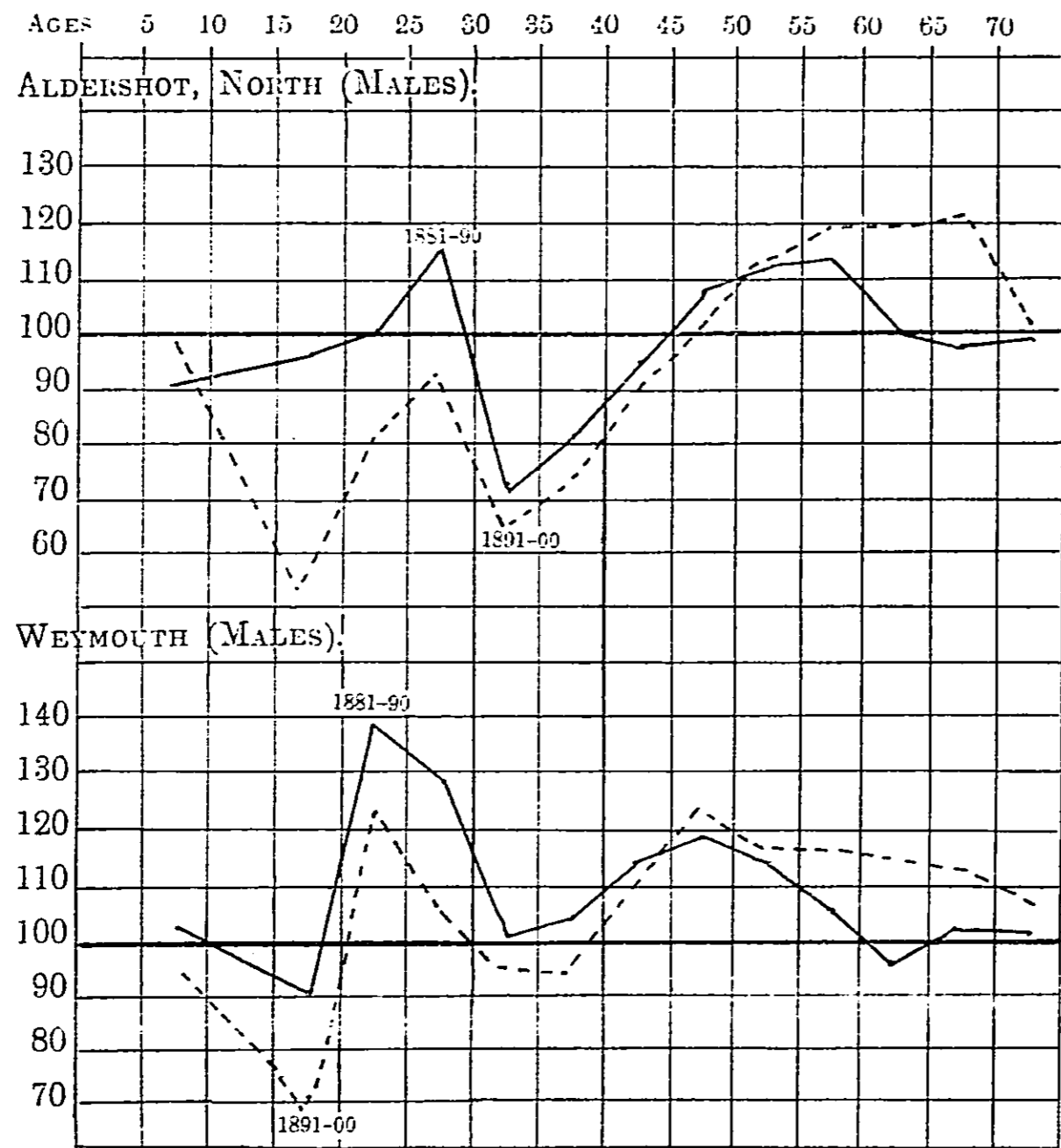


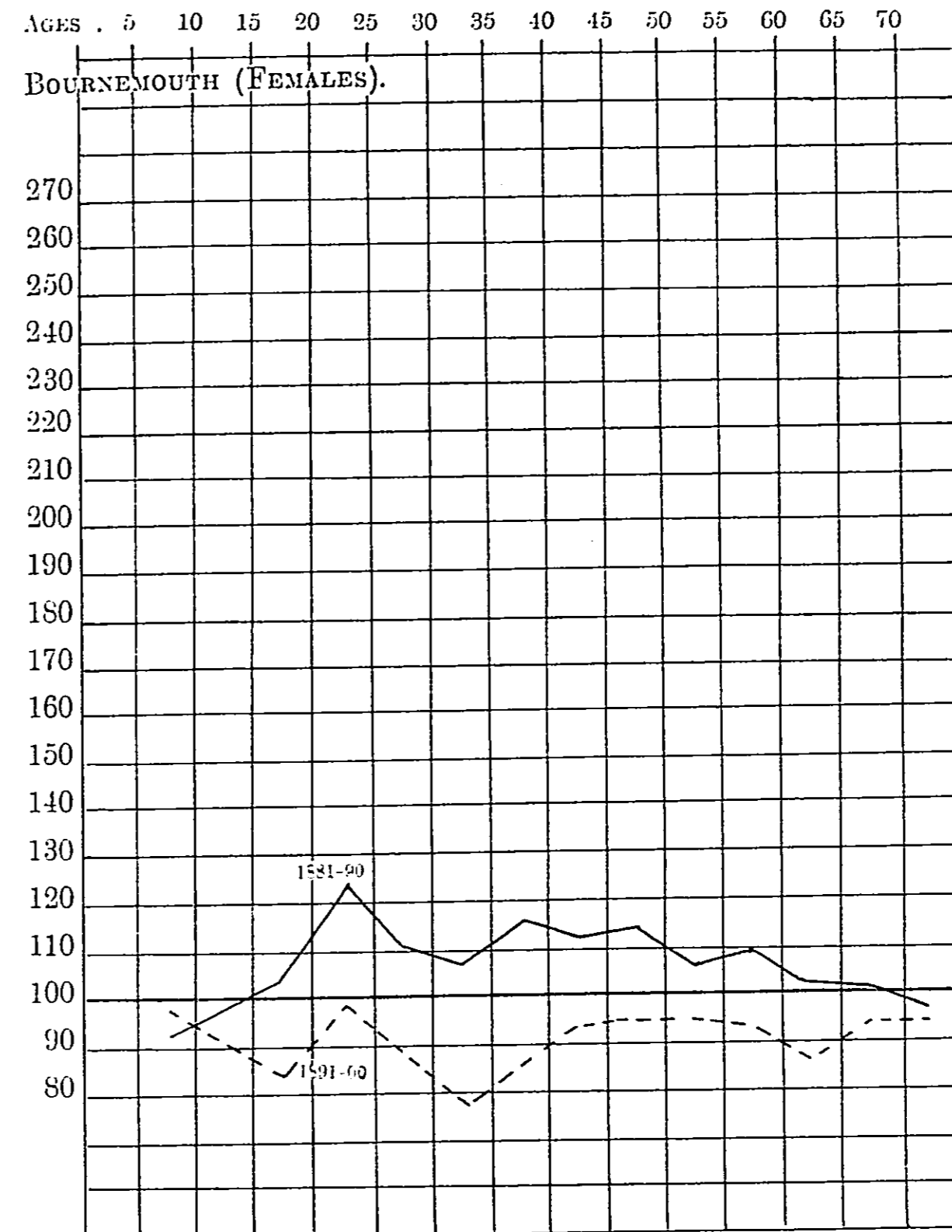
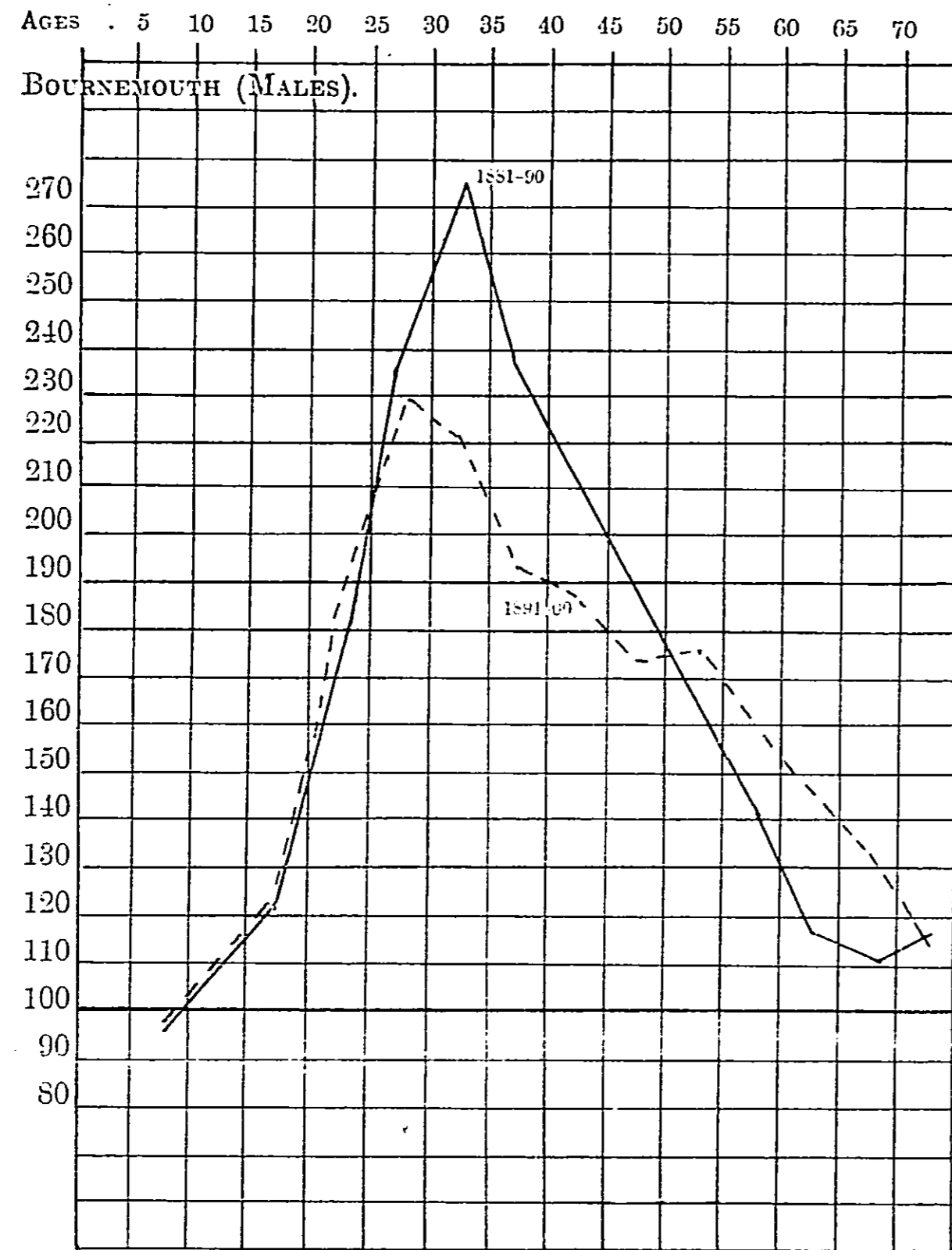
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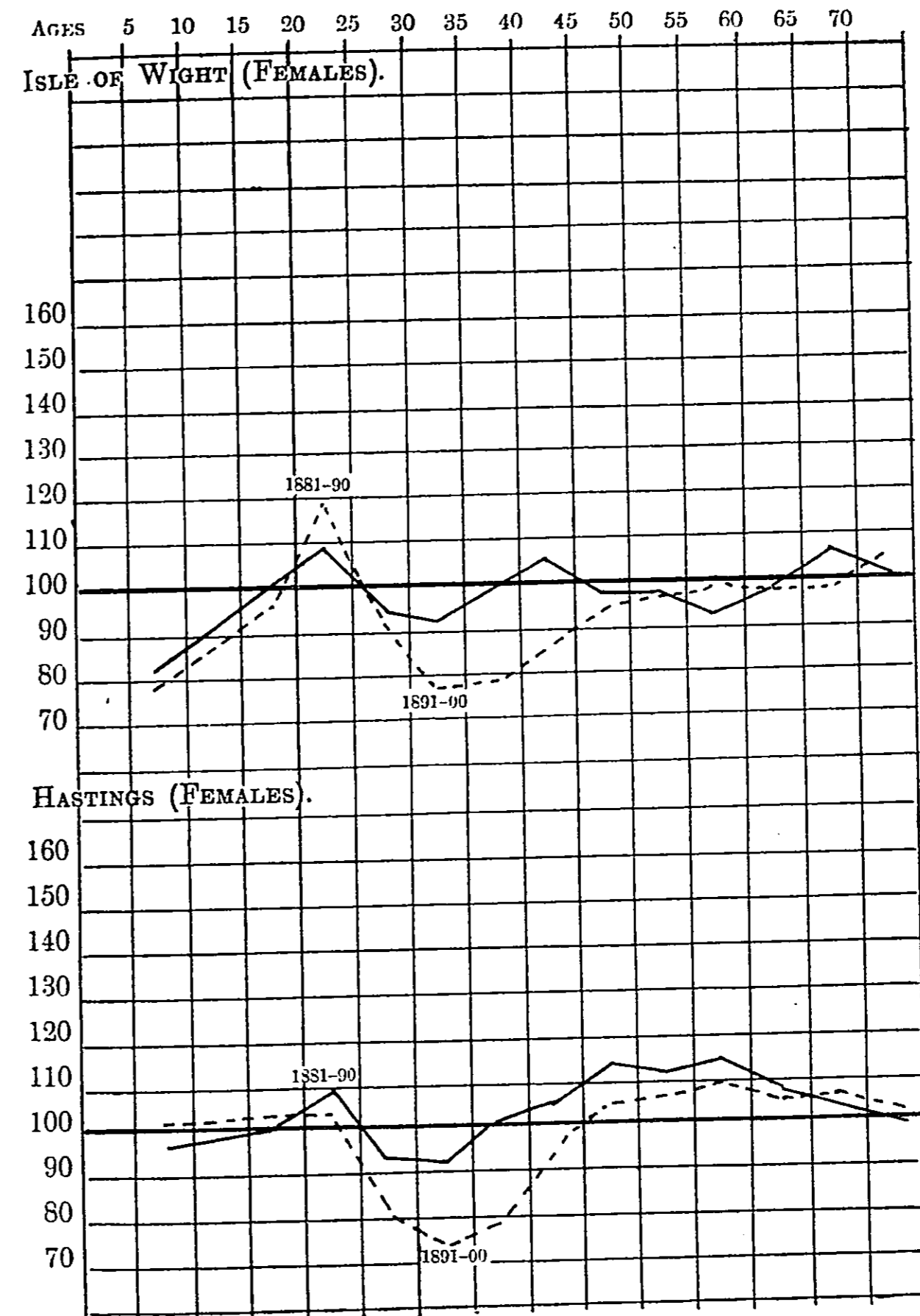
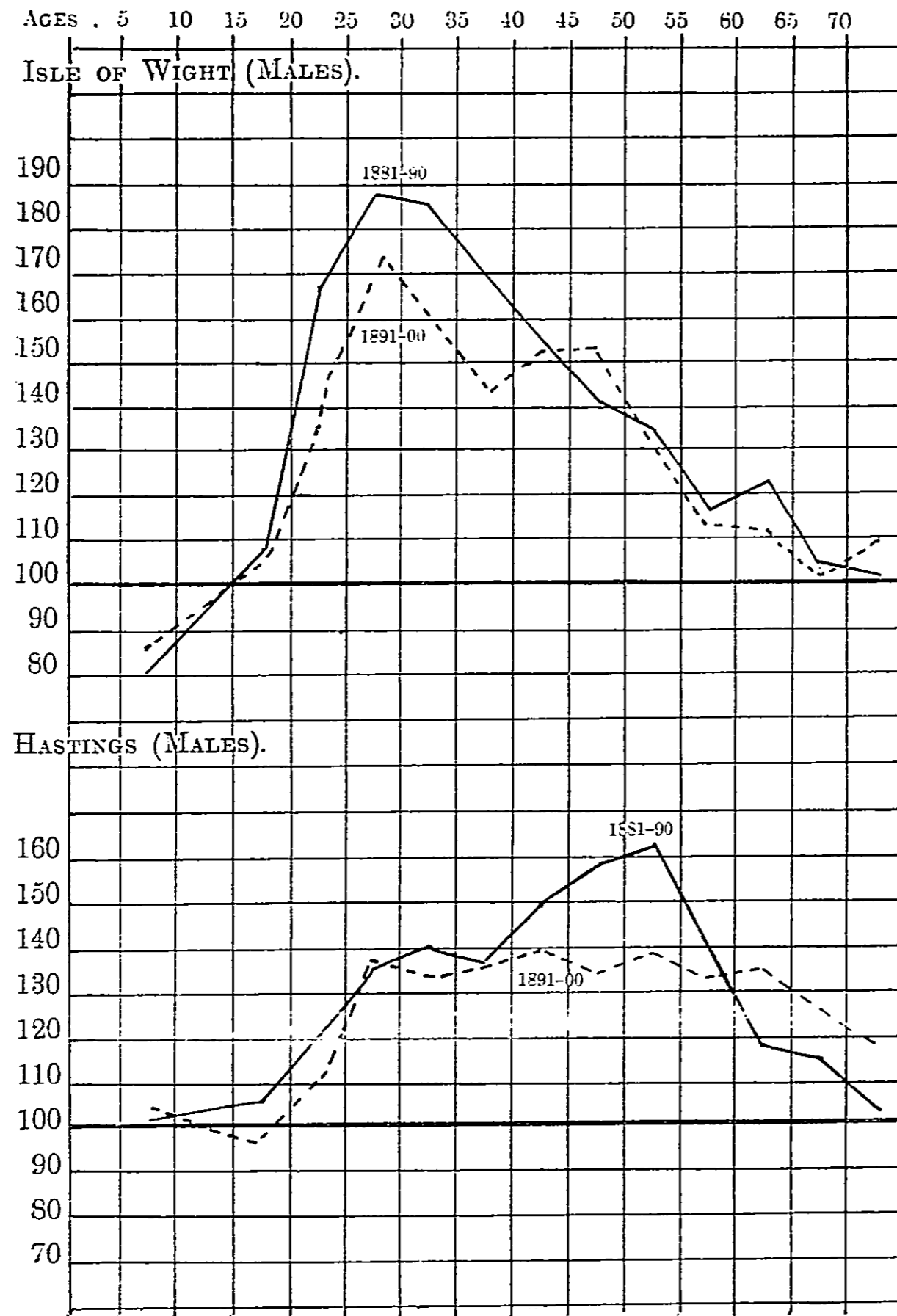


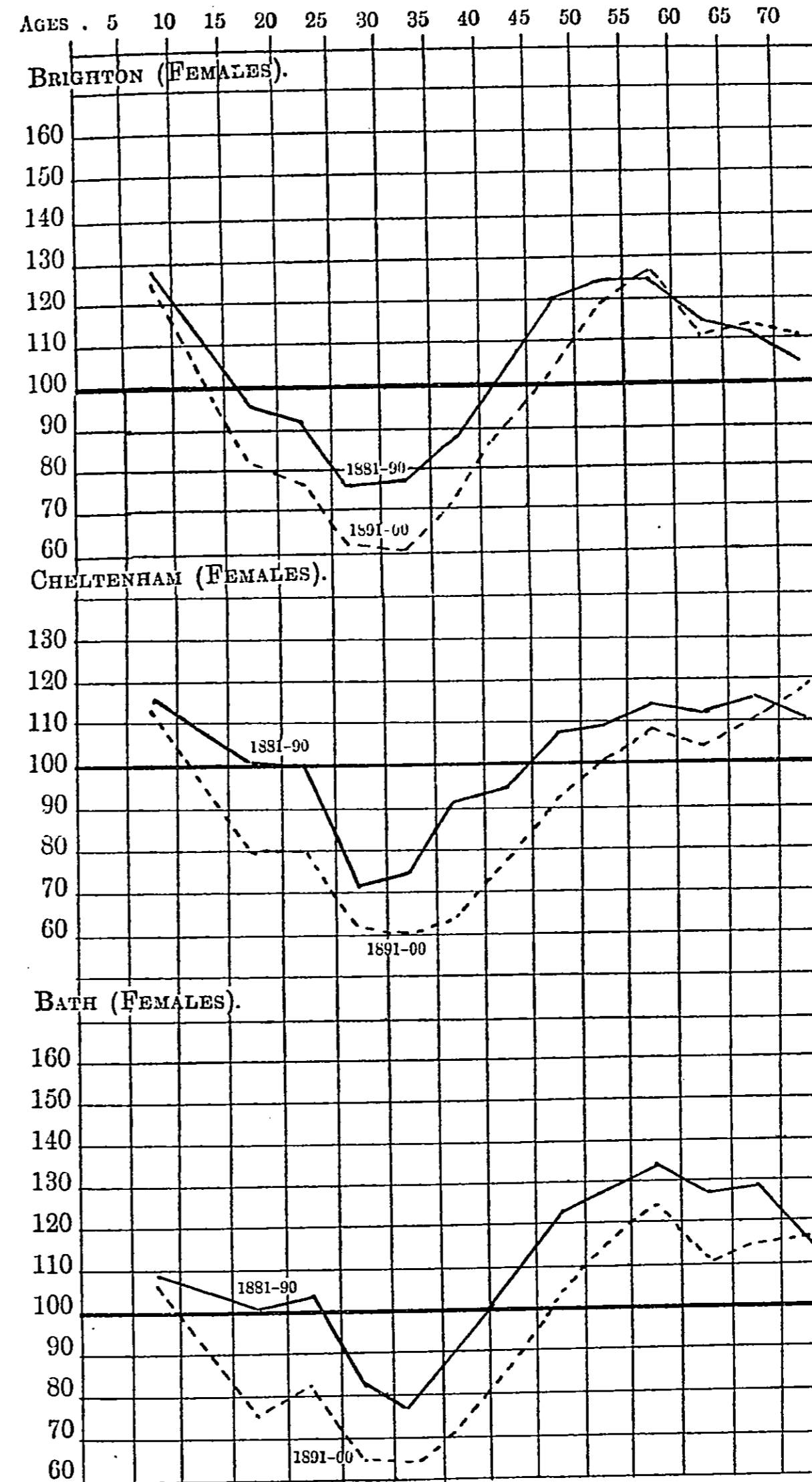
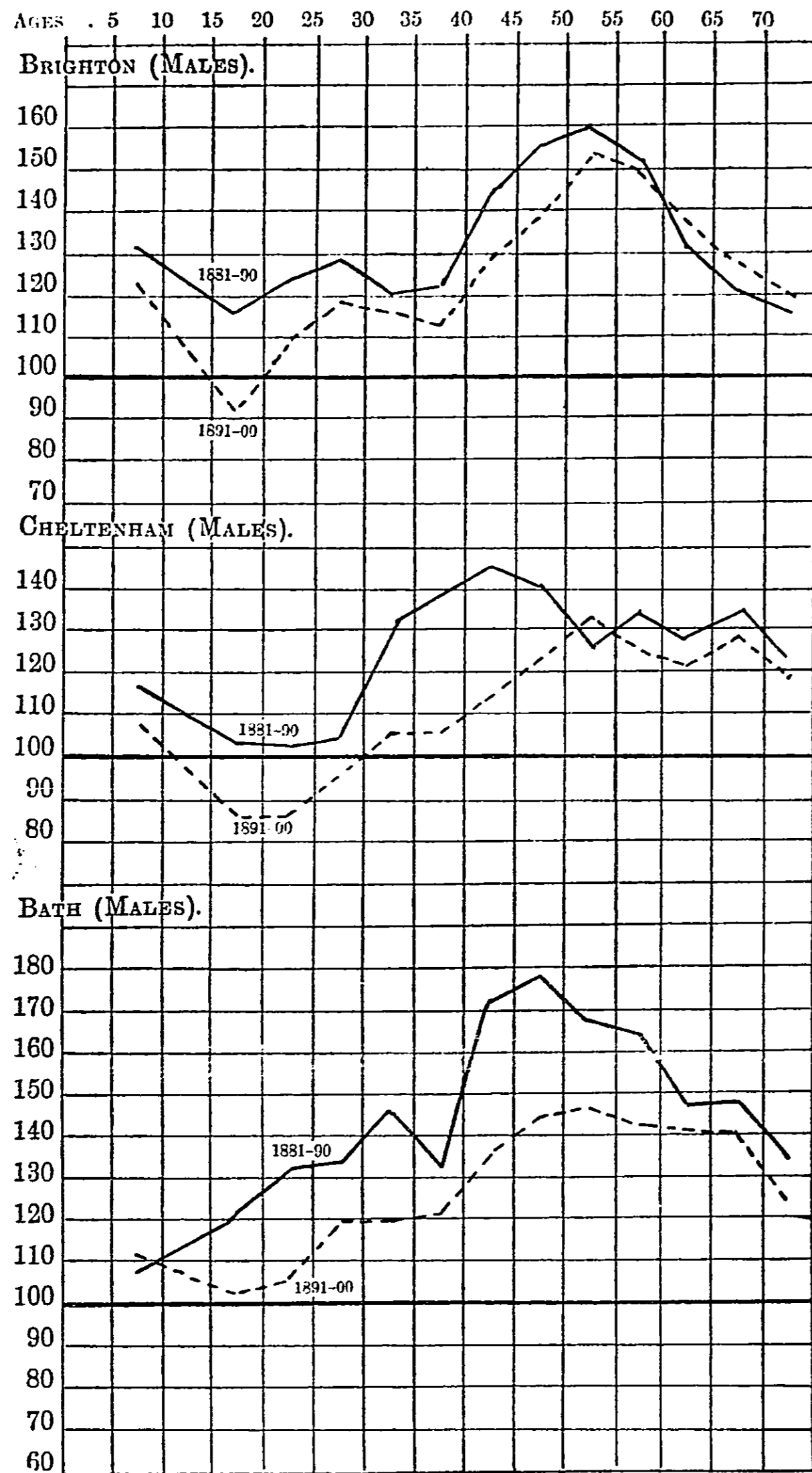
Mortality Graphs.

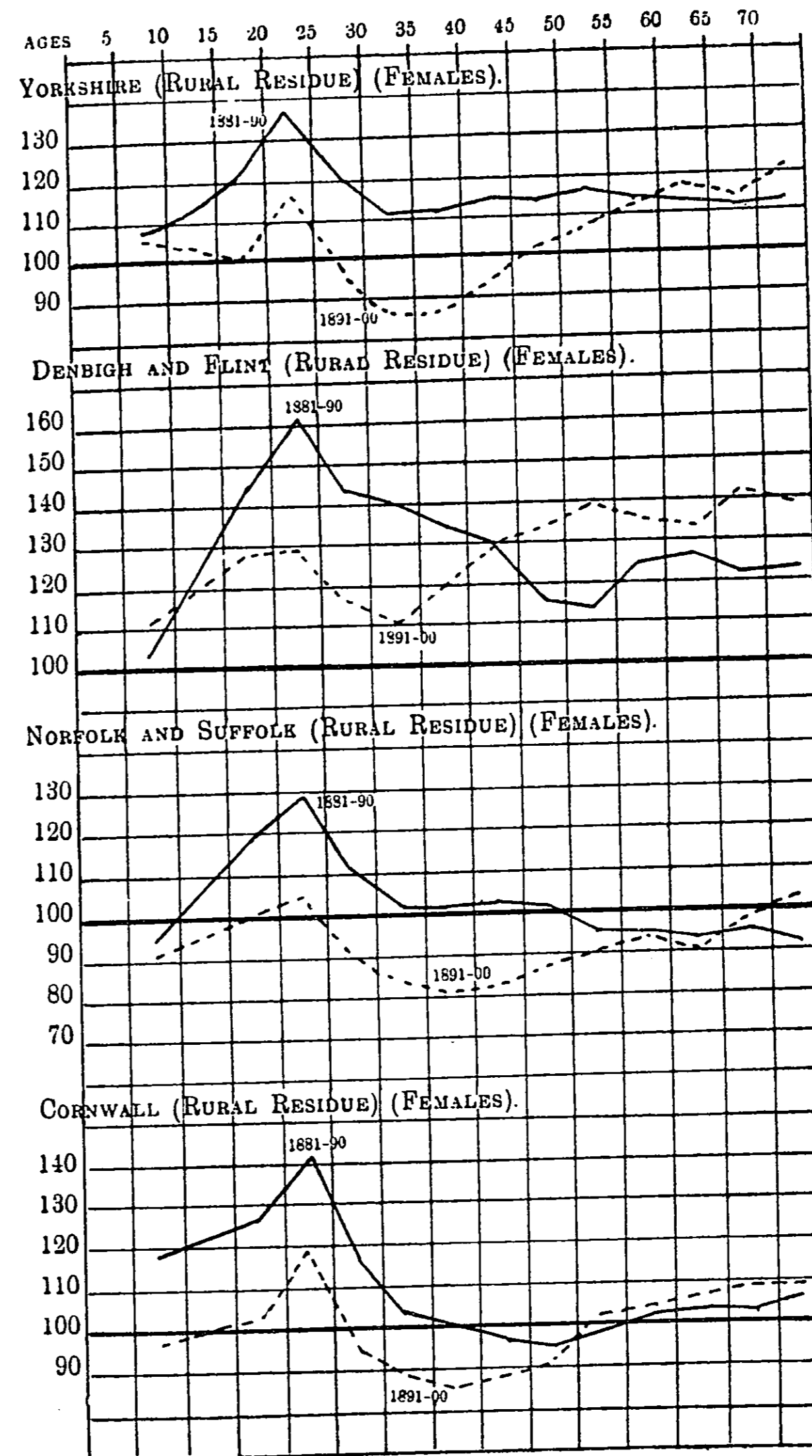
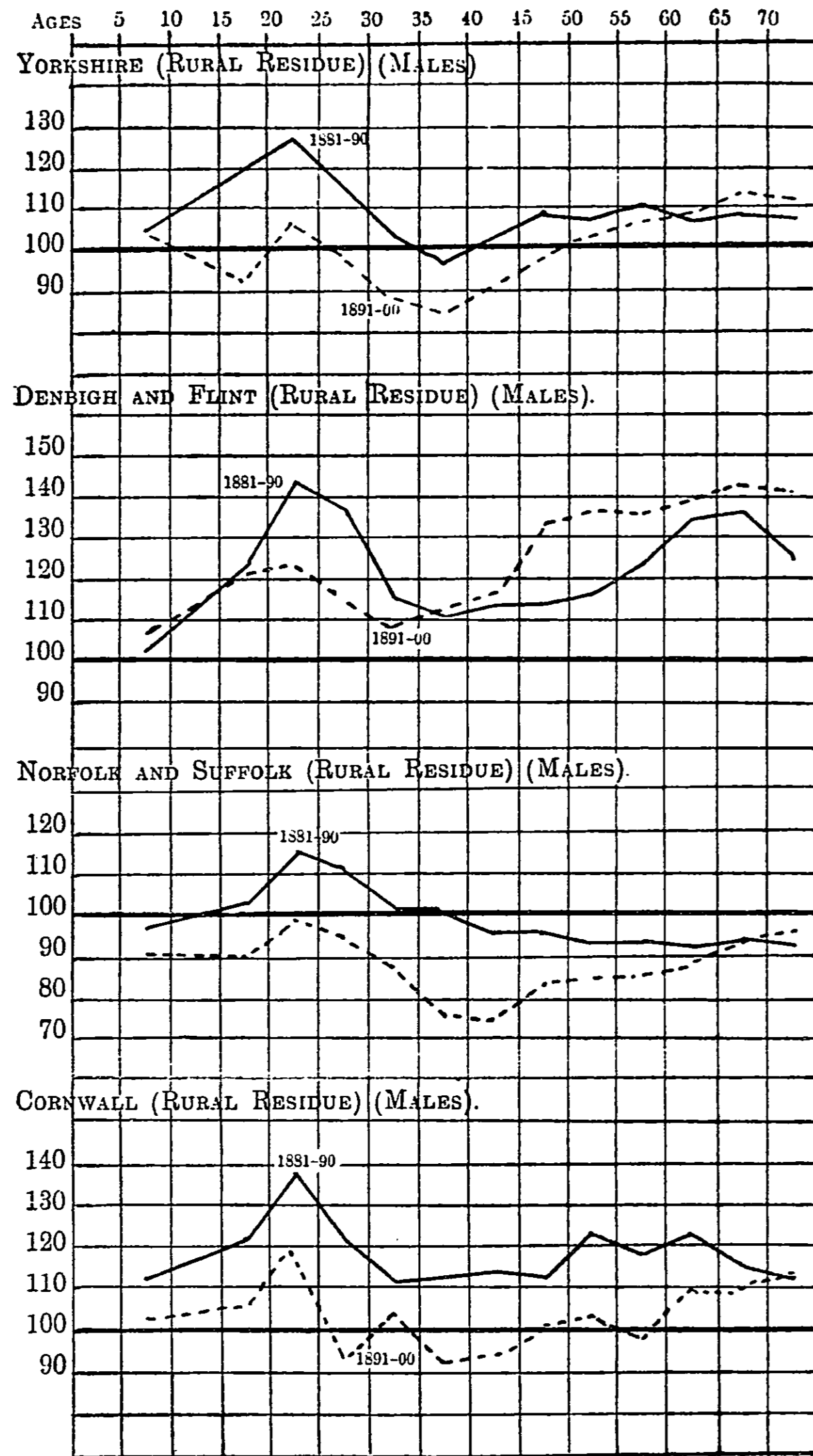




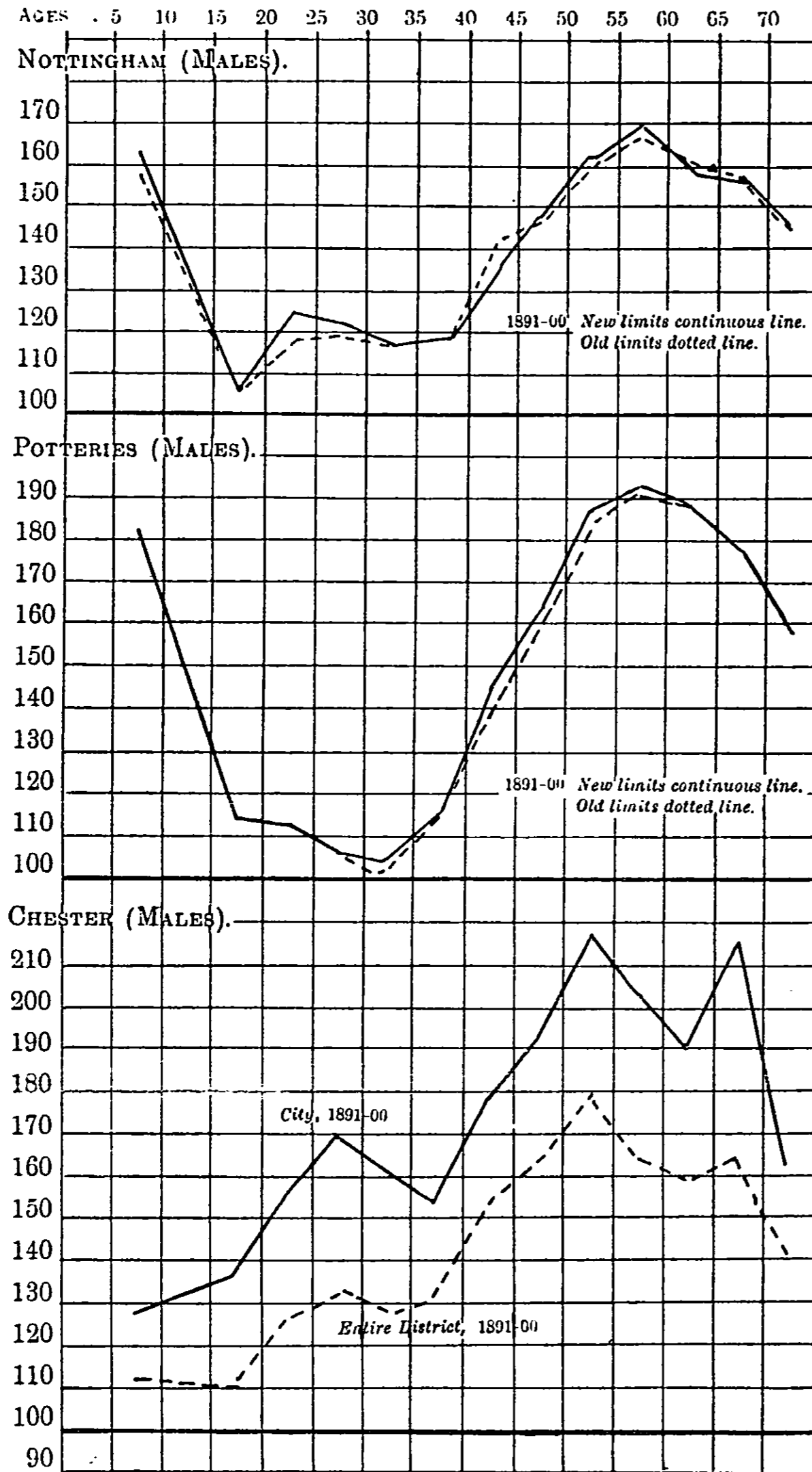




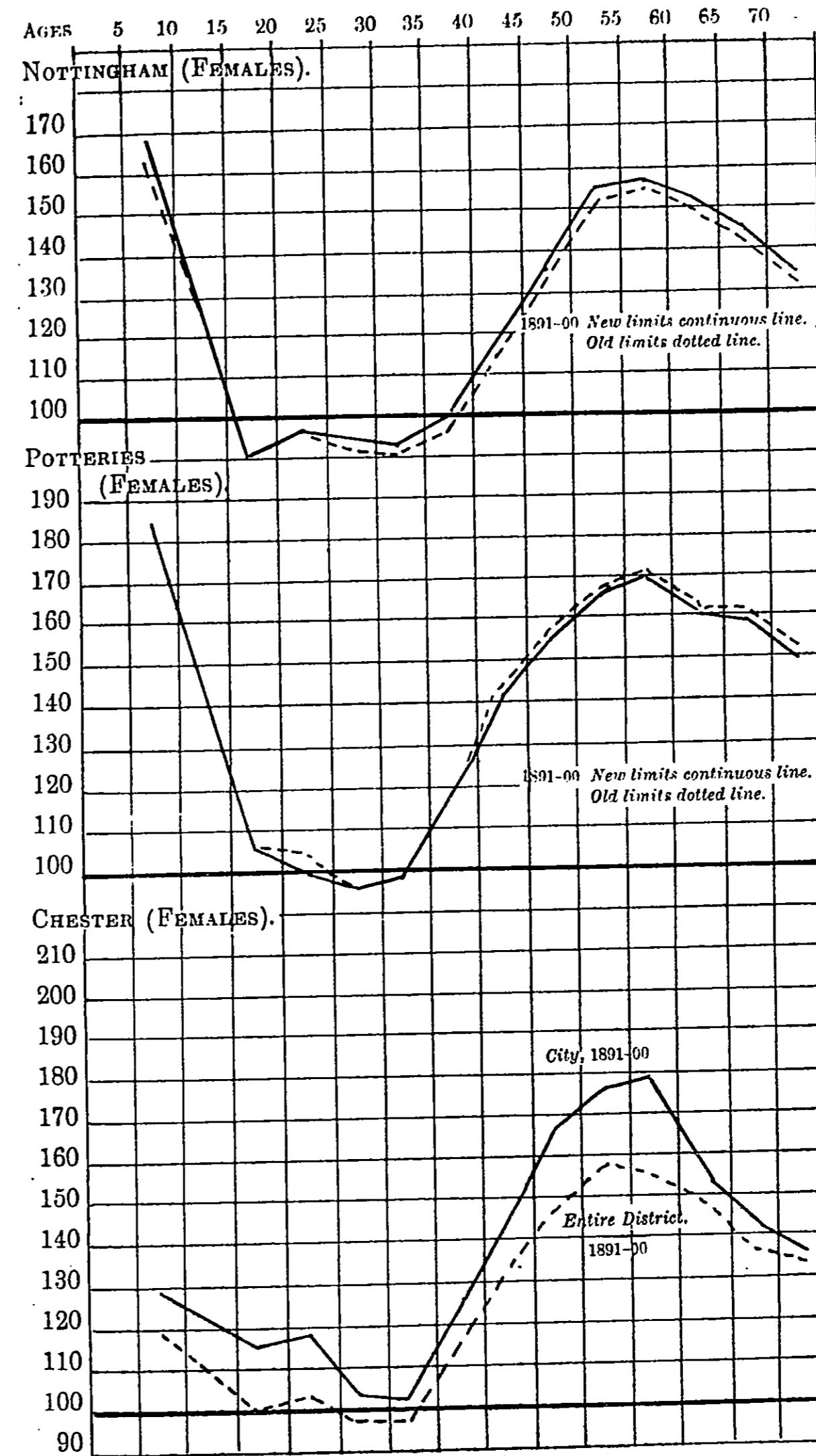




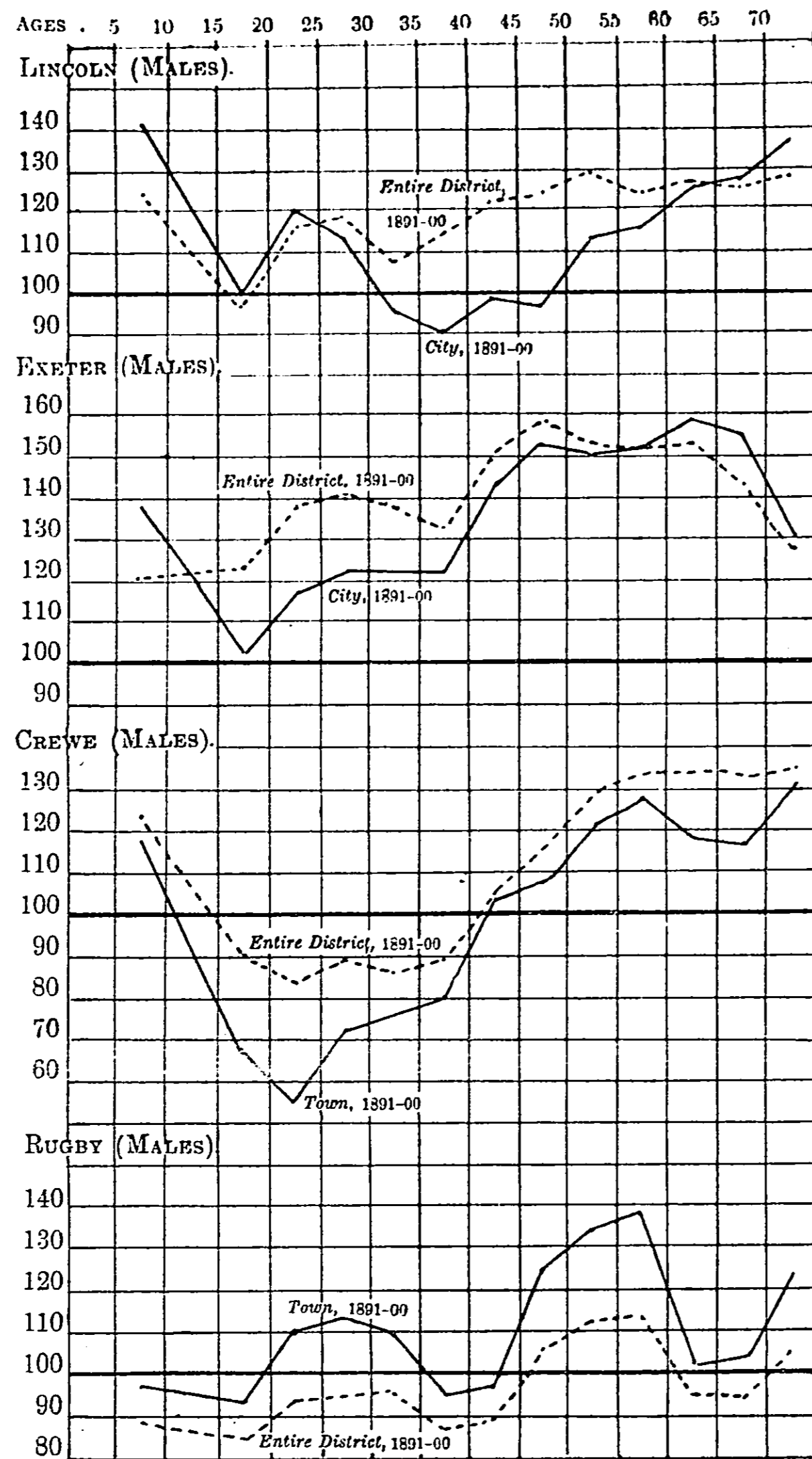
Mortality Graphs.



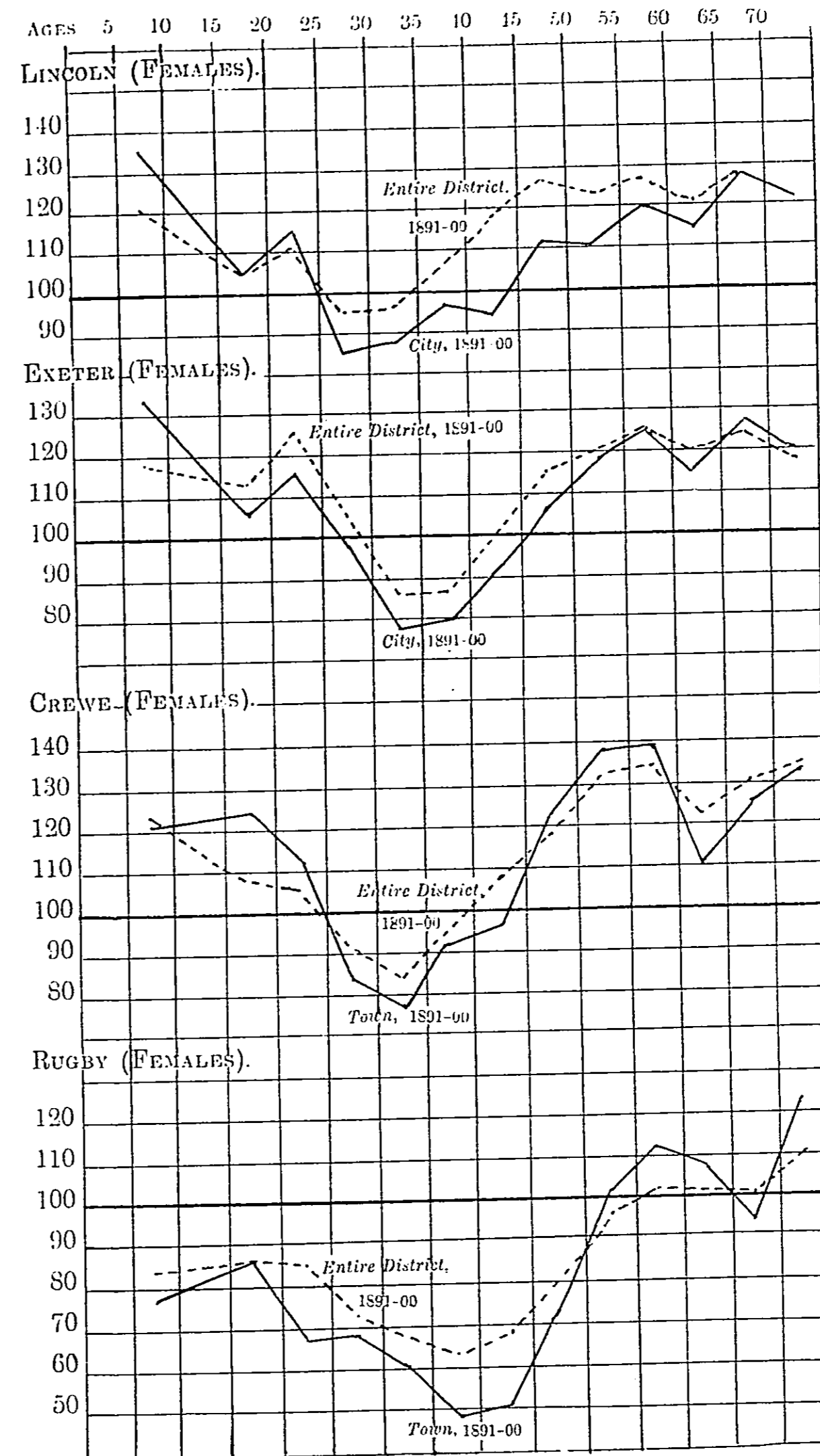
Mortality Graphs.



Mortality Graphs.



Mortality Graphs.



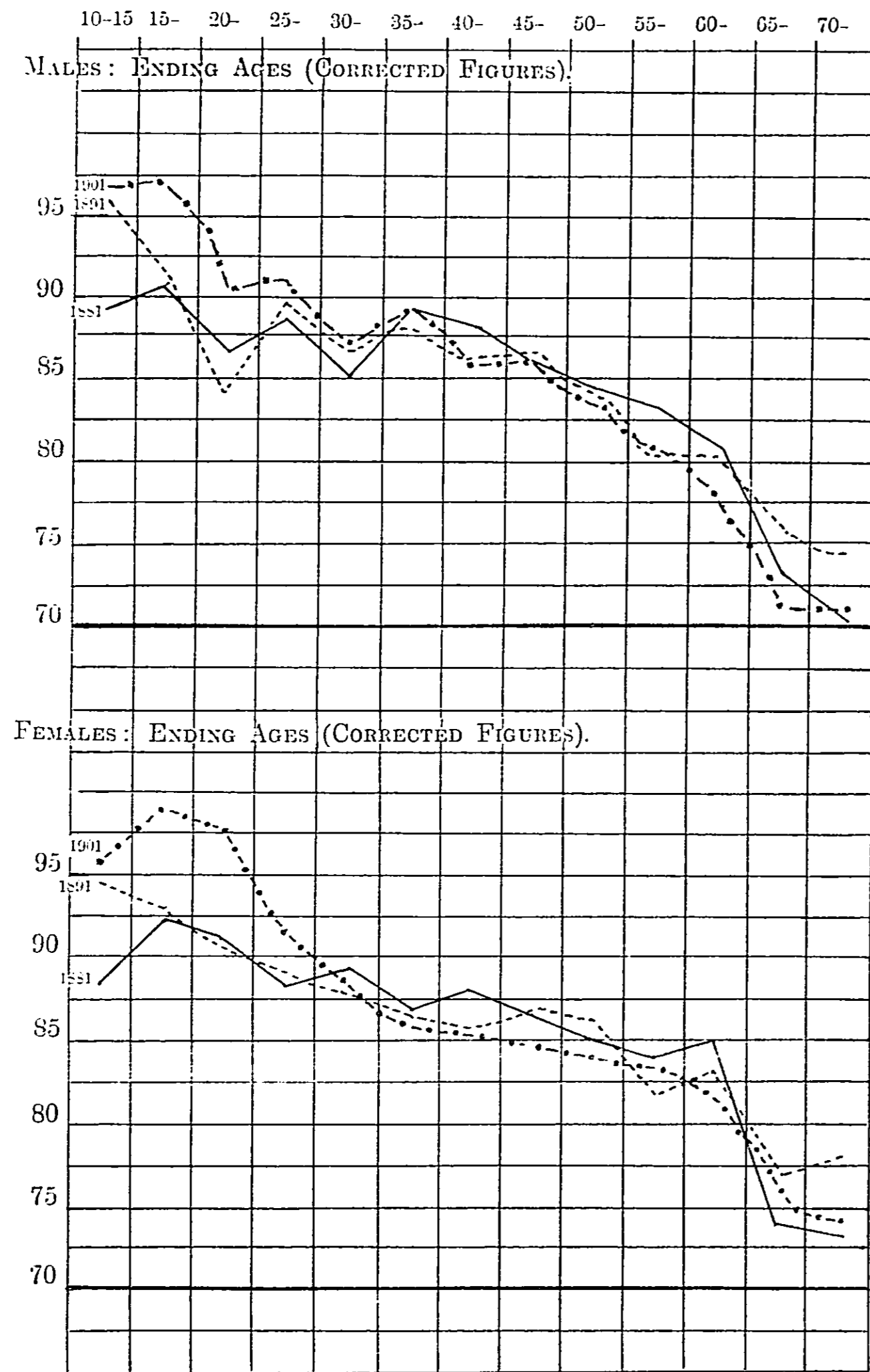


Diagram showing the number counted at the age stated, per cent. upon the number counted at five years younger; but the counted figures are taken as corrected.

ENGLAND'S RECENT PROGRESS.

AN INVESTIGATION OF THE STATISTICS OF MIGRATIONS, MORTALITY, ETC., IN THE TWENTY YEARS FROM 1881 TO 1901, AS INDICATING TENDENCIES TOWARDS THE GROWTH OR DECAY OF PARTICULAR COMMUNITIES AND OF THE RURAL PORTIONS OF ENGLAND AND WALES.

I AM persuaded that a vast majority of educated Englishmen take a real and patriotic interest in the state of the nation.

I am quite conscious that the ideas of Professors of Political Economy are far from being such reliable guides for public opinion upon this subject as they are sometimes thought to be. Adam Smith himself expounded in his "Theory of Moral Sentiments" many things which affect human action in a manner for which his "Wealth of Nations" would not account. But though individual men, their powers and motives, count for so much, yet we cannot rightly appreciate what they are doing and with what kind of facts they have to contend, without reference to statistics showing how our affairs are shaping themselves nationally and locally, and what in existing circumstances are normal or abnormal phenomena.

The information contained in this book is founded on the official Tables published by the Census Commissioners and the Registrar-General. The figures which their publications supply are like stones in the quarry, of little use unless they are dug out, shaped and built up in an intelligent manner. The official mind prepares itself to supply anticipated demands, but does not endeavour (save in one or two ways) to methodize its results, nor to expose the crudities of statistics in their first or undigested state. Let us do what we may to accomplish something in that direction, aiming at what is easily practicable, costing only well-directed labour, and hoping that by placing many questions in new lights assistance will be given to future investigators, and Government Departments will be informed as to what additional tabulations of facts are desirable.

To some extent my task must be that of correcting or upsetting

received notions as well as that of rendering more exact our knowledge of true standards. The value attaching to the work must depend on the importance or otherwise of reaping the full benefit of our national outlay on the decennial Censuses and the annual Reports of the Registrar-General.

The actual processes of internal migration and of emigration beyond our frontiers reflect the progress or want of progress of particular communities. In investigating migrations, light is incidentally thrown on questions of comparative mortality, and on birth and marriage rates, all having a direct influence on the growth of population. When it is seen that in the last two decennial periods for which we have data there was a large measure of stability in the conditions generally prevailing, we shall have some reason to conclude that it is in our power to make forecasts sufficiently close to be of value in relation to such problems as that of the necessary provision for water supply.

I will illustrate what I mean by stability by referring to the following features of our statistics.

We find universally a loss of rural population at ages 15-25, which influences the numbers who at the end of a decennium are aged 15-35.

We find in the principal colliery districts gains of young men and of women somewhat older; boys, in fact, for the pits and brides for the older men. But the high birth rates influence the increase of population there more powerfully than any migrations.

In districts working in cotton and wool there is a tendency to lose male inhabitants and to attract girls; the birth rates here are specially low.

Of industrial districts, some are adjacent to colliery districts and show very similar peculiarities; the others are not reducible to any general rule.

Residential districts generally lose young men; they all attract young women, and both sexes after 35.

Old towns generally lose young men and attract a few very young girls; women a little older tend to leave them. They commonly show moderate gains of both sexes after 50.

Owing to the form in which the official statistics on which I have to base my calculations have been tabulated, I am obliged to deal in nearly every case with a registration district or a group of such districts. As the boundaries of some of these districts have from time to time been altered, it becomes necessary to settle the date at which the boundaries shall be regarded as being fixed, making corrections of the figures in respect of changes effected before or since such date. The period to be treated of extends from 1881 to 1901, and I have found it least inconvenient to adopt the middle year, shaping the whole body of facts on the footing of the boundaries existing at the time of the Census of 1891.

For reasons which will hereinafter more fully appear, I have attributed wide areas to most of the large towns. The chief objection to this course would seem to be, that the rural parishes comprehended within such wide areas usually resemble other rural districts in being unable to retain the whole of their native population, so that through the inclusion of such parishes the rate of increase of population in large towns tends to be somewhat understated. On the other hand, many changes in local boundaries are merged, and thus got rid of without the need of estimates

by massing districts near large towns between which transfers have taken place.

The main purposes I have in view are—

- (1) To study the progress or want of progress of towns and districts of different classes, as shown by the balance of migrations at different ages, and also to some extent by the birth and marriage rates, the proportions of enumerated population found to be in the married state, &c.; and
- (2) To consider the comparative mortality at different periods of life, the effect of migrations thereon, the disturbing influences which often lessen the value of the recorded facts, and the extent to which the death rates have in recent times been lowered.

I have therefore looked at the subject without reference to the rivalries of particular towns, and must be understood to admit that in the absence of scientific boundaries comparisons of one place with another can seldom be altogether just.

The common practice of marshalling population statistics under counties, whether administrative or registration counties, is found on close examination to be misleading. The elements of which county populations are composed are often discordant, so that the items included in the totals representing the phenomena counteract each other, and the average result is not illuminating. And where important centres, such as Liverpool or Birmingham, send their ramifications into two or more counties, the importance of an appropriate grouping of county areas, if average results of any value are to be attained, is specially evident.

The separation of those districts which have marked characteristics of their own from the mass enables us to group as mainly rural a great many registration districts, the separate study of whose statistics would weary and confuse the reader; by this method everything of real importance is brought into view, and the rural areas, it will be seen, form a fairly uniform background to the picture.

The increase of population during the twenty years under review was as shown below:—

	Males.	Females.
Population, 1881	12,639,902	13,334,537
Births, 1881-1890	4,526,729	4,363,509
Less Deaths, 1881-1890	17,166,631	17,698,046
	2,698,316	2,546,455
Result of Migrations . . . (loss)	14,468,315	15,151,591
	415,414	(loss) 201,967
Population, 1891	14,052,901	14,949,624
Births, 1891-1900	4,657,871	4,497,282
Less Deaths, 1891-1900	18,710,772	19,446,906
	2,865,226	2,710,149
Result of Migrations . . . (loss)	15,845,546	16,736,757
	116,933	(gain) 62,473
Population, 1901	15,728,613	16,799,230

It will be noticed that the migrations of the two sexes are strikingly dissimilar; this fact makes it the more necessary to separate the sexes in all the details of our work. It is fortunate that we are in a position to study the migrations and mortality of the sexes separately. In doing so we may in a great measure assure ourselves of the reliability of our results, as we shall do if we feel that the differences which appear as between the movements of the sexes are in general agreeable to probability.

I now proceed to re-state the above facts under ages in a tabular form (see page 5), so as to show at what periods of life gains or losses are experienced as the net result of the many currents of emigration and immigration.

In preparing these figures it was necessary to re-class the deaths, returned under the age at death, so as to attribute a due proportion of the death-loss to each line of the Table, which comprehends persons born in a succession of quinquennial periods. The arithmetical process is shown in Appendix A, which also includes a statement as to transfers of some of those returned at the Censuses under particular quinquennial ages, to the age next in order above or below that returned. These modifications are arbitrary, and subject to revision, but they are judged expedient in view of the tendency towards round numbers which affects many returns, and that other tendency to mis-state age, which is not absolutely confined to the gentler sex. Boys as well as girls add to their ages in order the sooner to attain the full wage of grown-up people. Old men as well as old women add something to their ages, after reaching 60 or 65. Between 25 and 40 women very naturally tend to understate their years.

Whilst I claim that in these processes of correction, which run through the whole of my work, I have intentionally erred on the side of moderation, I also draw attention to the fact that in the re-classification of deaths any imaginable inaccuracy would necessarily be of small importance, as affecting the balance of migrations at particular ages.

This will readily be seen upon examination of the Tables in Appendix C.* And as to the corrections of ages, the best confirmation they can have lies in the resulting regular gradation of losses and gains by migrations at successive ages, which will better appear when we proceed to classify the chief towns, industrial and other places under a few categories.

It will be remarked that the births and deaths introduced into the calculation are those recorded in the two periods of ten years ending 31st December, 1890, and 31st December, 1900, whilst the Censuses were taken in each case near the end of the March following. The difference between the figures thus taken as representing the births and deaths and those for equal periods of time ending about three months later is known in the aggregate and is not great, and the official returns do not favour the ascertainment of the more exact figures for the several localities. What is of greater importance is the question, whether many births escape registration? and from the most general considerations, after giving effect

* It must be borne in mind that at the ages most affected by migrations the numbers dying are comparatively small. Any mistake in computing these numbers by apportionment is therefore of little consequence, since very often the assumed deaths might be increased or diminished by as much as one-third, without seriously altering the computed loss or gain by migrations. The reader will rarely find that the utmost alteration which could reasonably be imagined would sensibly affect the conclusions to be drawn as to the general trend and dimensions of the current of migration.

ENGLAND AND WALES: MOVEMENT OF POPULATION IN TWENTY YEARS, 1881-1901.

Age at end of Decennium.	Male Population, 1881.	Deaths, 1881-90.	Result of Migrations.		Female Population, 1881.	Deaths, 1881-90.	Result of Migrations.		Deaths, 1891-00.	Result of Migrations.		Female Population, 1891.	Deaths, 1891-00.	Result of Migrations.	
			Loss.	Gain.			Loss.	Gain.		Loss.	Gain.			Loss.	Gain.
0-10	4,620,729	1,163,603	40,431	..	4,363,609	998,908	25,465	..	1,200,352	42,743	..	4,497,252	1,029,228	..	28,683
10-15	1,757,057	58,572	39,392	..	1,763,207	60,035	18,592	..	53,632	..	..	1,785,628	54,194	..	3,409
15-20	1,508,570	57,286	108,098	..	1,578,817	60,988	..	26,753	56,122	..	..	1,701,896	55,871	..	53,290
20-25	1,404,730	67,279	91,350	..	1,399,401	70,730	3,358	..	67,889	..	..	1,614,609	67,132	..	39,463
25-30	1,273,769	73,549	56,935	..	1,294,063	70,642	33,541	..	74,664	..	..	1,500,190	74,144	..	10,043
30-35	1,104,354	89,077	39,020	..	1,182,882	79,985	38,580	..	82,882	..	..	1,366,066	79,813	..	16,282
35-40	985,228	89,011	1,602	..	1,017,754	83,020	47,800	..	95,022	..	..	1,219,919	86,397	..	28,864
40-45	896,150	96,935	7,529	..	932,830	87,068	29,725	..	106,358	..	..	1,072,699	93,337	..	21,889
45-50	740,674	103,824	15,698	..	811,425	99,332	23,148	..	116,645	..	..	928,959	99,781	..	..
50-55	650,801	111,500	19,438	..	712,533	97,919	27,980	..	126,398	..	..	801,470	109,947	..	..
55-60	564,378	121,252	9,292	..	616,263	111,025	6,147	..	136,825	..	..	684,632	124,034	..	..
60-65	477,028	135,015	2,798	..	524,087	129,860	..	..	151,099	..	..	599,053	146,539	..	..
65-70	399,488	146,490	..	..	439,956	148,712	..	..	161,781	..	..	490,364	168,237	..	..
70-75	323,146	237,209	..	..	373,357	275,970	..	..	191,751	..	..	406,915	..	..	..
75-80	237,209	303,863	..	..	275,970	451,466	..	..	436,244	..	..	313,273	..	..	..
80-85	106,345	..	..	..	201,140	..	..	..	..	..	..	243,746	..	..	..
85 and upwards.	137,668	..	..	..	181,013	..	..	..	..	..	..	201,915	..	..	..
	17,100,631	2,698,310	415,414	..	17,608,040	2,546,455	201,907	..	2,805,229	116,933	..	19,446,906	3,710,140	..	62,473

* Births in 1881-1900.

* Births in 1881-90.

to the probability that many more English children born in the Colonies and India are brought home now than was the case in 1891, I am led to conjecture that the apparent gain of children in 1891-1900 is, to a small extent only, due to non-registration of births. This, if it is so, might in some measure be caused by the craze of the anti-vaccinators, who naturally dislike being subjected to pressure by the authorities to compel them to vaccinate their children within a moderate time after the registration of birth. The decline in the ratio of births would thus in a small measure be over-stated.

Whether the figures relating to migrations of population under 15 years of age* and over 65 years be trustworthy or not is a small matter compared with the substantial reliability of the figures between 15 and 65, which I think may safely be assumed.

THE DISTRICTS AND GROUPS TABULATED.

After mature consideration, I have decided to show the statistics of 136 districts and groups of districts, and to group the remainder into twenty-four masses, as will be hereinafter shown. The special sub-divisions consist of:—

- 10 Large towns.
- 19 Old towns of less magnitude.
- 22 Towns and districts much engaged in textile manufactures.
- 9 Colliery districts.
- 25 Industrial districts, ports, &c.
- 32 Residential districts.
- 16 Places influenced by military or naval establishments.
- 3 Other places not easy to classify.

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Tables exhibiting the collective losses and gains in these eight categories are given in Appendix B, where I also show similar information for sub-classes, viz.:—

- 7 Industrial districts attracting women, where apparently the bachelors have to go some distance in search of wives.
- 6 Industrial districts which are less attractive, and which, like the first seven, are non-residential.
- 12 Industrial districts of less forbidding character.
- 25
- 4 Old towns containing military and naval establishments.
- 12 Less important places containing camps, barracks, &c.

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* This question is touched upon again. See pages 29-35.

- 7 Residential places containing lunatic asylums.
- 9 Ditto, including Brighton, Blackpool, Bath, &c., where the rates of mortality are somewhat high.
- 3 Ditto, where it is conceived many *male* invalids resort, causing the mortality of the sexes to be singularly unequal.
- 13 Other residential places.

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The proportions of losses and gains in the several groups are also shown in the Appendix, with graphic diagrams for the larger divisions, such as the colliery districts, the seats of textile and other manufactures, &c.

A set of Tables in Appendix B gives the facts for the twenty-four rural residues, collected into five groups, viz., six in the south and south-east, of a more or less residential character, three in the south-west, and three in the east, of more purely rural nature, six comprehending Wales and the Welsh border, and six in the Midlands and North, these last being affected in some measure by manufactures and mining.

The following Table shows the most salient facts as to migrations in the sub-divisions, including those last described:—

MALES.	Gains or Losses in 1881-91.				Gains or Losses in 1891-1900.			
	15-20.	20-35.	35-50.	50 and upwards.	15-20.	20-35.	35-50.	50 and upwards.
10 Large towns . . .	3,908	60,723	4,923	7,590	194	101,942	22,563	3,442
19 Old towns . . .	2,116	18,413	2,540	2,114	1,393	14,577	2,120	5,979
22 Towns (textile) . . .	2,194	12,933	2,032	2,968	1,575	26,717	6,354	2,104
9 Colliery districts . . .	13,617	36,260	5,423	770	11,442	22,037	615	69
7 Industrial (Middlesbro', &c.) . . .	987	2,386	283	880	712	1,943	925	186
6 Industrial (Wolverhampton, &c.) . . .	3,798	14,009	7,425	3,048	3,550	13,011	4,593	3,589
12 Industrial (Southampton, &c.) . . .	601	13,563	2,598	228	193	1,557	4,777	2,707
7 Residential (Uxbridge, &c.) . . .	9	4,534	1,803	2,078	1,155	163	4,817	3,984
9 Residential (Brighton, &c.) . . .	509	8,764	1,735	4,846	318	2,433	6,765	7,616
3 Residential (Bournemouth, &c.) . . .	183	983	1,398	1,489	681	1,696	1,392	2,013
13 Residential (Torquay, &c.) . . .	1,294	12,419	1,167	1,874	145	10,102	4,595	4,501
4 Military towns . . .	5,863	5,616	568	943	7,507	8,975	697	1,621
12 Other Military places . . .	5,278	1,921	5,141	633	12,850	5,960	808	1,808
3 Other places . . .	36	1,104	453	433	407	1,670	648	720
6 Rural (residential) . . .	18,877	77,845	4,638	5,792	18,186	77,436	3,064	2,616
3 " (South-West) . . .	7,486	35,615	2,889	2,550	7,062	30,717	1,893	639
3 " (East) . . .	13,508	55,776	6,389	5,047	12,383	52,832	3,530	3,065
6 " (Welsh) . . .	11,756	51,881	10,595	4,442	7,462	34,509	465	891
6 " (North) . . .	11,444	53,574	10,714	5,886	8,561	48,869	7,774	3,457
	39,332	256,383	48,751	24,517	26,318	175,106	21,819	19,929

The figures in heavy type represent losses by migrations.

FEMALES.	Gains or Losses in 1881-91.				Gains or Losses in 1891-1900.			
	15-20	20-35	35-50	50 and upwards.	15-20	20-35	35-50	50 and upwards.
10 Large towns . . .	53,119	133,946	57,650	5,966	55,937	190,155	41,114	2,723
19 Old towns . . .	2,122	7,518	3,993	2,185	2,962	3,014	737	4,189
22 Towns (textile) . .	13,885	10,174	10,192	3,820	10,296	3,406	12,767	5,311
9 Colliery districts.	7,312	19,478	1,665	367	4,759	24,308	3,852	3,560
7 Industrial (Middlesbro', &c.)	2,680	1,439	654	307	2,508	2,614	1,762	192
6 Industrial (Wolverhampton, &c.)	6,436	11,838	5,731	3,738	5,382	10,809	4,427	4,108
12 Industrial (Southampton, &c.)	1,387	3,809	1,925	433	268	2,914	1,464	939
7 Residential (Uxbridge, &c.)	548	920	1,034	1,987	1,592	5,396	3,971	4,328
9 Residential (Brighton, &c.)	9,073	7,396	814	5,141	9,536	12,280	3,158	6,848
3 Residential (Bournemouth, &c.)	2,462	5,026	1,697	2,038	2,502	3,112	683	1,936
13 Residential (Torquay, &c.)	2,702	471	581	2,182	4,565	3,630	2,995	4,281
4 Military towns . . .	950	5,420	365	2,037	756	9,528	975	1,976
12 Other Military places . . .	1,257	408	1,602	231	862	4,902	868	1,259
3 Other places . . .	478	175	232	338	229	257	527	597
6 Rural (residential)	28,500	44,086	7,351	7,801	26,157	39,734	5,003	6,290
3 " (South-West)	8,382	20,478	4,765	3,798	8,120	18,698	4,428	3,008
3 " (East)	21,112	39,737	7,549	7,837	18,434	34,705	5,077	5,735
6 " (Welsh)	11,371	32,605	10,082	5,483	8,232	23,908	5,165	3,339
6 " (North)	14,538	34,112	12,307	8,982	11,510	28,838	8,572	4,971
	18,592	10,146	116,105	31,659	3,409	102,796	67,035	5,380

The figures in heavy type represent losses by migrations.

The above Table seems to me to be in a high degree interesting. It illustrates very clearly the differences in local movements of population, the dissimilarity (already alluded to) of the movements of the two sexes, and yet the constancy in many respects of the results in the two decennial periods.

The largest gains of the great cities were experienced at identical ages, but in the second decennium the effect of increased alien immigration at the higher ages is noticeable. The considerable emigration of women aged 35 and upwards from such towns in both periods may partly be due to marriages with persons at a distance, but also may partly arise from a tendency of some, out of the large numbers who arrive, to return after a few years to their native places with their savings.

The seats of textile manufactures attracted few young people in the first period and still fewer in the second, and those mostly young women.

The mining districts gained more largely; they added fewer men and a greater number of women in the second decennium.

The other districts which attracted men (but at dissimilar ages) were the residential and military places, and those of the industrial districts (seven in number), which are treated apart because of their apparent

tendency to attract women as wives (resembling in that respect the mining districts), and which, like the mining districts, showed in both periods a loss of girls under 20.

Southampton and some other places in the industrial list have gained ground, after experiencing losses in the first decennium.

The old towns of medium size attracted a few young women, probably as domestics, and they also attracted old people in moderate but increasing numbers. This may have been partly due to the residential attractions which some of them possess; but the existence of county asylums for lunatics in such towns involves in many cases the transference to them of a considerable number of aged men and women from the rural districts.

The military places showed a large accretion of men in 1891-1901, as was natural. There was a corresponding but smaller addition of women, mostly aged 20 to 35.

One of the chief features of the Table is the constancy of the facts relative to rural districts. They lost a smaller number of people over 35 years of age in the second decennium than in the first, especially from the Welsh rural districts. At the age 15 to 20 more girls than boys seem to leave their rural homes; but at higher ages the case is reversed.

Residential places, and those military districts which contain a rural element, fail to retain the whole of their young men. The same places, except the military districts in the first decennium, required the services of many young women from outside their bounds, who must not be confounded with visitors, since at the date of the Census but few pleasure seekers can have arrived. Those men and women, aged 35 and upwards, who go to reside in watering-places and are counted in March, must in general be invalids, especially the men.

In the matter of migrations, the points of resemblance between the sexes are chiefly as under:—

Large towns: Largest gains at age 20-30.

Old towns: Immigration at age 50 and upwards.

Colliery districts: Largest gains at 20-35.

Residential districts: Large gains after 45.

Rural districts: Heavy losses at each age up to 35.

The points of dissimilarity include the following:—

Large towns: Considerable immigration of females at age 15-20 and heavy loss at 35-50.

Old towns: Gain of females at 15-20; loss of males at 20-30.

Textile manufacturing towns: Immigration of females at 15-25 loss of women aged 40 and upwards.

Colliery districts: Gain of boys and loss of girls aged 15-20.

Residential districts: Loss of males and gain of females aged 15-25.

Military districts: Gain of males aged 15-25 and of females aged 25-35.

Industrial districts: Smaller gain or larger loss of males than of females aged 25-35.

Rural districts: Loss of females larger than that of males at age 15-20 and after 35; larger loss of males at 20-35.

The characteristics enumerated seem numerous and constant enough to enable us to say that the classes grouped have each a distinctive physiognomy.

Reference has already been made to the effect of the inclusion of rural parishes with towns in qualifying the results arrived at. If purely rural areas could have been excluded, the salient features of the Table would have been even more striking. Not only the residential places but most of the "12 other military places" must lose many of their young people in the same manner as the "rural residues" do.

It may be noted that the four "military towns" contained 27,751 soldiers and sailors on duty in 1891, 33,400 in 1901: the twelve "other military places" contained 25,770 of such soldiers and sailors in 1891, and 40,500 in 1901. Very many of those counted in 1891 may have departed before the next Census was taken, and would naturally be replaced by men about ten years younger.

MIGRATIONS IN TWENTY YEARS.

The total losses and gains in twenty years are shown for the main classes of districts in Appendix D.

It will be seen that at the period of life when migrations are most frequent, gains of men were experienced in the largest towns, the colliery districts and the military places. The same places gained female inhabitants, as also did the residential districts and the seats of textile manufactures.

The compendious Tables opposite give the measure of these changes, and they also reveal losses in the rural parts approximating to 40 per cent. of the male, and 30 per cent. of the female population, as between ages 5-15 and 25-35.

As at age 15-20 the exodus from unprogressive districts has already commenced, it is not to be wondered at that rural losses in twenty years starting from that age are less than those reckoned for rural populations, the commencing ages of which range between 5 and 15, when only a few have departed.

HYPOTHETICAL RATIOS (MALES).

If we calculate what the gain or loss by migrations between ages 5-10 and 35-40 would have been, supposing the conditions prevailing in 1881-90 had been maintained during another twenty years, we find the rural residues would have lost from 60·3 down to 39·7 per cent. of their inhabitants in 22 out of 24 cases, the exceptions being Lancashire and Cheshire and the Leicester group, where smaller losses occurred. Similarly calculating on the basis of the experience of 1891-1900, we find the losses range from 54·8 down to 28·3 per cent. in 22 cases, the exceptions being Leicester and Carnarvon.

In 1881-90 onwards the losses so computed in 16 out of 136 cases of single districts or groups exceeded 40 per cent., and in 1891-1900 onwards only seven districts lost so much. It is apparent, then, that however difficult it may have been to maintain the populations of the less prosperous districts in 1891-1901, things were worse in 1881-1891.

	Ending Age 25-30.		30-35.		35-40.		Per cent. gained or lost in next twenty years.		
	Population 1881.	Migrations.	Population 1881.	Migrations.	Population 1881.	Migrations.	25-30.	30-35.	35-40.
MALES.									
Large towns	499,736	48,693	435,055	50,061	398,268	44,137	9·74	11·51	11·08
Colliery districts	199,009	20,836	167,669	19,472	153,492	11,905	10·47	11·61	7·76
Military districts	43,861	10,295	39,954	4,861	42,839	2,758	23·47	12·17	6·44
Textile manufacturing districts	147,479	7,949	133,136	8,975	122,897	8,184	5·39	6·74	6·66
Industrial districts	113,007	8,505	98,271	8,731	90,291	9,611	7·58	8·88	10·64
Old towns	69,806	8,417	62,717	7,334	58,121	6,447	12·14	11·69	11·09
Residential districts	81,901	6,965	79,804	10,576	67,219	1,476	8·59	13·25	2·20
Rural districts	411,365	161,132	385,059	153,178	337,878	113,786	39·17	39·78	33·68
Miscellaneous	2,915	626	3,065	714	2,824	429	21·47	23·30	15·19
England and Wales	1,568,579	113,830	1,404,730	115,114	1,273,769	86,649	7·26	8·19	6·80
FEMALES.									
Large towns	506,742	120,688	445,371	107,013	448,792	32,316	23·82	24·23	7·20
Colliery districts	199,236	3,793	165,127	13,075	139,805	13,857	1·90	7·92	9·91
Military districts	44,364	5,828	40,471	5,777	37,579	3,367	13·14	14·27	8·96
Textile manufacturing districts	151,245	11,669	136,503	8,953	135,119	3,786	7·72	6·56	2·80
Industrial districts	113,179	10,386	96,777	6,377	83,432	3,555	9·18	6·59	4·26
Old towns	70,201	760	63,626	1,167	61,474	4,869	1·68	1·83	7·92
Residential districts	81,785	19,928	77,209	15,045	78,546	5,041	24·37	19·48	6·12
Rural districts	409,093	129,641	371,680	106,520	307,270	62,471	31·69	28·66	20·33
Miscellaneous	2,972	248	2,637	97	2,046	400	8·34	3·68	22·48
England and Wales	1,578,817	20,871	1,399,401	36,796	1,294,063	19,640	1·32	2·03	1·52

	Loss as in			Loss as in	
	1881-90.	1891-00.		1881-90.	1891-00.
Penzance	62.0	34.2	Lynn	45.8	*
Rugby	58.0	*	Macclesfield	44.7	33.7
Whitehaven	55.3	55.9	Salisbury	42.7	2.4
Helston	54.5	50.7	Deal	42.2	5.9
Falmouth	51.2	64.3	Rhyl	41.3	*
Cheltenham	50.5	24.0	Stafford	41.0	19.5
Yarmouth	49.8	8.7	Saddleworth	21.6	45.2
Easthampstead	49.4	*	Redruth	34.6	49.7
Herne Bay	47.2	20.1	Cockermouth	*	51.4
Kidderminster	46.1	42.4	Brentwood	*	33.7

* Gain.

Single districts which on the experience of 1881-1891 stood on a like computation to gain 40 per cent. or more were 12 in number; similar cases ten years later numbered 19, as shown below:—

	Gain as in			Gain as in	
	1881-90.	1891-00.		1881-90.	1891-00.
Bournemouth	344.9	10.4	St. Germans	10.3	118.2
Tilbury	183.8	9.6	Weymouth	*	106.5
Burnley	82.4	9.6	Llandudno	34.7	105.8
Kettering	78.1	37.6	Southampton	*	98.9
Farnham	71.9	41.5	Sheerness	*	84.9
Glamorgan	66.3	17.0	Godstone	*	80.5
Colchester	62.0	*	Nuneaton	*	80.1
Swindon	61.5	17.2	Rugby	*	77.6
Eastbourne	58.8	*	Folkestone	12.3	73.9
Morecambe	53.3	59.9	Easthampstead	*	65.7
Poole	52.4	*	Watford	4.9	53.8
Blackpool	44.1	276.5	Doncaster	6.0	53.6
Southend	*	210.2	Chatham	23.5	46.5
Harrogate	*	172.1	Aldershot (North)	*	44.4

* Loss.

The most cursory inspection of this Table shows how irregular, in many cases, are the gains by migration, and how necessary it is to have a quinquennial Census, including at all events the elements of age and civil condition, if we are to have any confidence in ratios derived from our annual statistics of births, deaths, and marriages, as evidence of local progress or retrogression.

MIGRATIONS INTO AND FROM INDIVIDUAL TOWNS AND DISTRICTS.

The preceding observations serve to introduce to the reader's notice the 136 places which I have thought it advisable to distinguish, and the 24 rural groups of districts which constitute the residue of the country. The substance of this volume is contained in Appendix C, in which some account is given of the composition of each district, and the losses and gains, at the several ages, of male and female inhabitants are shown.

It is one of the features of statistics relating to administrative areas

that as these areas are often of a mixed character the statistical results arrived at are also mixed. A border district like Uxbridge, into which metropolitan expansion has made an inroad, is really a combination of an agricultural community with a suburb. A district like Rugby or Crewe constitutes a similar compound of an engineering town with a rural environment. A small residential place like Cromer or Clacton may be practically swallowed up by the inclusion of a wide agricultural area.*

As the tendency of English towns since 1851 has been to spread their inhabitants over wider areas than before, I have decided, as a rule, to give every place an ample boundary. This is the more necessary, as there is a tendency for whole families to migrate from the centre to the circumference of any great city, in consequence of which the statistics of the whole organisation cannot be regarded as complete unless the parishes receiving such migrating families are within the boundary chosen. It is found that districts merely on the fringe of a large town are affected both by the usual loss of population resulting from the inability of our rural districts to retain those born within their bounds, and by the influx of families as just mentioned, coming from the central town. In excluding Uxbridge, Staines and Watford, Guildford, Reigate and Brentwood, from the area of the Metropolis, I think I have erred a little on the side of restriction. †

In some cases, as for instance in Leicester, where the limits of several registration districts were changed in 1881-1901, I have been tempted to take in larger areas than would otherwise be expedient, in order to restrict as far as may be any recourse to estimates of population, &c., although the inclusion of those districts lowers the average rates of mortality. In other cases, as at Nottingham and Worcester, I have been content to adopt somewhat narrow limits. The balance of convenience seemed strongly against the large extensions which might have been made by taking in the registration districts into which those towns had spread.

It is not very easy to explain why, in adjusting a liberal boundary for Birmingham, I have taken in West Bromwich and have excluded Walsall. The former registration district is partly within the municipal limits of Birmingham, but it extends into Wednesbury, which is less truly a Birmingham suburb than some portions of Walsall district would be. However, I had to make a choice, and Walsall seemed to me to have a more definite individuality than West Bromwich. On the southern and eastern side it has been practicable to give Birmingham a really wide area without introducing a very considerable rural element.

Manchester resembles Birmingham in being neighboured by other important places, so as to hinder the extension of its limits so far as might otherwise be proper. It seems to me that many families may reside in the country around Stockport whose allegiance is really due to Manchester, and I trace a certain difference between the statistics of Stockport and those of other seats of the cotton manufacture, which may be caused by this circumstance. I doubt whether a similar remark would apply to Oldham or to Ashton-under-Lyne. Towards the west and south-west the boundary adopted gives ample scope for extensions of the city, and includes some rural and colliery districts.

Liverpool, had I the task of shaping its boundary, might receive the

* It is because of this fact that I have omitted to embrace in my list of separate districts, such districts as Clutton (Somerset) and Barnstaple, which might have been added to the respective lists of coal mining and residential places.

† See the Tables on pages 37-40.

addition of some portion of Prescot registration district, such as the Wooltons and Huyton, but that registration district on the whole more truly belongs to the group of mining and metal-working districts of which Wigan is the chief, and I have classed it accordingly.

Nottingham and the Staffordshire pottery group received extensions of boundary between 1891 and 1901, and by way of supplementary information I have prepared Tables (see Appendix G) for the extended districts in the period 1891-1901, where it will be seen that the general features of the local migrations are considerably altered by taking in the added suburbs, especially as respects the movement at age 0-15. This will not surprise anyone who examines the figures for the inner and outer parts of the Metropolis given in Appendix C.

The figures as to Nottingham in Appendix C and those for the larger area in Appendix G are dependent to an unusual extent upon estimates, as the age-distribution of the population of the added area is not known, and has to be the subject of an estimate at one end or other of the period, whether we elect to include or exclude it.

On a later page it is shown that however wide may be the range of rates of mortality in other places, those in the rural residues vary within comparatively narrow limits. It is thus rendered possible to form a fairly close estimate of mortality *at each age* in those fractions of districts which can be distinguished as rural. I have thought it advisable to make several estimates of this nature (also shown in Appendix G) in relation to Rugby, Crewe, Chester, Lincoln and Exeter. Similar estimates might in many other cases be useful. The data as to births and deaths in sub-districts are valuable elements of the calculation, and the returns of ages of those resident in the towns separated are indispensable. It is also necessary to make allowance for deaths in county asylums, which in Exeter, Lincoln and Chester fall within the rural limits.

My main object in submitting these last estimates has been to arrive at a truer knowledge of the *migrations* affecting the towns after which the districts are named, by eliminating rural losses, and in the three cases mentioned, getting rid of the influence of the county asylums. But incidentally we obtain a better idea of the *mortality* proper to these towns, and of the desirability of the publication of separate Tables as to mortality by different causes *in towns* distinguishing either sex.

In studying the migration statistics of individual places it will always be well to note whether the loss of young men at ages 20-25 and 25-30 appears to be heavy or light, or whether there are gains at these ages; also whether there are losses or gains of young women at ages 15-25, and how far these are persistent in both periods.* These and like methods of comparison will bring out essential differences, as in Grimsby district.

The towns show gain of Males at 20-30 = 1,163, rural parts loss = 1,023
 " " Females at 15-25 = 1,307, " " = 755

Perhaps it will be well to add that in dealing with rural residues of counties I have seen no inconvenience in the inclusion in such residues of small towns, for instance Chichester and Bury St. Edmunds. In any wide agricultural area in England such towns necessarily exist and may be regarded as part of the organization of rural society. Thus I have not thought of severing Shrewsbury or Hereford from the counties of which they are the capitals.

* See Appendix C, note, p. 173-174.

One advantage which I claim for my grouping of districts is that of assisting the reader's imagination by suppressing superfluous data and giving the mind comparatively few facts to grasp. A multitude of rural areas are very much alike, from the point of view of this investigation. In showing the residues of various groups of counties, enough is done to prove such similarity, without overloading the reader with details. Smaller rural areas are likely to be less uniform in their statistics, if only because they are small enough to be influenced by accidental things. Those registration districts which are merely fractions of great towns are generally unfit to be separately considered, as containing heterogeneous elements. The age-distribution within them is sometimes peculiar. Only in London itself do we find room enough to mark out inner and outer areas, consisting of entire registration districts, for purposes of comparison.

GREATEST GAINS AND LOSSES.

It may interest some readers if I show what places attracted immigrants most effectively in each decennium, and where the greatest changes of fortune occurred, in the second decennium as compared with the first. I confine myself to immigrants aged 15-40 at the end of a decennium. The movement of population at ages under 15 is influenced by the attractions of schools, and of residential places for those who leave their homes for the sake of education or health, and in a less measure by industrial requirements. I deal separately, later on, with that portion of the statistics which relates to the age 0-15. The movement at ages exceeding 40 is almost confined to large towns and residential places, where such immigrants are of value as giving employment. But in a general way, accretions of population at the age of 15-40 must give a better notion of the progress of a place than could be derived from a study of the total movement, including the almost automatic effect of births and deaths.

The rural districts generally exhibit a steady loss of population, though a small gain is often shown at age 70-75. This apparent phenomenon may be illusory, as I am not quite satisfied with the method I have adopted for correcting the returns of ages, but it also may be real, in which latter case it would indicate a tendency of some portion of the emigrant natives to return.

The largest gains by migration of male population aged 15-40, calculated as a percentage on population at the commencement of the decennium, were in 1881-90 as follows:—

Males in	Gain or Loss in		Males in	Gain or Loss in	
	1881-90.	1891-00.		1881-90.	1891-00.
Blackpool	5.2	26.2	Colchester	11.0	.1
Morecambe	7.5	8.9	Portsmouth	4.0	2.8
Llandudno	4.4	14.1	Tilbury	14.5	2.4
Bournemouth	33.5	1.5	Swindon	11.9	4.2
Poole	6.4	2.1	Kettering	11.3	5.7
Eastbourne	5.7	1.5	Burnley	11.4	1.6
Folkestone	4.5	12.3	Oldham	4.0	.7
Farnham	19.5	9.2	Glamorgan group	11.4	3.6
Chatham	6.8	10.4	Coventry	4.4	.8

Similarly, the largest gains of female population at age 15-40 in 1881-90 were as under:—

Females in	Gain or Loss in		Females in	Gain or Loss in	
	1881-90.	1891-00.		1881-90.	1891-00.
Bournemouth	43.9	16.7	Guildford	6.0	6.8
Eastbourne	28.5	9.3	Worthing	5.7	5.3
Llandudno	17.0	18.8	Tilbury	15.8	4
Blackpool	15.7	28.9	Kettering	8.2	8.6
Hastings	10.1	3.4	Swindon	7.9	6.2
Poole	9.1	5.6	Burnley	13.9	5.6
Harrogate	8.5	23.7	Folkestone	6.4	10.2
Morecambe	8.3	10.5	Portsmouth	5.3	4.0
Southport	6.0	1.7	London	5.2	5.3

In the second decennium the largest gains were, for males, as under:—

Males in	Gain or Loss in		Males in	Gain or Loss in	
	1881-90.	1891-00.		1881-90.	1891-00.
Weymouth (with Portland)	3.5	29.0	Farnham (with Aldershot)	19.5	9.2
Sheerness	2.9	26.1	Plymouth	2.9	7.0
St. Germans (near Plymouth)	2.3	17.5	Blackpool	5.2	26.2
Folkestone (with Shorncliffe)	4.5	12.3	Southend	5	21.4
Godstone (with Caterham)	1.8	11.4	Harrogate	2.5	17.9
Aldershot (North)	1.2	10.6	Llandudno	4.4	14.1
Chatham	6.8	10.4	Morecambe	7.5	8.9
			Southampton	3.5	12.5
			Doncaster	5	7.9
			Rugby	14.6	7.2
			Nuneaton	4	12.0

For females, the corresponding figures were:—

Females in	Gain or Loss in		Females in	Gain or Loss in	
	1881-90.	1891-00.		1881-90.	1891-00.
Godstone	2.6	10.8	Morecambe	8.3	10.5
Folkestone	6.4	10.2	Eastbourne	28.5	9.3
Farnham	1.4	9.6	Uxbridge	2.1	6.8
Blackpool	15.7	28.9	Guildford	6.0	6.8
Southend	2.4	25.9	Southampton	8	8.8
Harrogate	8.5	23.7	Kettering	8.2	8.6
Llandudno	17.0	18.8	Swindon	7.9	6.2
Bournemouth	43.9	16.7	Doncaster	1.0	6.0
Watford	1.8	10.8	Nuneaton	2.0	9.1

It will be seen that high rates of increase by migration were very often confined to one of the two decennial periods. In both periods the residential places gained many women; in the second decennium the military places attracted many men.

The places which experienced the greatest changes of fortune will

next be enumerated, excluding those which, losing inhabitants in both periods, merely added to or decreased the percentage of loss.

The following places gained ground as respects the immigration of males; they include eight with military establishments, and six residential places:—

	Gain or Loss in				Gain or Loss in		
	1881-90.	1891-00.	Difference.		1881-90.	1891-00.	Difference.
Weymouth	3.5	29.0	32.5	Harrogate	2.5	17.9	20.4
Sheerness	2.9	26.1	29.0	Llandudno	4.4	14.1	9.7
St. Germans	2.3	17.5	19.8	Uxbridge	5.0	4.0	9.0
Godstone	1.8	11.4	13.2	Clacton	6.8	2.1	8.9
Aldershot	1.2	10.6	11.8	Rugby	14.6	7.2	21.8
Salisbury	10.2	8	11.0	Southampton	3.5	12.5	16.0
Windsor	4.9	3.0	7.9	Barrow	2.9	5.3	8.2
Folkestone	4.5	12.3	7.8	King's Lynn	9.2	4	9.6
Southend	5	21.4	21.9	Nuneaton	4	12.0	12.4
Blackpool	5.2	26.2	21.0	Easthampstead	12.4	4.5	16.9

The following places gained ground, as to gains of females aged 15-40, in the second decennium:—

	Gain or Loss in				Gain or Loss in		
	1881-90.	1891-00.	Difference.		1881-90.	1891-00.	Difference.
Southend	2.4	25.9	23.5	Farnham	1.4	9.6	8.2
Harrogate	8.5	23.7	15.2	Aldershot (North)	1.5	5.1	6.6
Blackpool	15.7	28.9	13.2	Dover	3.1	3.4	6.5
Herne Bay	5.2	4.9	10.1	Southampton	8	8.8	9.6
Watford	1.8	10.8	9.0	Rugby	5.9	3.7	9.6
Uxbridge	2.1	6.8	8.9	Doncaster	1.0	6.0	7.0
Cromer	3.6	2.9	6.5	Wellingborough	1.6	4.4	6.0
Weymouth	4.1	5.7	9.8	Gloucester	3.2	2.5	5.7
Godstone	2.6	10.8	8.2	Nuneaton	2.0	9.1	11.1

The following were the places which were most seriously checked, so far as concerns the attraction of persons who at the date of the Census were aged 15-40:—

	Gain or Loss of Males in				Gain or Loss of Females in		
	1881-90.	1891-00.	Difference.		1881-90.	1891-00.	Difference.
Bournemouth	33.5	1.5	32.0	Kettering	11.3	5.7	5.6
Tilbury	14.5	2.4	16.9	Bournemouth	43.9	16.7	27.2
Cockermouth	3.1	11.6	14.7	Eastbourne	28.5	9.3	19.2
Colchester	11.0	1	11.1	Tilbury	15.8	4	16.2
Brentwood	1.0	9.5	10.5	Cockermouth	1.8	9.9	11.7
Farnham	19.5	9.2	10.3	Burnley	13.9	5.6	8.3
Burnley	11.4	1.6	9.8	Glossop	2.9	4.0	6.9
Poole	6.4	2.1	8.5	Hastings	10.1	3.4	6.7
Glamorgan colliery district	11.4	3.6	7.8	Oldham	5.0	3	4.7
Swindon	11.9	4.2	7.7	Southport	6.0	1.7	4.3
Eastbourne	5.7	1.5	7.2	Poole	9.4	5.6	3.8

In Appendix D I have tabulated the 136 districts, showing their gains and losses of males and females at ages 0-15, 15-40, and 40 upwards in each decennium. The classes have been sub-divided in some cases, thus—

	Migration of Males, 1891-00.			Migration of Females, 1891-00.		
	0-15.	15-40.	40 and upwards.	0-15.	15-40.	40 and upwards.
	Textile towns: the more prosperous	4,414	11,296	1,154	4,812	16,827	6,177
the rest	4,639	20,527	3,773	4,073	7,179	7,847
Industrial towns: the more prosperous	9,618	12,626	5,994	9,115	11,164	3,819
the rest	5,687	27,741	5,736	6,619	24,525	8,075
Old towns: the more prosperous	2,712	3,592	5,388	2,648	4,038	3,476
the rest	835	11,793	2,126	429	4,635	521
Residential: the more prosperous	12,945	20,130	16,205	12,387	33,545	17,314
those attracting children and old men	12,235	16,650	10,636	10,541	13,666	7,595
the others	747	9,960	2,191	286	1,792	485

SUMMARIES OF LOCAL MIGRATIONS.

Having now passed in review the cases where migrations materially increased or diminished natural increase, we may usefully consider which are the places in each category in which the characteristics mentioned on pages 8 and 9 are not met with.

In 55 out of 160 cases there is a material deviation in the first or second decennium (or both) from the conditions laid down on the pages mentioned.

In entering upon this investigation our object will be to facilitate the consideration of the question whether the exceptions are such as to weaken the authority of the apparent rule in each class of cases.

Large Towns.—Eight out of ten complied with those conditions, the aggregate movement in them being as follows:—

Ages at end.	Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.
0-15	912	19,981	11,851	22,428
15-20	4,986	1,219	49,647	51,730
20-30	58,381	77,276	136,971	174,109
30-35	7,915	28,712	1,842	14,057
35-50	3,358	21,511	54,304	39,328
50 and upwards	7,535	2,855	5,940	2,484
Totals	59,477	151,554	136,383	220,512

The exceptions are Bristol and Nottingham, and I give the figures for each, adding those for Nottingham as enlarged in the second decennium.

Age at end of Decennium.	Bristol.				Nottingham.				Nottingham as enlarged.	
	Males.		Females.		Males.		Females.		1891-00.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	Males.	Females.
0-15	390	1,774	426	1,713	2,507	1,369	1,707	2,314	95	127
15-20	926	943	1,726	2,451	152	470	1,746	1,756	234	1,294
20-30	4,071	4,283	73	1,362	389	26	1,389	2,081	439	1,895
30-35	523	127	1,416	667	590	136	1,229	787	273	630
35-50	386	520	2,373	919	1,179	532	973	867	742	767
50 and upwards	1	578	137	434	54	9	111	673	901	39
	5,517	2,227	1,701	4,374	4,871	1,188	663	804	1,148	1,880

It cannot be said of either place that the largest gains were at age 20-30. The figures for Bristol and enlarged Nottingham have much in common; but it is noticeable that in the latter place the effect of the enlargement is almost to blot out the apparent loss of children under 15, which (as in London) seems to be due to removals to the suburbs.

Old Towns.—Here there are many exceptions, twelve indeed out of nineteen. The seven which conformed to the average rule gave aggregate results as under:—

	Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.
0-15	1,876	1,277	817	1,536
15-20	2,084	1,477	1,733	1,933
20-30	9,276	8,912	2,341	1,412
30-35	1,957	270	1,814	1,049
35-50	409	2,083	1,446	76
50 and upwards	1,731	3,616	1,794	2,417
	13,871	3,678	2,891	3,551

I proceed to give the figures in each of the exceptional cases:—

MALES.	Wakefield.		Chester.		Lincoln.		Maidstone.		York.		Reading.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	648	514	663	70	691	275	486	33	765	162	516	542
15-20	135	62	175	154	157	30	247	115	154	742	232	262
20-30	72	15	1,288	1,202	1,288	775	910	1,095	608	397	253	205
30-35	82	136	478	473	458	81	165	24	748	113	81	230
35-50	313	106	338	234	460	383	183	90	707	110	111	109
50 and upwards	125	8	50	81	105	419	290	512	65	292	2	325
	1,231	357	2,992	2,052	2,949	413	1,335	617	2,609	1,370	1,038	1,673

FEMALES.	Wakefield.		Chester.		Lincoln.		Maldstone.		York.		Reading.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	655	476	413	175	472	233	286	28	404	7	615	311
15-20	653	597	265	149	413	153	267	250	142	304	210	238
20-30	129	201	739	350	851	288	448	601	214	482	415	572
30-35	10	205	304	172	67	197	12	14	170	71	128	275
35-50	468	149	483	214	269	332	1	7	558	355	107	268
50 and upwards)	121	35	239	59	196	243	157	167	76	217	141	489
	2,016	1,253	2,443	1,001	1,876	564	831	677	1,128	726	1,616	2,183

MALES.	Northampton.		Derby.		Worcester.		Coventry.		Cambridge.		King's Lynn.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	636	48	308	31	237	21	108	221	4	14	281	89
15-20	197	139	44	273	87	113	212	34	74	89	56	11
20-30	434	534	680	265	780	671	674	441	707	953	522	93
30-35	233	175	171	138	291	69	3	254	814	265	137	43
35-50	265	201	548	218	103	169	115	88	132	97	204	123
50 and upwards)	297	258	438	125	129	182	156	78	61	137	109	118
	2,062	889	829	800	1,369	343	1,262	276	1,522	1,281	1,309	291
FEMALES.												
0-15	975	223	69	72	66	159	179	143	215	99	143	29
15-20	661	296	14	216	254	253	272	338	410	402	24	81
20-30	191	354	511	504	183	278	298	684	524	485	383	193
30-35	184	49	124	27	333	210	206	19	255	247	182	55
35-50	154	179	309	209	208	1	92	125	209	188	213	12
50 and upwards)	436	348	34	142	2	190	38	63	76	18	105	3
	2,601	285	11	698	538	115	413	958	439	401	1,002	129

Of all these places, Coventry alone shows its largest gains of both sexes at age 20-30. Several of them fail to attract immigrants at the age 50 and upwards. Several, however, attract females at age 15-20, and six show losses of males in both periods at the age 20-30. The calculations in Appendix G indicate that in Lincoln this is wholly due to the inclusion of rural parishes, and that in Chester and Exeter the losses within the respective cities are much less than those shown above. If we make due allowance for variations in the prosperity of the several towns, it will be perceived that there is a good deal of constancy in the movements of population in most of them. Wakefield in both periods lost a remarkable number of girls at the age 15-20, and seems to be affected by tendencies similar to those which prevail in the adjacent colliery district.

Towns with textile manufactures.—Burnley and Blackburn are the only

places which do not show the phenomena defined as prevailing in these towns. The other twenty places gave the following totals :—

	Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.
0-15	1,544	1,434	1,966	696
15-25	5,616	12,371	20,032	15,840
25-30	6,149	9,670	1,680	2,911
30-40	8,698	8,295	8,854	9,286
40 and upwards	3,841	5,116	13,057	13,859
	25,848	36,886	1,593	10,912

The general character of the movements of population in the other two cases in somewhat similar :—

	Blackburn. Males.		Blackburn. Females.		Burnley. Males.		Burnley. Females.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	886	149	1,261	326	3,125	1,060	3,732	1,109
15-25	209	1,565	2,487	1,705	3,199	360	4,598	2,652
25-30	20	820	271	235	1,516	347	1,677	930
30-40	313	373	44	297	1,802	564	2,180	1,250
40 and upwards	22	380	56	988	2,150	569	2,401	823
	784	2,989	4,011	511	11,792	2,900	14,588	6,764

Burnley, it is true, gains male inhabitants at every age, but gained fewer males than females, especially in the second decennium. The chief difference is that in neither place can we parallel the heavy loss of women compared with men, which is shown by the majority of these towns at age 40 and upwards.

Industrial places.—These vary so much in character that it is not to be wondered at if eight out of twenty-five show exceptional characteristics. In the other seventeen the aggregate losses and gains were as under :—

Age at end of Decennium.	Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.
0-15	6,518	2,316	7,348	223
15-20	2,385	2,160	9,693	7,867
20-25	6,168	5,915	7,238	6,798
25-35	16,848	10,227	5,863	85
35-45	6,533	948	4,221	1,158
45 and upwards.	6,177	1,873	5,856	4,274
	44,629	18,807	40,219	19,959

The exceptions were :—

MALES.	Kettering.		Luton.		Walsall.		Stafford.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15. . . .	557	379	276	245	230	296	514	352
15-20. . . .	339	264	239	62	6	41	246	182
20-25. . . .	457	320	408	347	109	161	357	311
25-35. . . .	503	325	263	16	273	243	480	269
35-45. . . .	237	197	76	214	23	95	163	55
45 and up-wards	253	269	44	211	246	52	133	337
	2,346	1,754	1,066	245	151	2	1,627	722
FEMALES.								
0-15. . . .	473	507	242	466	95	248	614	207
15-20. . . .	248	370	237	343	186	104	236	124
20-25. . . .	216	404	139	272	76	132	194	121
25-35. . . .	427	553	438	320	435	209	421	309
35-45. . . .	199	311	132	40	129	116	152	55
45 and up-wards	224	316	55	12	260	131	64	45
	1,787	2,461	491	733	991	522	1,681	771

MALES.	Barrow.		Southampton.		Rugby.		Cockermouth.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15. . . .	931	604	165	1,996	112	854	600	1,199
15-20. . . .	247	137	635	134	221	380	216	841
20-25. . . .	653	1,163	599	938	722	126	335	1,002
25-35. . . .	335	745	229	3,842	894	472	333	1,813
35-45. . . .	1,350	515	17	2,474	210	367	132	1,066
45 and up-wards	1,193	603	439	2,220	255	181	261	1,254
	3,403	49	1,172	11,604	2,414	2,128	1,927	7,175
FEMALES.								
0-15. . . .	822	505	20	2,434	226	456	527	1,126
15-20. . . .	456	585	148	640	254	89	15	950
20-25. . . .	118	439	29	908	287	9	14	961
25-35. . . .	86	85	120	2,616	167	379	296	1,227
35-45. . . .	566	401	161	1,169	107	287	279	673
45 and up-wards	422	555	75	1,323	113	101	131	833
	2,298	2,570	513	9,090	1,154	1,143	1,232	5,770

Changes of fortune of the most striking character in Southampton, Rugby and Cockermouth leave the loss of women less than that of men everywhere save in Barrow and Walsall, and in a slight degree Stafford,

The gain of young people in Southampton in the second decennium is remarkable; as respects men, it may be observed that the Southampton group contained in 1891—

359 men in barracks, &c.
431 persons on board merchant vessels;

but in 1901—

1,994 men in barracks, &c.
1,261 persons on board merchant vessels,

which facts partly account for the gains shown.

There is as much constancy as could be expected in the modes of growth of particular places; for instance, in Kettering an increased demand for female labour caused an increased influx at all ages and a correspondingly decreased immigration of males at every age save the highest.

Colliery districts.—Six of these, including all the most important ones, showed gains and losses such as are referred to on pages 8 and 9, the total figures being as under :—

Age at end of Decennium.	Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.
0-15. . . .	10,312	12,630	10,308	10,994
15-20. . . .	13,722	11,102	5,196	2,631
20-25. . . .	38,328	23,315	20,762	25,132
25-35. . . .	5,926	242	2,043	3,615
35-50. . . .	989	514	796	3,304
50 and upwards				
	69,277	46,291	28,718	40,414

The exceptions, viz., Cannock, Wrexham and Ashby-de-la-Zouch, showed the following losses and gains :—

	Cannock. Males.		Wrexham. Males.		Ashby-de-la-Zouch. Males.		Cannock. Females.		Wrexham. Females.		Ashby-de-la-Zouch. Females.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	274	247	85	185	155	229	267	66	128	136	102	107
15-20	182	10	184	193	107	83	866	801	669	624	581	400
20-25	727	352	453	275	888	15	389	223	230	131	665	79
25-35	174	40	132	111	197	152	167	82	66	345	145	138
35-50												
45 and up-wards	104	150	83	75	198	48	143	104	52	31	234	63
	1,461	305	233	303	1,545	527	1,832	980	889	315	1,727	1,711

The usual heavy loss of girls aged 15-20 is seen in every case, and in all but one instance, there is a loss of males aged 20-35 in excess of the loss of females at that age, which may be recognised as indicating a declining industry, in cases like these, where male labour is required.

Military districts.—Of these sixteen places, including the four towns, six may be deemed exceptional in one or other of the decennial periods. The gains and losses of the remaining ten were in the aggregate as follows:—

	Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.
	0-15	1,610	5,008	338	4,488
15-25	21,739	31,860	1,513	4,754
25-30	613	951	2,351	6,014
30-35	6,512	6,510	696	3,488
35-50	4,467	1,875	619	2,191
50 and upwards	411	2,814	2,141	3,120
	8,948	37,096	6,420	24,055

The six places showed losses and gains as under:—

MALES.	Colchester.		Sheerness.*		St. Germans.		Salisbury.		Windsor.		Folkestone.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
	0-15	127	82	452	160	212	273	372	214	98	243	39	466
15-25	1,834	1,817	372	2,333	137	1,632	919	76	70	800	1,067	2,504
25-30	294	574	63	552	70	36	529	241	59	93	30	311
30-35	406	786	387	44	33	98	211	154	453	224	282	376
35-50	287	505	536	420	196	134	119	363	360	123	136	181
50 and upwards	73	110	306	192	1	52	103	255	4	105	24	389
	1,635	144	1,246	2,069	169	1,853	2,047	821	918	894	664	3,475
FEMALES.												
0-15	210	116	305	173	50	119	207	187	15	94	110	442
15-25	607	334	507	285	283	220	500	188	313	401	1,019	1,809
25-30	44	167	71	62	94	31	281	320	125	197	228	380
30-35	114	101	17	77	47	12	248	130	69	9	44	23
35-50	137	179	221	115	55	33	72	65	78	93	55	187
50 and upwards	118	10	172	168	89	43	111	100	58	89	101	305
	640	219	1,259	602	518	220	1,197	416	472	519	1,359	3,050

* here is a small watering-place within this district, which makes the loss of women the more remarkable.

The gain of women at Windsor and Folkestone may perhaps be ascribed to the residential character of those places. Salisbury, St. Germans and Sheerness lost part of their young women, contrary to the common experience of military places. But the Salisbury district is only included in the class because the formation of a military camp at Bulford introduced 605 soldiers and took the district out of the category of merely rural districts. St. Germans is a dependency of Plymouth. In

1881, 1891 and 1901 the military and naval forces on duty were returned as follows:—

	Special inmates of Barracks, Ships, &c.		
	1881.	1891.	1901.
Colchester	1,865	2,940	3,222
Sheerness	1,222	1,494	3,576
St. Germans	117	579	2,495
Salisbury . . . . .	..	..	605
Windsor	952	796	1,484
Folkestone	1,302	2,150	3,679

There was a material loss of males at the age 30-35 in these as well as in the majority of military districts, due, no doubt, to the departure of soldiers as well as to the emigration of non-military men in search of employment.

Residential places.—Nineteen out of 32 exhibit the characteristics which I have remarked upon. The aggregate movement of migratory population in these nineteen is shown thus:—

	Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.
0-15	11,692	16,045	12,508	14,359
15-20	366	669	10,880	12,693
20-25	8,815	8,747	10,080	12,342
25-35	2,745	447	3,841	5,146
35-45	4,022	7,611	3,366	5,129
45 and upwards	10,276	14,937	12,306	14,757
	14,796	30,962	52,981	64,426

The most important deviations from the general rule are those where female immigrants at the ages 15-25 are not much more numerous than the males gained at those ages. But the whole of the exceptional cases are now shown:—

MALES.	Clacton.		Cromer.		Herne Bay.		Uxbridge.		Staines.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	123	324	17	150	319	684	72	1,079	1,292	1,356
15-25	305	259	68	11	229	165	253	137	358	169
20-25	413	211	257	69	566	460	424	102	1,049	1,005
25-35	364	202	126	15	295	89	84	565	293	379
35-45	90	300	26	99	11	232	108	507	139	420
45 and upwards	205	314	139	183	56	384	206	841	32	381
	1,254	1,188	303	367	838	586	375	2,753	242	1,362

FEMALES.	Clacton.		Cromer.		Herne Bay.		Uxbridge.		Staines.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15 . . .	226	541	27	95	37	611	166	793	376	1,033
15-20 . . .	447	261	87	32	126	170	418	167	322	182
20-25 . . .	398	285	159	42	253	9	237	83	235	185
25-35 . . .	286	418	64	253	138	154	278	852	88	413
35-45 . . .	152	355	23	171	25	327	155	550	18	274
45 and upwards . . .	52	315	45	155	12	430	180	803	73	196
	129	1,083	315	600	467	1,731	124	2,914	148	1,549

MALES.	Southend.		Morecambe.		Isle of Wight.		Cheltenham.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15 . . .	338	1,882	445	1,086	220	142	10	292
15-20 . . .	27	656	441	631	438	532	311	86
20-25 . . .	142	671	328	570	716	1,006	1,193	866
25-35 . . .	66	1,291	570	795	548	589	1,392	688
35-45 . . .	124	1,137	374	561	342	306	254	173
45 and upwards . . .	30	1,745	983	1,076	228	328	69	382
	293	7,382	3,141	4,719	2,492	1,635	3,091	621

FEMALES.	Leamington.		Bath.		Brighton.		Guildford.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15 . . .	607	2,051	515	1,024	200	1	43	418
15-20 . . .	23	769	481	544	53	122	923	1,150
20-25 . . .	95	736	467	676	303	143	284	667
25-35 . . .	247	1,679	576	1,087	347	541	1,855	1,137
35-45 . . .	229	1,359	405	925	290	329	713	430
45 and upwards . . .	351	1,966	1,057	1,672	310	223	320	67
	1,316	8,560	3,501	5,928	791	824	1,638	601

MALES.	Leamington.		Bath.		Brighton.		Guildford.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15 . . .	323	165	409	158	494	617	942	1,067
15-20 . . .	140	213	119	290	587	499	399	652
20-25 . . .	725	813	939	1,281	1,390	1,161	582	275
25-35 . . .	828	641	785	1,013	1,030	274	144	287
35-45 . . .	97	77	74	74	473	520	321	686
45 and upwards . . .	81	429	478	223	696	1,217	221	688
	2,032	1,326	882	2,277	2,290	420	1,157	3,105

FEMALES.	Leamington.		Bath.		Brighton.		Guildford.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15 . . .	91	88	144	201	685	1,098	474	477
15-20 . . .	435	235	1,067	928	2,275	2,100	94	126
20-25 . . .	319	85	769	701	2,373	2,388	267	389
25-35 . . .	952	906	1,166	1,357	1,207	367	741	1,009
35-45 . . .	469	334	525	641	946	644	317	416
45 and upwards . . .	40	512	217	6	66	306	254	244
	798	496	506	159	3,246	4,881	2,147	2,661

Of these exceptional places, four showed losses of young women, viz., Clacton, Cromer, Uxbridge and Staines. In each case the loss of rural inhabitants may have exceeded the gain in the urban portions of the district. Herne Bay showed similar losses in the first decennium, probably for a like reason. Two, viz., Southend and Morecambe, showed an unusual attraction for young men. Five, namely Cheltenham, Bath, Leamington, Brighton and the Isle of Wight, lost female inhabitants at age 25-35 and showed unusually little power to attract older women. Guildford is less exceptional, but seems not to attract the old.

Rural residues.—Fifteen out of 24 are apparently free from any exceptional peculiarity. Their aggregate losses and gains were as under:—

Age at end of Decennium.	Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.
0-15	41,872	22,190	44,474	31,324
15-20	48,005	42,139	70,174	62,161
20-30	175,950	171,784	114,058	106,992
30-35	28,732	19,447	16,580	8,167
35 and upwards . . .	40,624	22,959	55,464	38,620
	335,183	278,519	300,750	247,264

Five of the exceptional groups lost more young men than young women at the age 15-20, viz. :—

MALES.	Cornwall.		Devon.		Cumberland.		Durham.		Carmarthen.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15 . . .	1,594	686	1,787	1,712	1,926	1,480	2,676	958	2,994	1,152
15-20 . . .	1,425	1,125	2,411	2,682	1,047	974	1,266	649	2,719	1,850
20-30 . . .	7,388	5,359	9,909	9,779	3,840	4,431	4,580	2,918	10,140	8,491
30-35 . . .	1,605	855	1,845	1,313	1,026	1,216	1,348	740	2,124	1,088
35 and upwards . . .	1,033	168	2,402	850	1,023	2,202	2,382	1,064	2,051	433
	13,045	7,857	18,354	16,336	8,862	10,303	12,252	6,329	20,028	12,148

FEMALES.	Cornwall.		Devon.		Cumberland.		Durham.		Carmarthen.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	1,391	753	1,778	2,017	1,406	1,462	2,577	1,239	2,449	1,240
15-20	1,309	878	2,093	2,066	704	731	891	363	1,221	854
20-30	3,925	2,505	5,042	5,182	2,609	2,791	2,291	1,348	5,620	4,785
30-35	1,019	669	1,105	1,305	819	804	1,390	956	2,029	1,545
35 and upwards	2,303	1,333	2,674	3,129	2,475	2,026	3,213	2,175	3,833	2,377
	9,947	6,138	12,692	13,699	8,013	7,814	10,362	6,081	15,152	10,801

MALES.	Sussex.		Denbigh.		Montgomery.		Carnarvon.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	486	1,329	1,179	355	2,587	706	1,155	156
15-20	2,256	2,085	703	260	2,076	1,222	1,163	668
20-30	7,389	7,535	2,505	1,831	6,534	3,782	4,502	2,790
30-35	1,245	318	722	414	2,059	338	1,248	66
35 and upwards	2,079	633	1,616	509	3,807	243	1,925	495
	13,455	7,976	6,725	3,369	17,063	5,805	9,993	3,053

FEMALES.	Sussex.		Denbigh.		Montgomery.		Carnarvon.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
0-15	1,218	588	802	274	2,366	906	1,147	194
15-20	3,505	2,773	1,173	742	2,015	1,253	818	632
20-30	4,162	3,236	2,256	1,710	4,564	3,243	2,279	1,467
30-35	236	898	263	102	912	271	331	93
35 and upwards	809	411	1,076	440	2,892	1,317	1,216	582
	9,458	4,112	5,570	3,064	12,749	6,990	5,791	2,782

As already stated, the first five of these county groups, and also Carnarvon, lost more young men at the age 15-20 than young women at the same age. In Montgomery group the numbers lost were nearly equal. This may have happened because of the remoteness from these groups of places where the services of young women are in demand. At 20-30 the losses of males were invariably largest, but not always at 30-35. As to the losses of males at 35 and upwards, they were less than those of females in Cornwall, Devon, Cumberland (in the second decennium only), Durham and Carmarthen; in Denbigh they were greater, and the same might be said of the other three in the first decennium. But in the second period, Sussex, Montgomery and Carnarvon all gained some men at that time of life, whilst Sussex also gained a lesser number of women, and Montgomery and Carnarvon lost women.

Losses upon the whole were less heavy in the second period than in the first, the exceptions being met with in Cumberland (males) and Devon (females), and with respect to the apparent gains in some groups I have included a note in Appendix G, which will show that if certain places be excluded as non-rural, these would in most if not all cases disappear.

MOVEMENT OF POPULATION AT AGE 0-15.

The effect of a diminished birth rate was felt in 1891, and again in 1901, the numbers counted at the age 0-5 being found to have increased in a much smaller measure on each occasion than the population generally.

	Population.			Increase per cent.	
	1881.	1891.	1901.	1881-91.	1891-01.
Males, aged 0-5	1,757,657	1,767,562	1,855,361	·6	5·0
" " 5-20	4,247,078	4,777,405	5,026,485	12·5	5·2
" " 20 and upwards	6,635,167	7,507,934	8,846,767	13·2	17·8
Totals	12,639,902	14,052,901	15,728,613	11·2	11·9
Females, aged 0-5	1,763,207	1,785,928	1,861,347	1·3	4·2
" " 5-20	4,272,281	4,816,605	5,072,339	12·7	5·3
" " 20 and upwards	7,299,049	8,347,091	9,865,544	14·4	18·2
Totals	13,334,537	14,949,624	16,799,230	12·1	12·1

The numbers of births also were augmented in a smaller measure than those of the population.

	1881-90.	1891-1900.	Increase per cent.
Male births	4,526,729	4,657,871	2·9
Female births	4,363,509	4,497,282	3·1

Both in 1891 and in 1901, wherever the increase of population was found to have been at a low rate, an actual decrease of children under 5 years of age and of births was shown; where the general increase was more considerable, there was always a much lower rate of increase of young children and of births, than of grown-up persons.

The altered conditions since 1881 involved a reduction of nearly 2,065,000 children at the age of 0-15, compared with the number which might have been counted had all the conditions remained the same; thus—

In 1881, to 16,502,048 persons aged 15 and upwards there were 9,472,391 aged 0-15, or 57·4 per cent.

In 1891 there were 18,825,890 persons aged 15 and upwards, and in proportion should have been 10,806,060 children under 15; but only 10,176,635 were counted, or nearly 630,000 fewer.

In 1901 there were 21,977,354 persons aged 15 and upwards, and in proportion should have been 12,615,000 children under 15; but only 10,550,489 were counted, or nearly 2,065,000 fewer.

I have already noticed the change in the apparent result of the migrations affecting population at the age 0-15, as between the first and second decennium under review; shortly stated it was as follows:—

	1881-90.	1891-00.	Difference.
Males	Loss 46,431	Gain 42,743	89,174
Females	" 25,465	" 28,683	54,148

Some children undoubtedly immigrated in each decennium; those of English parents living in India and some of the colonies or in foreign countries are often brought home, and many children of foreign parents are to be found in our schools.

On the other hand, emigrants often take children with them, and English children often go abroad for education, or for the benefit of a southern climate.

All these movements must be increased in volume by the greater cheapness and frequency of communication, to say nothing of the increased rapidity of transit.

The apparent loss of children in 1881-90 must, I think, be attributed to emigration of families, modified by the various currents of migration to which allusion has been made. In the next decennium there is reason to conclude that there was a much reduced loss by emigration of families; of the adult males lost on balance a large proportion must have gone to South Africa as soldiers. There is also reason to think that the influx of children (whether born of British parents, or foreigners attending our schools) must have increased.

If the whole difference had been due to non-registration of births, it would only have amounted to about 2 per cent. on male and 1½ per cent. on female births. Any omissions to register births in order to avoid the pressure of the law concerning vaccination would affect both sexes alike. I conclude that any such omissions must have amounted in 1891-1900 to less than 1 per cent. upon births.

A defect in the registration of births is more likely to occur in populous places than in rural districts, where facts can less easily be concealed. And in considering whether there is such a defect, we shall do well to separate the apparent gains and losses in different classes of districts, thus—

Age 0-15.	1881-90.		1891-1900.	
	Males.	Females.	Males.	Females.
Residential districts	gain 15,556	gain 15,463	gain 24,433	gain 22,642
Large towns	loss 3,029	" 10,570	" 20,386	" 21,827
Colliery districts	gain 9,968	" 10,067	" 13,415	" 11,987
Military districts	loss 2,232	" 181	" 6,126	" 5,041
Industrial districts	" 7,129	loss 8,137	" 3,931	" 2,496
Old towns	" 4,699	" 1,341	" 1,877	" 2,219
Miscellaneous	gain 923	gain 381	" 866	" 553
Towns with textile manufactures	" 2,467	" 6,959	loss 225	" 739
Rural places	loss 58,256	loss 59,608	" 28,066	loss 38,821
England and Wales	loss 46,431	loss 25,465	gain 42,743	gain 28,683

A study of this Table will suggest that migrations of entire families to the more progressive colliery districts, and migrations of girls in search of work to large towns, and to seats of textile manufactures, have to be reckoned with. Then it seems rather singular that whilst in the first period the rural districts showed nearly equal losses of males and females, in the second there was a greater loss of girls than of boys.

The closeness of the gains for either sex in 1891 in several classes of districts tends to show that the causes of variation affect both sexes alike, and does not conflict with the idea that some general cause, such as a

tendency towards non-registration, may have been at work. The approximate equivalence of gains of the two sexes by the largest towns in the second decennium, notwithstanding that the tendency of rural girls to leave their homes was greater than that of boys, can apparently be accounted for by a diminished demand for female domestic servants. The importation of aliens into London will not account for the changed proportions of young immigrants, as the numbers of foreign boys and girls counted in 1901 were closely similar.

Consulting Appendix D we find the following changes in the migrations of the sexes in large towns at age 0-15:—

	Increased gains or decreased losses in 1891-1901.			Increased gains or decreased losses in 1891-1901.	
	Males.	Females.		Males.	Females.
London	6,257	2,529	Sheffield	1,048	737
Birmingham	6,457	5,913	Leeds	541	909
Liverpool	4,854	5,474	Hull	230	385
Manchester	2,610	1,462	Nottingham	1,138	607
Bristol	1,384	1,237	Leicester	72	44

	Net migrations (Males), age 0-15.		Net migrations (Females), age 0-15.		Greater gains or smaller losses of	
	1881-90.	1891-00.	1881-90.	1891-00.	Males.	Females.
Centre: London City	233	447	332	266	214	66
Holborn	4,879	5,147	4,499	4,947	268	448
Westminster	4,144	4,310	4,087	4,299	166	212
	8,790	9,010	8,918	9,512	220	594
Next: Shoreditch, Stepney, &c.	19,046	19,763	19,110	21,283	717	2,173
Islington and St. Pancras	10,818	12,390	8,967	12,702	1,572	3,735
Southwark and Lambeth	10,121	11,804	9,414	10,951	1,683	1,537
Kensington, Marylebone, &c.	19,525	17,880	16,558	16,892	1,645	334
	59,510	61,837	54,049	61,828	2,327	7,779
Outer East*: Hackney, Edmonton, &c.	31,222	38,046	32,847	37,918	6,824	5,071
Barnet	861	762	735	1,059	99	324
Camberwell	9,579	8,480	9,372	6,502	1,117	2,870
Croydon	4,919	7,767	4,718	7,217	2,848	2,499
	46,599	55,055	47,672	52,696	8,456	5,024
Outer West*: Hampstead	1,229	763	2,123	1,801	466	322
Hendon	4,568	6,340	4,968	6,416	1,772	1,448
Wandsworth	6,065	5,570	8,050	8,394	495	344
Fulham	6,801	6,338	7,638	6,988	463	650
	18,663	19,011	22,779	23,599	348	820
Totals	3,038	3,219	7,484	4,955	6,257	2,529

* In the whole "Outer" and "Exterior" districts there was a gain of children under 15 in the second decennium equal to 11.1 per cent. on the commencing population of males, 11.7 per cent. on that of females.

It will be noticed that London is responsible for the main variation as between the gains of the sexes, Nottingham and Manchester coming next. And as respects the sub-divisions of London, we find as above.

The only apparent reason for increased losses or smaller gains of females, as compared with males, seems to be that the ratio of female domestics to population has fallen in all parts of the Metropolis, so that a diminished immigration of girls seeking domestic service must have left the net loss by emigration from London at a higher point than when such emigration was counterbalanced by a larger importation of domestics. The diminished proportion of children may well account for the smaller need of nursemaids.

The rural localities, where the loss of boys has diminished without a proportionate decrease in the loss of girls at this age, include the following, amongst others:—

Age 0-15.	Males (loss).		Females (loss).		Losses per cent. on Commencing Population.			
					Males.		Females.	
	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.	1881-90.	1891-00.
Northampton, &c. . . .	3,660	1,057	3,896	2,351	3.9	1.3	4.3	2.9
Gloucester and Somerset . . .	4,184	2,891	4,177	3,731	4.1	3.1	4.1	4.1
Bucks and Oxford	1,061	637	990	1,049	1.7	1.1	1.6	1.8
Essex and Herts	679	*361	1,572	759	1.0	*.6	2.4	1.3
Kent and Surrey	2,071	13	2,260	758	3.6	..	4.0	1.5
Cornwall	1,594	686	1,391	753	4.8	2.3	4.4	2.7
Carmarthen, &c.	2,994	1,152	2,449	1,240	4.9	2.0	4.1	2.2
Montgomery, &c.	2,587	706	2,366	906	7.9	2.5	7.4	3.3
Denbigh and Flint	1,179	355	802	274	8.0	2.7	5.6	2.1
Cumberland, &c.	1,926	1,480	1,462	1,462	6.9	6.0	5.2	6.1
Durham, &c.	2,676	958	2,577	1,239	8.5	3.4	8.4	4.4
Leicester, Notts and Derby	2,490	861	2,472	1,633	3.2	1.2	3.3	2.2
Stafford, Warwick and Worcester	2,422	1,139	2,724	1,950	3.4	1.7	3.9	2.9
	29,523	11,574	29,082	18,105				

* Gain.

These figures present no peculiarity requiring explanation. The rural parts of Sussex showed a gain of boys, and a less considerable gain of girls in 1891-1900, but this was almost the sole exception to the rule, though the Essex, Kent and Bucks groups appear to retain unusually large proportions of young folks.

Turning to individual towns and districts, we find that an apparent immigration of children aged 0-15, amounting to at least 5 per cent. on the commencing number, was observed in 1891-1901 in the following places.

Firstly, in thirteen places where persons aged 15-40 increased as shown:—

	Immigrants per cent., age 15-40, in 1891-00.		Immigrants per cent., age 0-15, in 1881-90.		Immigrants per cent., age 0-15, in 1891-00.	
	Males.	Females.	Males.	Females.	Males.	Females.
Weymouth*	29.0	5.7	1.4	2.9	5.4	6.6
Blackpool	26.2	28.9	11.0	13.5	22.2	24.4
Southend	21.4	25.9	5.6	10.2	25.5	27.2
Harrogate	17.9	23.7	10.9	9.0	19.9	18.1
Llandudno	14.1	18.8	10.0	12.9	13.1	13.3
Bournemouth†	1.5	16.7	22.5	25.8	5.8	7.5
Folkestone	12.3	10.2	.5	1.5	5.9	5.6
Southampton	12.5	8.8	.7	.1	7.9	9.9
Nuncaton	12.0	9.1	4.4	2.9	9.9	10.8
Morecambe	8.9	10.5	4.4	5.3	9.6	9.8
Kettering	5.7	8.6	7.6	6.6	4.1	5.5
Doncaster	7.9	6.0	2.3	2.1	9.6	7.7
Swindon	4.2	6.2	1.6	1.1	5.0	6.1

* Shows a large increase of soldiers.

† Increase of males much checked.

In all these cases it seems credible that the immigration shown at age 0-15 in 1891-1900 actually took place.

Secondly, in eighteen places there were counted in 1901 greater numbers of male children aged 10-15 than of infants aged 0-5, pointing to an actual influx to schools or to some industrial employment, and in five an insignificant shortage, meaning much the same:—

	1901. Excess per cent. of those aged 10-15 over those aged 0-5.		Age 0-15 Immigrants per cent.			
			1881-90.		1891-00.	
	Males.	Females.	Males.	Females.	Males.	Females.
Thanet	39.3	21.4	15.3	14.6	28.3	17.7
Tilbury*	34.0	7.5	27.9	15.2	18.2	5.1
Brentwood†	31.1	13.0	16.0	4.2	12.2	10.0
Easthampstead (Sandhurst)	25.5	1.1	1.6	.9	8.9	1.7
Bedford	22.1	12.4	12.4	10.5	9.4	6.9
Malvern	20.9	7.4	1.7	1.5	6.6	2.5
Herne Bay	19.8	9.0	7.5	.9	16.8	16.3
Staines*	16.1	13.8	23.9	7.3	23.1	18.1
Eastbourne	15.1	10.4	10.3	10.4	13.2	7.8
Rugby	9.3	10.8	1.9	4.0	15.1	8.1
Weston-super-Mare	8.8	17.0	2.4	2.7	6.9	7.8
Rhyl	5.8	4.5	.3	.6	5.6	3.8
Guildford	4.4	4.6	9.9	5.2	10.4	4.8
Worthing	3.5	6.5	10.6	11.9	13.3	14.2
Hastings	3.0	7.6	7.4	8.7	5.3	7.3
St. Germans*	2.3	8.5	6.3	1.5	7.9	3.7
Reigate	1.3	10.7	8.0	6.8	9.7	11.8
Aldershot (North) . . . . .	.2	15.7	7.6	5.8	9.3	5.3
Tunbridge . . . . .	.2	2.0	2.6	3.0	6.0	3.9
Watford . . . . .	.4	.2	12.4	9.1	16.4	14.4
Stockport*	1.8	6.2	3.6	4.0	6.6	4.6
Godstone	2.5	13.1	2.6	1.0	7.6	5.5
Luton	3.5	1.5	2.7	2.5	2.5	5.0

* Schools, training ships, &c., for boys cause the disproportionate gains shown.

† This district contains schools of a public character.

Five places remain, where apparent gains at age 0-15 are almost as easily accounted for:—

	Immigrants per cent. at age 15-40 in 1891-00.		Immigrants per cent. at age 0-15.			
			1881-90.		1891-00.	
	Males.	Females.	Males.	Females.	Males.	Females.
Dover	10.9	6.8	3.4	1.1	9.4	6.4
Grimsby	3.5	8.5	1.7	2.2	4.3	5.8
Clacton	4.3	.3	1.6	2.9	3.9	6.7
Poole	4.2	11.3	10.4	12.2	3.1	5.5
Uxbridge	8.1	5.2	1.1	2.8	17.1	12.3

Immigrants into Dover and Grimsby in 1891-1900 at ages 15-40 are sufficiently numerous to account for the increase shown in the numbers of children. The number of girls found in Clacton district at age 10-15 seems to suggest an influx of nurse-girls, and in a less degree the same seems to be true of Poole. Uxbridge is influenced by migrations of whole families from London; there is also a workhouse school belonging to the Borough of Marylebone.

It will be observed that of the 41 instances of gains reaching 5 per cent. 23 belong to the residential class, and that the military and industrial districts of Folkestone, Weymouth, St. Germans, Dover, Godstone and Rugby contain residential elements. Excluding these, only seven industrial, one military, one colliery, one textile manufacturing and two miscellaneous districts are found in the list. Even Stockport has some claim to rank in the partly residential class, through its proximity to Manchester.

Some other places seem to have gained inhabitants at age 0-15 in 1891-1900, although not to the extent of 5 per cent. on the commencing population; amongst them the following eight:—

	Immigrants per cent. at age 15-40 in 1891-00.		1901. Deficiency per cent. of those aged 10-15 under those aged 0-5.		Age 0-15 Immigrants per cent.			
					1881-90.		1891-00.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Gloucester . . . . .	.4	5.3	14.0	8.2	3.8	1.7	4.3	4.0
Ipswich	3.0	1.5	5.1	2.0	.2	.9	3.6	4.1
Chesterfield group*)	5.1	3.2	17.4	18.8	.2	..	4.1	5.0
Rotherham	6.1	1.4	21.4	24.7	1.5	1.3	3.2	2.5
Rochdale	2.4	2.8	6.0	9.8	1.2	1.9	3.8	3.6
Carlisle	3.1	6.1	6.5	4.7	4.9	3.8	2.7	1.9
Lincoln	3.2	.3	5.7	3.3	4.6	3.3	2.1	1.8
King's Lynn . . . . .	.8	3.3	4.6	.7	6.5	3.5	2.2	.7

* Influenced by the inclusion of an extension of the suburbs of Nottingham likely to attract families with children.

In some of these places, it appears to me, there may have been a partial failure to register births; none of them seem likely to attract many children either to schools or to take part in industrial work.

In Oxford, children under five have fallen off, whilst those aged 10-15, especially boys, have increased in numbers. Here there is shown, in 1891-1901, a slight gain of boys and loss of girls, at the ages 0-15.

I regret the absence of Tables showing the ages of immigrants found in each important place and in the counties, distinguishing those born in other parts of the country, and born in places beyond the national limits. With the help of such data it would be in our power to form opinions as to the origin of young immigrants.

Before quitting the subject, a few places may be noted where apparently there has been an exodus of children, apart from the losses which are general in the rural residues:—

	Losses per cent. at age 0-15.				Enumerated in 1901.					
	1881-91.		1891-01.		Males aged			Females aged		
	Males.	Females.	Males.	Females.	13-14.	14-15.	15-16.	13-14.	14-15.	15-16.
Dewsbury	2.5	2.2	2.5	1.8	1,642	1,615	1,678	1,634	1,739	1,703
Huddersfield	1.3	.1	3.1	3.4	1,562	1,510	1,491	1,555	1,648	1,640
Saddleworth	5.4	4.7	7.9	6.7	162	177	159	166	166	173
Glossop	gain	gain	7.7	5.2	249	257	266	302	259	257
Macclesfield	3.8	5.0	4.3	4.8	615	660	594	555	582	609
Kidderminster	7.3	4.3	2.3	4.2	413	437	431	455	442	438
Cockermouth	gain	gain	7.3	7.1	820	824	749	788	763	727
Whitehaven	10.5	9.6	4.6	7.0	655	639	629	634	601	617
Barrow	7.0	6.4	5.0	4.3	555	544	602	538	612	533
Stafford	7.5	9.1	5.7	3.6	300	344	329	327	301	306
Burton-on-Trent	3.9	4.5	2.3	3.4	989	1,097	1,034	961	972	953
Wolverhampton	5.0	5.5	1.7	2.7	4,479	4,599	4,526	4,423	4,374	4,363
Redruth	gain	gain	2.9	2.1	500	546	547	516	513	478
Helston	6.7	4.0	5.3	5.6	209	228	189	198	214	203
Falmouth	3.2	.5	4.6	.9	211	201	206	221	229	211
Sheerness	10.8	7.6	4.3	4.8	205	173	212	179	188	173
Canterbury	5.3	4.0	4.5	5.6	202	175	179	173	167	184

All these districts, except the last two, are engaged in industrial work. The losses they may have sustained were apparently at early ages, and the numbers aged 13-14 and upwards were not further depleted to any great extent.

MOVEMENT OF POPULATION IN DIVISIONS OF LONDON.

It is difficult in most cases to sub-divide our large towns so as to discriminate between the central and fully covered districts and the more or less thinly peopled suburbs. Even in the case of London it would be impossible to devise a perfect scheme, since such registration districts as St. Pancras and Lambeth include suburbs fairly remote as well as portions of the centre. But I have arrived at a plan which suffices to bring out the main characteristics of the movement of population in the two orders of districts.

The movement of population in the central districts is shown in the following Tables, and varies as between one decennium and another less than might be expected:—

MALES.	Gain or loss (1881-90). Age at end of period.					Gain or loss (1891-00). Age at end of period.				
	0-15.	15—	20—	25—	30 and up- wards.	0-15.	15—	20—	25—	30 and up- wards.
	City.	233	787	353	1,298	2,878	447	1,010	511	919	2,434
Holborn	4,879	488	235	1,515	11,035	5,147	913	655	1,073	8,816
Westminster . .	4,144	87	1,183	274	8,797	4,310	296	1,515	227	6,832
Kensington, &c. .	19,525	46	6,681	2,443	20,183	17,880	151	6,679	1,445	15,083
Shoreditch, &c. .	19,046	5,123	1,923	1,369	20,723	19,763	6,214	3,079	3,996	21,356
Islington, &c. . .	10,818	1,073	4,082	3,837	11,579	12,390	2,153	2,845	2,596	11,863
Southwark, &c. .	10,121	1,434	1,623	2,060	10,444	11,804	2,014	891	1,074	10,974
	68,300	7,198	11,714	3,884	85,639	70,847	9,837	8,707	646	77,358
FEMALES.										
City.	332	358	303	1,057	4,531	266	263	537	560	3,707
Holborn	4,499	553	286	905	9,161	4,947	982	573	1,070	8,861
Westminster . .	4,087	241	1,683	730	11,235	4,299	297	2,294	294	10,118
Kensington, &c. .	16,558	8,094	19,757	5,741	46,113	16,892	8,492	21,408	9,442	37,682
Shoreditch, &c. .	19,110	7,699	3,011	2,016	25,934	21,283	5,385	2,190	3,847	26,648
Islington, &c. . .	8,967	795	5,580	1,788	16,585	12,702	541	4,884	2,150	15,413
Southwark, &c. .	9,414	813	2,081	1,308	12,800	10,951	671	1,998	1,566	11,724
	62,967	423	26,107	4,069	126,359	71,340	1,473	28,353	7,975	114,153

Nearly the whole of the immigrants from beyond sea must in the first instance settle in the central districts. The City itself has an exceedingly peculiar population, consisting largely of caretakers in charge of premises, drapers' assistants, hotel employes and guests at hotels, &c. These are all likely to be in good health, and would probably remove elsewhere in case of illness. All paupers are sent to outside places. Lastly, a great hospital exists which treats numerous cases from places beyond the City boundary, as the high death rate within the City and the low death rate in the Holborn district seems to imply. Holborn and Westminster are also much influenced by disturbing causes; but places like Islington represent a closer approximation to ordinary family life.

The heavy losses of the central districts, due to the removal of families to the suburbs, must in a measure extend to persons aged 15-30, and therefore, if we could arrive at a knowledge of the results of such removals, we should find that the gain of population aged 15-30 from other causes is much greater than the Tables exhibit. This will presently be illustrated more definitely.

The Tables opposite supply data as to the movement of population in the districts I have styled "Outer London" and "Exterior London."

These figures show losses of males at Barnet and in the Croydon group which might be expected in 1881-1890, when portions of those districts were doubtless so far rural as to be unable to furnish employment to the rising generation of young men. Similar but smaller losses are shown at the same places in the second decennium.

As to the loss of women aged 30 and upwards sustained by Hampstead in the second decennium, it should be remembered that the small gain at this age in 1881-1890 and the actual loss in 1891-1900 occur after excep-

MALES.	Gain or loss (1881-90). Age at end of period.					Gain or loss (1891-00). Age at end of period.				
	0-15.	15—	20—	25—	30 and up- wards.	0-15.	15—	20—	25—	30 and up- wards.
	Fulham, &c. . .	6,801	1,130	1,437	3,503	11,117	6,938	123	2,053	4,383	12,154
Camberwell, &c.	9,597	2,567	1,372	3,511	13,944	8,480	2,082	2,389	2,921	13,012
Hackney, &c. . .	31,222	6,877	6,462	10,723	38,301	38,046	4,882	6,239	14,021	45,119
Wandsworth, &c.	6,065	1,573	2,351	3,740	13,438	5,570	679	2,398	4,724	14,956
	53,685	12,147	11,622	21,477	76,800	58,434	7,766	13,079	26,049	85,241
Hampstead . . .	1,229	534	782	872	2,682	763	73	852	709	944
Croydon, &c. . .	4,919	893	2,375	177	5,383	7,767	576	1,584	972	9,928
Hendon	4,568	797	568	1,007	5,320	6,340	1,733	2,275	3,557	9,539
Barnet	861	150	342	189	2,266	762	120	197	174	2,094
	11,577	588	1,367	2,245	15,651	15,632	1,350	1,346	5,412	22,505
FEMALES.										
Fulham, &c. . . .	7,638	4,917	6,289	5,152	14,301	6,988	3,656	6,005	5,337	10,436
Camberwell, &c.	9,372	5,758	7,849	5,078	9,481	6,502	3,331	6,741	5,126	5,654
Hackney, &c. . . .	32,847	11,949	12,051	10,247	38,419	37,918	11,108	13,008	15,256	45,559
Wandsworth, &c.	8,050	6,698	8,125	5,606	12,787	8,394	6,650	9,448	7,036	12,477
	57,907	29,322	34,314	26,083	74,988	59,802	24,745	35,202	32,755	74,126
Hampstead	2,123	2,937	3,761	1,582	984	1,801	2,585	4,042	1,750	2,166
Croydon, &c. . . .	4,718	1,748	2,197	1,384	3,302	7,217	1,882	3,075	2,308	6,775
Hendon	4,968	2,001	2,143	1,933	5,927	6,416	2,674	3,458	3,916	9,926
Barnet	735	715	925	562	1,527	1,059	537	896	611	1,943
	12,544	7,401	9,026	5,461	11,740	16,493	7,678	11,471	8,585	16,478

tionally heavy and continuous immigration of women at earlier ages into this small district. In suburban London generally the gain of females aged 15-25 does not much exceed that at ages 0-15; but in Hampstead it is more than three times as large.

As a mere working theory, let us just imagine that in 1881-1891 there was a total immigration into "Outer London" from places outside the Metropolitan area of 3000 girls aged 0-15, and that 1000 more were absorbed by the "Exterior" districts. Assume also that in the next decennium only 1000 girls of the age mentioned immigrated into the exterior districts from outside places. The gains by migration from the Central districts would in such case be as under:—

In 1881-91 "Outer London" gains	53,685	males,	54,907	females.
In 1891-01	58,434	"	59,802	"
In 1881-91 "Exterior London" gains	11,577	"	11,544	"
In 1891-01	15,632	"	15,493	"

If we make the further assumption that for every 1000 immigrants of both sexes from the centre aged 0-15 there were also others, viz.:—

110	males	and	110	females	aged	15-20
110	"		110	"		20-25
220	"		220	"		25-30
240	"		210	"		30-35
160	"		110	"		35-40

the following figures would then represent the gains and losses of the "Outer" and "Exterior" districts *not accounted for* by the vast movement of families from the centre to those districts:—

MALES.	1881-1890.					1891-1900.				
	15—	20—	25—	30—	35-40.	15—	20—	25—	30—	35-40.
Fulham, &c. . .	381	74	481	78	148	1,343	587	1,452	1,135	660
Camberwell . . .	481	714	661	528	404	434	741	375	401	141
Hackney, &c. . .	93	508	3,217	4,512	2,172	3,474	2,117	2,691	3,299	1,432
Wandsworth . . .	197	975	988	771	972	857	862	1,653	1,929	1,211
	204	321	2,409	4,347	1,752	5,240	73	39	166	580
Hampstead . . .	254	502	312	49	133	122	657	319	180	73
Croydon, &c. . .	1,931	3,413	1,899	1,420	634	2,224	3,232	2,324	1,187	420
Hendon . . .	252	481	1,091	806	236	330	872	751	76	343
Barnet . . .	25	517	161	79	243	58	375	182	232	230
	1,954	3,909	2,839	2,098	494	2,074	2,078	1,436	1,059	80
FEMALES.										
Fulham, &c. . .	3,406	4,778	2,130	314	671	2,190	4,539	2,406	443	65
Camberwell . . .	3,672	5,763	906	1,096	618	1,683	5,093	1,830	127	1,012
Hackney, &c. . .	4,979	5,081	3,693	3,054	441	2,752	4,652	1,456	1,122	940
Wandsworth . . .	5,322	6,749	2,854	808	388	5,114	7,912	3,965	1,257	406
	17,379	22,371	2,197	3,028	882	11,739	22,196	6,745	451	269
Hampstead . . .	2,657	3,481	1,022	697	353	2,390	3,847	1,360	1,305	1,048
Croydon, &c. . .	710	1,159	692	1,941	791	234	1,427	988	1,767	888
Hendon . . .	952	1,094	165	451	205	1,271	2,055	1,110	590	500
Barnet . . .	540	750	212	16	140	359	718	255	20	147
	4,859	6,484	377	3,105	799	4,254	8,047	1,737	2,502	1,289

These hypothetical figures have no value save so far as they suggest movements of population which commend themselves to us as being probable, but which must inevitably be overshadowed by the great transfer of families from the centre to the suburbs which is always in progress.

Amongst these movements, the most undoubted is the immigration of female domestics direct, in addition to those who form part of the migrating families.

The apparent loss of male inhabitants (with some females) by the Hackney group (including Edmonton, West Ham, &c.) may represent a smaller power of attraction than the hypothetical one. Similar losses by the Croydon and Barnet districts may probably represent real migrations from outlying parts towards the centre; and Barnet would show heavier losses but for the inclusion in that district of Colney Hatch lunatic asylum. Gains of men in Fulham, Wandsworth (with Battersea) and Hendon may, perhaps, be attributed to the activity of the building trades in those districts. The Camberwell group (including Woolwich) must be gaining young soldiers and losing army men later in life. Hampstead, after receiving large numbers of female immigrants, loses heavily, as already noticed, at the higher ages, and women as well as men seem to leave the Croydon district at ages 25-35.

It will of course be borne in mind that the figures in the last Table are purely hypothetical, and must deviate from the truth in varying degrees.

Central Districts. 1881-1890.	Total gain or loss by migration in Central Districts.		Hypothetical loss of migrants to Suburbs.		Leaving (as the result of other migrations) gains or losses.	
	Males.	Females.	Males.	Females.	Males.	Females.
0-15	68,300	62,967	65,262	66,451	3,038	3,484
15-20	7,198	423	14,485	14,485	7,287	14,908
20-25	11,714	26,107	14,485	14,485	26,199	40,592
25-30	3,884	4,069	28,970	28,970	32,854	33,039
30-35	17,295	21,276	31,604	27,654	14,309	6,378
35-40	20,172	25,984	21,068	14,485	896	11,499
	97,367	79,628	175,874	166,530	78,507	86,902
1891-1900.						
0-15	70,847	71,340	74,066	75,295	3,219	3,955
15-20	9,837	1,473	16,430	16,430	6,593	17,903
20-25	8,707	28,353	16,430	16,430	25,137	44,783
25-30	646	7,975	32,858	32,858	32,212	40,833
30-35	17,186	19,891	35,844	31,362	18,658	11,471
35-40	18,556	24,088	23,896	16,430	5,340	7,658
	108,365	77,518	199,524	188,805	91,159	111,287

These figures, which show how the hypothesis works in the central districts taken collectively, represent, I think, an approach to the truth. That the central parts of London receive large numbers of immigrants from abroad and from the provinces is certain, and having regard to what is known as to the supply of domestic servants from the rural districts, the excess shown of female immigrants over males is not greater than might well be expected. The manner in which the gain of women from outside seems to diminish at age 30-35 and to become a loss on balance at 35-40 is likewise in accordance with probability.

A general reflection which naturally occurs on considering the figures is this. Since the districts treated as central include many localities which are gaining population, such as the remoter parts of Lambeth, St. Pancras and Islington, it is evident that a line of demarcation more accurately drawn would show still greater losses by the centre, and still larger gains by the suburban districts, through the migrations of families within London. And since the gains of the outer districts are so large, and it is equally impossible to select a boundary externally of a satisfactory nature, several districts outside the limits which I have assigned to London, such as Uxbridge, Staines and Watford, are recipients of numbers of immigrants from London, the exclusion of whom by a variation of boundary would greatly alter their statistics, and would tend to swell the apparent gains of the Metropolis. Such a state of things is not confined to London, and it is this fact which makes me anxious, in every case where it is practicable, to fix upon a wide boundary for every large and growing town.

At ages exceeding 35 the movements of population in the Metropolis are largely internal, especially in the case of males; the sub-divided figures are given in the next Table, and are fairly constant and symmetrical.

TABLE SHOWING THE NET LOSSES AND GAINS BY MIGRATION IN SUB-DIVISIONS OF LONDON AT AGES THIRTY AND UPWARDS.

1881-1891.	Central London. (Losses.)		Outer London. (Gains.)		Exterior District. (Gains.)		Totals.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
30-35 .	17,295	21,276	21,710	19,772	3,449	1,749	7,864	245
35-40 .	20,172	25,984	15,619	12,825	3,203	1,743	1,350	11,416
40-45 .	11,071	22,263	11,670	7,670	2,477	1,322	3,076	13,271
45-50 .	8,849	17,708	8,100	4,773	1,990	1,051	1,241	11,884
50-55 .	7,816	12,157	4,786	4,833	1,025	927	2,005	6,397
55-60 .	8,448	11,431	2,073	3,844	699	805	5,676	6,782
60-65 .	5,713	7,432	2,229	4,577	559	813	2,925	2,042
65-70 .	2,451	2,857	3,046	5,514	648	1,178	1,243	3,835
70-75 .	2,179	2,862	3,715	5,429	866	1,099	2,402	3,666
75 and upwards	1,645	2,389	3,852	5,751	735	1,053	2,942	4,415
	85,639	126,359	76,800	74,988	15,651	11,740	6,812	39,631
1891-1901.								
30-35 .	17,186	19,801	28,540	25,278	6,411	4,033	17,765	9,420
35-40 .	18,556	24,088	19,496	13,275	5,060	2,135	6,000	8,678
40-45 .	10,519	19,646	12,087	5,998	3,494	1,640	5,062	12,008
45-50 .	8,348	14,496	7,420	3,526	1,976	1,304	1,048	9,666
50-55 .	6,047	11,228	4,910	2,649	1,615	1,041	478	7,538
55-60 .	6,846	9,325	1,988	3,050	836	1,324	4,022	4,951
60-65 .	4,088	6,741	1,856	4,232	728	1,066	1,504	1,443
65-70 .	2,192	3,387	2,307	4,655	737	1,155	851	2,423
70-75 .	1,527	2,274	3,134	5,161	876	1,396	2,483	4,283
75 and upwards	2,048	3,077	3,503	6,302	772	1,384	2,227	4,609
	77,358	114,153	85,241	74,126	22,505	16,478	30,388	23,549

AGE-CONSTITUTION OF POPULATIONS.

Enough has been said to make it a familiar fact that the age-constitution of particular populations varies greatly. It will now be useful to examine the extent of such variations.

The upper Table opposite gives some details founded on the 1891 Census as modified in Appendix C.

This Table displays the fact that the older men vary in proportion as between 9·8 and 25·1 to one hundred of young people, the disparity being partly caused by low birth rates and partly by high death rates, also in a measure by losses and gains by migrations in middle life. The deaths of the old exceed in number those of the young in rural places, whilst in the colliery districts they fall to little more than one-fourth of that proportion.

If we sub-divide London as shown in Appendix C, we have the lower Table opposite.

This Table points to the low birth rate and influx of adults which in the City and Westminster dwarfs the proportionate numbers of children, affecting in a less degree the Kensington and Hampstead sections; also the comparatively high birth rate in the Shoreditch, Hackney, Fulham and Hendon sections. The mortality at higher ages does not occasion much

Males, 1891.	Living aged 60 and upwards to 100 Young people.*	To 100 aged 25-45.		Dying in next Decennium so as to affect Population in 1901 at		Ratio of last columns as 100 to
		Young.*	60 and upwards.	Ages 0-15.	Ages 70 and upwards.	
Large towns	11·2	171	19	478,195	166,077	35
Textile manufacturing towns	13·1	155	20	121,657	51,323	42
Colliery districts	9·8	196	19	203,375	61,507	30
Industrial:—						
Middlesbro', &c.	10·5	191	20	28,241	9,213	33
Wolverhampton, &c.	11·0	200	22	44,781	14,448	32
Southampton, &c.	15·4	187	29	22,653	12,857	57
Old towns	16·5	171	28	49,521	30,205	61
Military, 4 towns	15·9	164	26	21,211	11,543	54
" other districts	19·6	151	29	10,147	8,461	83
Residential:—						
With lunatic asylum	20·7	162	33	8,916	8,334	93
Brighton, &c.	18·7	168	31	20,213	14,266	71
Bournemouth, &c.	21·7	154	33	3,831	3,821	100
Other	21·8	172	38	14,992	13,950	93
Miscellaneous	22·0	149	33	1,288	1,507	117
Rural residues	25·1	170	43	171,326	190,513	111
England and Wales	14·9	174	26	1,200,352	598,025	50

* The young people are those counted in 1891 at age 0-5 plus ten years' births in 1891-1900.

Males, 1891.	Living aged 60 and upwards to 100 Young people.	To 100 aged 25-45.		Dying in next Decennium so as to affect Population in 1901 at		Ratio of last columns as 100 to
		Young.	60 and upwards.	Ages 0-15.	Ages 70 and upwards.	
Central:—						
London City	28·5	74	21	1,645	741	45
Holborn	10·7	160	17	7,787	1,371*	18
Westminster	20·0	93	19	3,168	1,739	55
Kensington	16·5	128	21†	22,059	11,745	53
Shoreditch	10·1	184	19	47,630	14,616	31
Islington	11·9	146	17	22,200	8,785	40
Southwark	11·0	165	18	23,667	6,957	29
Outer:—						
Fulham	10·2	185	19	15,664	4,941	32
Camberwell	11·9	174	21	30,622	13,427	44
Hackney	9·5	194	18	44,427	14,233	32
Wandsworth	11·3	171	19	17,116	7,203	42
Exterior:—						
Hampstead	15·0	136	20	2,653	916	35
Hendon	8·0	204	16	4,412	1,394	32
Croydon	16·5	165	27	6,647	4,890	74
Barnet	14·9	160	24	1,185	958	81
Totals	11·6	167	19	250,882	93,916	38

* Many seem to die outside the district.

† Chelsea shows many pensioners and also many "retired from business."

diversity, save that in the Croydon and Barnet sections there is evidence of the inclusion of rural populations with lower death rates than those experienced in the major part of the Metropolitan area. The fact that London City sends all paupers away would decrease the numbers of elderly inhabitants, were it not counterprised by the introduction of a good number of old men acting as caretakers, messengers and porters. But the statistics of the central square mile are vitiated in many ways, and those of Westminster only less so.

We may take it that the proportion of old men to the young is pretty constant in the rural portions of the country, varying between 23·7 and 29·3 in 18 out of 24 groups of districts, and averaging 25·1 as shown above. The same proportion is 20 or more in a large proportion of the residential, military and miscellaneous districts, and in these the lowest figures are shown in the next Table:—

Males, 1891.	Living aged 60 and upwards to 100 Young people.	To 100 aged 25-45.		Dying in next Decennium so as to affect		Ratio of last columns as 100 to
		Young.	60 and upwards.	Ages 0-15.	Ages 70 and upwards.	
Farnham	11·5	148	17	1,693	766	45
Blackpool	13·4	198	26	2,671	1,314	49
Chatham	13·9	159	22	4,373	2,126	49
Colchester	14·9	151	22	1,188	689	58
Poole	15·2	195	30	891	536	60
Morecambe	15·2	156	24	2,122	1,198	56
Portsmouth	15·6	167	26	8,175	4,594	56
Eastbourne	15·7	163	26	1,091	669	61
Windsor	16·0	143	23	913	709	78
Southend	16·6	196	32	1,215	849	70

In the towns and industrial districts the proportion of the old is usually low, especially in the colliery districts, the few exceptions being shown in the next Table:—

Males, 1891.	Living aged 60 and upwards to 100 Young people.	To 100 aged 25-45.		Dying in next Decennium so as to affect		Ratio of last columns as 100 to
		Young.	60 and upwards.	Ages 0-15.	Ages 70 and upwards.	
Textile towns:—						
Macclesfield	23·8	168	40	1,933	1,750	91
Kidderminster	22·0	160	35	1,235	1,013	82
Industrial:—						
Falmouth	25·2	151	38	681	609	89
Helston	24·0	177	42	713	620	87
Penzance	20·5	191	39	1,720	1,202	70
Rugby	22·4	172	38	762	751	99
Stafford	19·5	160	31	842	833	99
Old towns:—						
Exeter	24·3	159	39	2,693	2,475	92
Maidstone	22·0	154	34	1,496	1,417	95
Ipswich	20·3	179	36	2,885	2,225	77
Lincoln	19·9	159	32	2,267	1,763	78
King's Lynn	19·5	180	35	727	508	70

Finally, the most remarkable instances of low proportions of the old in towns and industrial places are these:—

Males, 1891.	Living aged 60 and upwards to 100 Young people.	To 100 aged 25-45.		Dying in next Decennium so as to affect		Ratio of last columns as 100 to
		Young.	60 and upwards.	Ages 0-15.	Ages 70 and upwards.	
Colliery districts:—						
Wigan	8·5	197	17	31,288	7,933	25
Barnsley	9·3	199	18	13,253	3,854	29
Glamorgan	9·6	185	18	53,849	15,254	28
Durham	9·6	198	19	75,884	22,778	30
Industrial:—						
Barrow	7·2	156	11	2,191	519	24
Rotherham	8·8	205	18	5,245	1,406	27
Potteries	9·0	208	19	15,681	3,751	24
Swindon	9·1	170	16	1,427	472	33
Middlesbro'	9·2	181	17	8,438	2,395	28
Walsall	10·1	213	22	6,034	1,695	28
Textile:—						
Burnley	9·1	174	16	9,328	2,548	27
Bolton	9·5	175	17	11,653	3,483	30
Blackburn	10·2	169	17	10,433	3,230	31
Oldham	10·9	150	16	9,880	3,238	33
Old towns:—						
Wakefield	10·4	175	18	4,996	1,712	34
Derby	11·4	156	18	3,850	1,591	41

DEATH RATES IN CLASSES OF DISTRICTS.

It is of great importance that the public should be enabled to follow with some degree of accuracy the progress of sanitation, which is essentially a matter of local concernment, and this enquiry, based on data extending over two decennial periods, is quite as important from the point of view of the true measurement of mortality as in respect of the mode and amount of migrations.

The study of death rates is indeed a very different matter from that of migrations. Yet migrations of healthy persons from rural homes to towns or industrial districts, and again the return of emigrants from such places to rural homes after having lost their health, may largely influence death rates at certain periods of life. In my opinion the rates of mortality amongst persons aged 5-35 at the commencement and 15-45 at the close of a decennium are considerably modified by the effect of such migrations. As a very large proportion of deaths occur at earlier or later ages,* I think we may, in arriving at a judgment as to the salubrity of the conditions under which people in various localities exist, ignore those ages at least provisionally. As the mortality amongst younger persons depends in great measure upon the care and kindness of their seniors, I would also exclude this from consideration, except so far as concerns districts showing low rates of mortality. These last may, I think, be treated as being naturally healthy, even if heavy death rates at higher ages point to unsanitary conditions affecting older persons. Fortunately the facts are

* See the figures in Appendix F, page 688.

given separately for the two sexes, and where the statistics of either sex are not mutually confirmatory we have warning that some explanation must be sought.

As an instrument of comparison I have devised a scale of mortality for healthy places, which approximately fits the case of the best rural districts as in 1881-1890 and which represents the loss by death in ten years *per cent.* on the mean population affected, which I have roughly taken to be the arithmetical mean between the population at the commencement and end of the decennium, the latter being of course affected by immigration and emigration during the interim. Thus, if there were in 1881 1,568,579 males aged 5-10 who lost 58,572 by death and 39,332 by emigration in excess of immigration, so that in 1891 only 1,470,675 remained, I calculate the average population to be 1,519,627 and ten years losses by death 3.9 per cent.

The scale adopted is in fact the following:—

Terminal Age.	Loss per cent.		Female loss, the Male being 100.	Terminal Age.	Loss per cent.		Female loss, the Male being 100.
	Males.	Females.			Males.	Females.	
0-15 .	15.0	12.8	85	45-50 . . .	9.1	8.5	93
15-20 .	2.9	3.1	107	50-55 . . .	11.2	9.9	88
20-25 .	3.1	3.4	110	55-60 . . .	14.6	12.4	85
25-30 .	4.1	*5.0	122	60-65 . . .	20.1	17.6	88
30-35 .	5.5	*6.3	113	65-70 . . .	29.7	26.0	88
35-40 .	6.7	*7.0	104	70-75 . . .	44.1	38.8	88
40-45 .	7.8	7.6	97	75 and upwards	104.0	95.8	92

* Possibly these figures are too high, but I am unwilling to overstate the excess of mortality in rural districts at these ages.

It is obvious that at the higher ages, when the rate of mortality continually increases, the arithmetical mean is not the true mean of population exposed to risk, and it is absurd to suppose that the mean loss by death at age 75 and upwards approximates to, much less exceeds, 100 per cent. But, for purposes of comparison only, the ratios will be serviceable.

The actual death rates, derived from my Tables, in the rural parts of the Eastern and South-Western Counties, were in 1881-1890 as under:—

Terminal Age.	Eastern.		South-Western.		Terminal Age.	Eastern.		South-Western.	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
0-15 .	15.3	12.9	14.4	12.5	45-50 .	8.8	8.6	10.2	8.7
15-20 .	3.2	3.8	3.1	3.5	50-55 .	10.8	9.8	12.8	10.5
20-25 .	3.7	4.5	3.7	4.4	55-60 .	14.2	12.2	16.1	13.4
25-30 .	4.5	5.8	4.6	5.5	60-65 .	19.6	17.1	21.9	18.6
30-35 .	5.5	6.7	6.0	6.4	65-70 .	29.3	25.5	31.2	28.2
35-40 .	6.6	7.3	7.4	7.1	70-75 .	42.9	37.6	46.6	42.4
40-45 .	7.6	7.9	8.6	7.8	75 and upwards	102.7	94.7	103.0	97.8

Using the standard rates as being always equal to 100, these rural rates would be less or more, as shown in the next Table.

Terminal Age.	Eastern.		South-Western.		Terminal Age.	Eastern.		South-Western.	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
0-15 .	102	101	96	98	45-50 .	97	101	112	102
15-20 .	110	123	107	113	50-55 .	96	99	114	106
20-25 .	119	132	119	129	55-60 .	97	98	110	108
25-30 .	110	116	112	110	60-65 .	98	97	109	106
30-35 .	100	106	109	102	65-70 .	99	98	105	108
35-40 .	99	104	110	101	70-75 .	97	97	106	109
40-45 .	97	104	110	103	75 and upwards	99	99	99	102

It will be observed that in devising the scale, allowance was made for the return to the rural districts of emigrants who had lost their health, especially young women, who are less likely than young men to marry and settle at once in the place to which they migrate. Whether this allowance has made the scale too low must be a matter of opinion, but I think it is still a little too high.

Adhering to the standard scale, the figures in the same rural parts for the decennium 1891-1900 are as under:—

Terminal Age.	Eastern.		South-Western.		Terminal Age.	Eastern.		South-Western.	
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.
0-15 .	97	94	90	87	45-50 .	92	92	102	92
15-20 .	90	97	93	97	50-55 .	93	94	105	93
20-25 .	100	103	110	103	55-60 .	92	95	105	103
25-30 .	95	92	102	88	60-65 .	95	94	109	107
30-35 .	91	84	98	81	65-70 .	100	100	109	111
35-40 .	81	83	91	80	70-75 .	103	106	112	115
40-45 .	83	87	92	84	75 and upwards	96	98	98	99

This Table shows at least that the rates of mortality indicated in the scale are not materially below a level which is easily attainable in a healthy rural district. In many such districts the death rates are lower still.

Having thus far justified the scale, let us see how the national averages work out: for each of the two decennial periods.

The figures for England and Wales are:—

Terminal Age.	Males, loss per cent.		Females, loss per cent.		Terminal Age.	Males, loss per cent.		Females, loss per cent.	
	1881-90.	1891-00.	1881-90.	1891-00.		1881-90.	1891-00.	1881-90.	1891-00.
0-15 .	20.5	20.5	17.8	17.8	45-50 .	14.0	13.1	11.6	10.7
15-20 .	3.9	3.2	3.9	3.2	50-55 .	17.4	16.9	13.8	13.4
20-25 .	4.3	3.6	4.3	3.5	55-60 .	22.3	21.9	17.7	17.3
25-30 .	5.6	4.9	5.6	4.5	60-65 .	29.4	29.3	23.9	23.5
30-35 .	7.1	6.2	6.8	5.6	65-70 .	40.8	42.0	34.6	34.9
35-40 .	8.7	7.7	8.1	6.8	70-75 .	56.6	59.1	48.2	50.6
40-45 .	11.3	10.2	9.6	8.5	75 and upwards	113.5	111.0	104.0	102.3

It will be noticed that the large towns, textile manufacturing towns, colliery districts and some of the industrial districts, show high infant mortality, and are amongst those which stand highest at more advanced ages.* The residential districts which contain lunatic asylums show heavy death rates at the higher ages, but as shown in Appendix E, they may really be as healthy as the thirteen "other residential districts." It is curious that after age 65 the death rates for either sex in the three "special" residential districts very closely agree with those in the thirteen "others." I am convinced that these three districts are really healthy, and that the figures shown at ages 45-60 would be much reduced if the deaths of invalid immigrants could be excluded. At earlier ages, as will presently be shown, the phenomena in these three districts are far more striking.

Losses per cent. of Females, 1881-90.	0-15.	45—	50—	55—	60—	65—	70—	75 and up- wards.
10 Large towns	20.6	12.9	15.7	20.6	26.8	39.0	51.2	108.1
22 Towns (textile manufac- tures)	20.6	12.6	15.4	20.8	29.8	42.7	62.2	121.3
7 Industrial (Middlesbro', &c.)	18.0	11.3	13.3	17.4	23.9	34.2	50.2	107.5
6 " (Wolverhampton, &c.)	20.0	11.7	13.9	18.3	25.5	37.9	54.0	108.3
12 Industrial (Southampton, &c.)	15.9	9.9	11.2	14.5	20.0	30.1	42.4	99.9
9 Colliery districts	19.4	12.5	14.6	18.6	26.0	37.1	53.4	109.4
19 Old towns	16.7	11.8	13.8	17.6	23.1	33.8	47.8	105.4
4 Military towns	17.6	11.5	13.8	17.3	21.7	32.2	44.7	102.7
12 Other military places	13.3	10.4	12.3	15.3	20.9	31.4	42.5	95.2
7 Residential (with asylums)	13.5	12.0	14.4	18.3	23.9	33.9	48.1	105.3
9 " (Brighton, Bath, &c.)	15.0	10.5	12.5	16.0	21.5	31.1	43.3	99.5
3 Residential (special)	10.8	8.8	10.4	12.9	17.6	27.3	38.7	92.0
13 " (other)	12.5	8.6	10.2	13.2	18.3	27.4	39.3	96.0
133								
6 Rural groups (residential)	12.3	8.9	10.4	13.3	18.7	27.7	41.4	96.3
3 " (Wilts, &c.)	12.5	8.7	10.5	13.4	18.6	28.2	42.4	97.8
3 " (Norfolk, &c.)	12.9	8.6	9.8	12.2	17.1	25.5	37.6	94.7
6 " (Welsh)	13.0	10.0	11.2	14.0	19.6	29.1	43.2	97.9
6 " (Northern)	13.3	10.0	11.6	14.3	20.2	29.5	45.4	101.7
24								

Referring again to the "special" and "other" residential districts, the above Table shows a close correspondence in their mortality after infancy, and suggests the idea that the immigrant invalids, whose deaths swell the figures, must be almost entirely of the male sex (see Table opposite).

On the figures given it may perhaps be said that there are some notable correspondences of independent facts.

Female mortality at ages 50 and upwards was in certain groups nearly identical in 1881-1890 and in 1891-1900. If we throw out four military

* It must not be forgotten that families living in moderate affluence are likely to be much more numerous in residential districts, and even in ordinary places than in colliery villages and places like Tilbury and Barrow, hence in some measure the apparently excessive death rates in the latter class of districts.

Losses per cent. of Females, 1891-1900.	0-15.	45—	50—	55—	60—	65—	70—	75 and up- wards.
10 Large towns	20.2	11.9	15.2	19.7	25.6	38.2	52.9	104.6
22 Towns (textile manufac- tures)	20.3	11.3	15.0	20.2	28.5	42.7	62.2	115.5
7 Industrial (Middlesbro', &c.)	18.8	10.7	13.0	17.2	23.6	36.1	53.6	103.2
6 " (Wolverhampton, &c.)	20.9	11.2	14.1	18.9	25.8	38.5	55.4	107.3
12 Industrial (Southampton, &c.)	15.9	9.3	11.4	14.8	20.1	30.5	45.7	97.9
9 Colliery districts	19.9	11.9	14.6	18.8	26.0	38.5	56.3	107.7
19 Old towns	16.6	10.8	12.1	17.0	23.0	34.5	49.4	104.1
4 Military towns	17.2	10.4	12.8	16.4	22.5	33.4	46.9	99.9
12 Other military places	13.0	9.0	11.0	14.5	19.6	28.9	43.6	99.3
7 Residential (with asylums)	13.0	11.4	13.7	17.5	23.7	35.3	50.7	106.1
9 " (Brighton, Bath, &c.)	15.2	9.5	12.1	15.8	20.7	30.9	46.0	99.8
3 Residential (special)	11.7	8.3	9.8	12.3	16.6	25.0	38.4	91.9
13 " (other)	12.3	7.7	9.6	12.6	17.8	26.9	41.5	93.1
133								
6 Rural groups (residential)	11.0	7.7	9.5	12.7	18.2	28.0	42.8	94.9
3 " (Wilts, &c.)	11.1	7.8	9.7	12.8	18.8	28.8	44.5	95.1
3 " (Norfolk, &c.)	12.0	7.8	9.3	11.8	16.6	26.0	41.0	93.5
6 " (Welsh)	13.1	9.8	11.7	14.6	20.4	31.3	47.9	100.6
6 " (Northern)	13.5	8.9	10.6	14.0	20.3	30.5	47.4	101.2
24								

towns as being very like any other old towns, and the residential groups with asylums, and with special attraction for male invalids, only ten groups of non-rural character remain. Of these, five showed rates of mortality of great steadiness, viz.: the old towns, the towns engaged in textile manufactures, the colliery districts and the Wolverhampton* and Southampton groups of industrial places. Four others were almost equally constant, viz.: the large towns, the Middlesbro' industrial group, the nine residential places classed with Brighton, and the thirteen "other residential places." The twelve military places showed a material improvement, in sympathy with the rural districts, which many of them resemble. Of the rural "residues," the Welsh alone showed a serious worsening.

As respects infantile mortality, it seems to have been aggravated in the colliery districts and in many industrial places, and not much reduced anywhere except in the rural parts of the south and east of England. But since 1901 much improvement has been shown, especially in the colliery districts.

In both periods the level of mortality at ages 50 and upwards was lower in the rural parts of the eastern counties than anywhere else, but infantile mortality was lowest in the rural parts of the southern and south-western counties.

* The death rates of males in the Wolverhampton group at ages 55 and upwards were lower in the second decennium, but still ranked third in order, if one disregards places influenced by lunatic asylums.

The disparity between the rates of mortality amongst males and females respectively at ages 45-60 was least in the nine colliery districts and in the Middlesbro' group of industrial districts. This approximation of the death rates of females to those observed amongst males seems to indicate unfavourable conditions, such as those which adversely affected infant life in the same quarters.

Referring to the suggestion in Appendix A, that the transfers made of certain numbers of the female population enumerated in 1891, from age 50- to age 55-, may be less in amount than the facts would justify, it is evident that any understatement of population at that age would augment the calculated death rates at that age. The Tables of index numbers next furnished rather suggest the idea that the female death rates in 1891-1900 at that age are too high. But this appearance might equally result from a fault in the assumed "scale of mortality," slightly understating the relative female mortality at that age. I give the figures for what they may be worth, and wish to convey the idea that they must be taken with a small "grain of salt."

The index numbers are generally higher at age 50-55 than at the preceding age, and lower at age 60-65 than at 55-60; but the decrease in index numbers for males at age 65-70 has no counterpart in the case of females (see Table opposite).

A series of graphs is appended (pages xviii.-xxv.), which may be consulted with advantage; a number of similar graphs for individual places will be found on pages xxvi.-lix.

INDEX NUMBERS OF MORTALITY 1881-1890 OF MALES AND FEMALES.

	Males at age					Females at age				
	45.	50.	55.	60.	65.	45.	50.	55.	60.	65.
10 Large towns	179	184	183	172	160	152	158	166	152	150
22 Towns (textile manufactur- ing)	174	180	184	181	170	148	155	168	169	161
7 Industrial (Middlesbro', &c.)	133	138	140	137	135	133	134	140	136	132
6 Industrial (Wolverhampton, &c.)	154	162	168	163	159	138	140	148	145	146
12 Industrial (Southampton, &c.)	133	135	136	133	125	116	113	117	114	116
9 Colliery districts	145	151	153	152	146	147	147	150	148	143
19 Old towns	162	156	153	146	140	139	139	142	131	130
4 Military towns	161	159	151	141	129	135	139	140	123	124
12 Other military places	146	139	132	127	118	122	124	123	119	121
7 Residential (with asylums)	198	182	174	154	138	141	145	148	136	130
9 Residential (Brighton, Bath, &c.)	158	155	149	138	130	124	126	129	122	120
3 Residential (special)	149	139	122	114	107	104	105	104	100	105
13 " (other)	120	121	116	111	107	101	103	106	104	105
6 Rural groups (residential)	111	112	112	108	105	105	105	107	106	107
3 Rural groups (Wilts, &c.)	112	114	110	109	105	102	106	108	106	108
3 " (Norfolk, &c.)	97	96	97	98	99	101	99	98	97	98
6 Rural groups (Welsh)	120	121	119	121	118	118	113	113	111	112
6 " (Northern)	115	117	116	116	115	118	117	115	115	113

INDEX NUMBERS OF MORTALITY 1891-1900 OF MALES.

	Index numbers at age					Successive Rates. Increase or Decrease.			
	45.	50.	55.	60.	65.	45-50.	50-55.	55-60.	60-65.
10 Large towns	167	177	174	166	161	10	3	8	5
22 Towns (textile manufactur- ing)	159	177	180	180	176	18	3	..	4
7 Industrial (Middlesbro', &c.)	127	133	140	143	145	6	7	3	2
6 " (Wolverhampton, &c.)	136	150	160	155	154	14	10	5	1
12 " (Southampton, &c.)	132	138	137	130	130	6	1	7	..
9 Colliery districts	134	146	150	151	149	12	4	1	2
19 Old towns	148	151	151	147	143	3	..	4	4
4 Military towns	145	161	142	136	130	16	19	6	6
12 Other military places	135	138	138	127	122	3	..	11	5
7 Residential (with asylums)	178	179	169	154	147	1	10	15	7
9 " (Brighton, Bath, &c.)	147	154	147	140	136	7	7	7	4
3 " (special)	157	144	127	123	111	13	17	4	12
13 " (other)	110	112	110	113	110	2	2	3	3
6 Rural groups (residential)	101	103	104	107	108	2	1	3	1
3 " (Wilts, &c.)	102	105	105	109	109	3	..	4	..
3 " (Norfolk, &c.)	92	93	92	95	100	1	1	3	5
6 " (Welsh)	118	125	123	123	122	7	2	..	1
6 " (Northern)	104	112	114	115	116	8	2	1	1

INDEX NUMBERS OF MORTALITY 1891-1900 OF FEMALES.

	Index numbers at age—					Successive Rates. Increase or Decrease.			
	45.	50.	55.	60.	65.	45-50.	50-55.	55-60.	60-65.
10 Large towns	140	153	159	145	147	13	6	14	2
22 Towns (textile manufactur- ing)	133	151	163	162	164	18	12	1	2
7 Industrial (Middlesbro', &c.)	126	131	139	134	139	5	8	5	5
6 " (Wolverhampton, &c.)	132	142	152	147	148	10	10	5	1
12 " (Southampton, &c.)	109	115	119	114	117	6	4	5	3
9 Colliery districts	140	147	152	148	148	7	5	4	..
19 Old towns	127	132	137	131	133	5	5	6	2
4 Military towns	122	129	132	128	128	7	3	4	..
12 Other military places	106	111	117	111	111	5	6	6	..
7 Residential (with asylums)	134	138	141	135	136	4	3	6	1
9 " (Brighton, Bath, &c.)	112	122	127	118	119	10	5	9	1
3 " (special)	98	99	99	94	96	1	..	5	2
13 " (others)	91	97	102	101	103	6	5	1	2
6 Rural groups (residential)	91	96	102	103	108	5	6	1	5
3 " (Wilts, &c.)	92	98	103	107	111	6	5	4	4
3 " (Norfolk, &c.)	92	94	95	94	100	2	1	1	6
6 " (Welsh)	115	118	118	116	120	3	..	2	4
6 " (Northern)	105	107	113	115	117	2	6	2	2

The mortality at age 0-15 is not shown in the Tables just given, but the index numbers were as follows:—

	1881-90.		1891-00.	
	Males.	Females.	Males.	Females.
6 Industrial (Wolverhampton, &c.)	153	156	163	163
22 Textile manufacturing places	162	161	160	159
10 Large towns	156	161	153	158
9 Colliery districts	148	152	152	155
7 Industrial (Middlesbro', &c.)	138	141	145	147
4 Military towns	134	138	132	134
19 Old towns	129	130	130	130
12 Industrial (Southampton, &c.)	123	124	122	124
89				
9 Residential (Brighton, &c.)	117	117	119	119
6 Rural (North)	105	104	105	105
7 Residential (with asylums)	105	106	103	102
6 Rural (Wales, &c.)	102	102	102	102
12 Military (other places)	105	104	101	102
3 Rural (East)	102	101	97	94
13 Residential (other)	99	98	96	96
3 " (special)	86	84	92	91
3 Rural (South-West)	96	98	90	87
6 " (residential)	92	96	87	86
3 Miscellaneous	89	92	85	89
71				

In 1891-1900 the extreme cases were as under; first, amongst the 89 districts of comparatively high mortality:—

HIGHEST.	1891-00.		LOWEST.	1891-00.	
	Males.	Females.		Males.	Females.
Preston	190	194	Rugby	89	84
Potteries	181	184	Stafford	101	106
Oldham	179	178	Swindon	101	102
Manchester	178	184	Tilbury	101	110
Burnley	176	177	Wellingborough	107	109
Sheffield	175	180	Wharfedale	110	105
Blackburn	175	171	Chester	112	120
Dewsbury	175	169	Reading	113	114
Stockport	174	172	Oxford	114	106
Ashton-under-Lyne	173	177	Millom	114	113
Liverpool	172	181	Luton	114	115
Leeds	171	172	Southampton	115	120

And next, among the other 71 districts and groups:—

HIGHEST.	1891-00.		LOWEST.	1891-00.	
	Males.	Females.		Males.	Females.
Blackpool	133	128	Easthampstead	73	77
Morecambe	131	134	Godstone	74	64
Southport	125	123	Sussex	79	78
Brighton	125	128	Reigate	79	79
Scarborough	123	120	Wilts and Dorset	80	78

HIGHEST.	1891-00.		LOWEST.	1891-00.	
	Males.	Females.		Males.	Females.
Canterbury	120	127	Devon	80	91
Lancashire and Cheshire	118	124	Hants and Berks	82	82
Thanet	107	122	Brentwood	82	87
Sheerness	112	121	Isle of Wight	85	79
Llandudno	118	107	Malvern	87	77
Farnham	115	117	Watford	87	85
Dover	114	113	Herne Bay	87	85
Cheltenham	107	114	Cromer	87	87
Harrogate	111	114	Essex and Herts	87	86
Carnarvon	107	113	Gloucester and Somerset	87	86

I need hardly repeat that I attach little value to the figures for Blackpool, Morecambe, Southport, Brighton, Scarborough and other residential places. Those for Canterbury, Sheerness, Farnham and Dover are more likely to represent facts, and those for the rural parts of Lancashire and Cheshire I think may be trusted.

The following Table shows the proportion as between death rates of males and females in 1891-1900 at certain ages:—

	45—		50—		55—				
	Death rate.		Death rate.		Death rate.				
	Males.	Females.	Males.	Females.	Males.	Females.			
3 Residential (Bourne-	14.3	8.3	58	16.3	9.8	60	18.6	12.3	66
mouth, &c.)									
7 Residential (with asy-	16.2	11.4	70	20.0	13.7	69	24.7	17.5	71
lums)									
9 Residential (Brighton,	13.4	9.5	71	17.2	12.1	70	21.5	15.8	73
&c.)									
4 Military towns	13.2	10.4	79	18.0	12.8	71	20.8	16.4	79
12 Other military places	12.3	9.0	73	15.4	11.0	71	20.1	14.5	72
12 Industrial (Southamp-	12.0	9.3	77	15.5	11.4	74	20.0	14.8	74
ton, &c.)									
13 Residential (other)	10.0	7.7	77	12.6	9.6	76	16.1	12.6	78
22 Textile manufacturing	14.5	11.3	78	19.8	15.0	76	26.3	20.2	77
places									
10 Large towns	15.2	11.9	78	19.8	15.2	77	25.5	19.7	77
19 Old towns	13.5	10.8	80	16.9	13.1	78	22.1	17.0	77
6 Industrial (Wolver-	12.4	11.2	90	16.8	14.1	84	23.3	18.9	81
hampton, &c.)									
7 Industrial (Middlesbro')	11.6	10.7	92	14.9	13.0	87	20.5	17.2	84
9 Colliery districts	12.2	11.9	98	16.3	14.6	90	21.9	18.8	86
133									
3 Rural (Wilts, &c.)	9.3	7.8	84	11.8	9.7	82	15.3	12.8	84
6 " (residential)	9.2	7.7	84	11.5	9.5	83	15.2	12.7	84
6 " (Wales, &c.)	10.7	9.8	92	14.0	11.7	84	18.0	14.6	81
6 " (Northern)	9.5	8.9	94	12.5	10.6	85	16.6	14.0	84
3 " (Norfolk, &c.)	8.4	7.8	93	10.4	9.3	89	13.4	11.8	88
24									

* The figures are ranked according to their magnitude in this column.

The male death rate is comparatively high in places where male lunatics and invalids are numerous, and next in military places. It is lowest, comparatively, in the colliery districts, the Middlesbro' group of industrial districts, and the eastern and northern rural groups.

MORTALITY AT AGES 15-45.

Whilst at the higher ages, the ten groups may be classed thus:—

Highest mortality.—Textile, large towns, industrial (Wolverhampton group), and colliery districts.

Medium.—Old towns, industrial (Middlesbro' group), and so far as concerns males, the Brighton group.

Lowest.—Industrial (Southampton group), military places other than four towns, residential (thirteen "other" places), and for females, the Brighton group.

The same classification will hardly be correct at ages 15-45, being the ages of greatest movement of population.

We may divide this period into ages 15-30 and 30-45, and tabulate the results for the majority of the groups as follows:—

MALES.	1881-90.			1891-00.		
	15—	20—	25—	15—	20—	25—
22 Towns (textile manufactures)	4.3	4.9	6.1	3.6	4.0	5.0
10 Large towns	4.1	4.3	5.9	3.4	3.6	5.1
6 Industrial (Wolverhampton, &c.)	3.7	4.0	5.1	3.1	3.4	4.5
9 Colliery districts	4.5	5.0	6.0	3.6	4.2	5.1
19 Old towns	3.8	4.6	6.1	3.2	3.8	5.2
7 Industrial (Middlesbro', &c.)	3.9	4.3	5.4	3.1	3.6	4.6
9 Residential (Brighton, &c.)	3.7	4.2	5.6	3.1	3.6	5.2
12 Industrial (Southampton, &c.)	3.2	4.3	5.5	2.8	3.7	5.1
12 Military places (other)	3.0	3.9	5.6	2.2	3.1	4.6
13 Residential (other)	3.3	3.8	4.9	2.6	3.1	4.3
6 Rural groups (Welsh)	3.8	4.8	6.1	3.3	4.2	5.4
6 " (Northern)	3.3	3.9	4.8	2.8	3.2	4.1
3 " (Wilts, &c.)	3.1	3.7	4.6	2.7	3.4	4.2
6 " (residential)	3.0	3.4	4.3	2.5	2.9	3.8
3 " (Norfolk, &c.)	3.2	3.7	4.5	2.6	3.1	3.9

Here the largest towns show rates little above, and in some cases below, those in the Welsh rural area. The lowering of the death rates in the second decennium is very striking and general.

The three excepted groups stood thus:—

MALES.	1881-90.			1891-00.		
	15—	20—	25—	15—	20—	25—
7 Residential places (with asylums)	3.5	4.3	6.3	3.1	3.7	5.5
4 Military towns	3.8	4.7	6.1	3.1	4.1	5.5
3 Residential (special)	3.2	5.0	7.9	3.4	4.8	7.6

At the next higher ages the figures were:—

MALES.	1881-90.			1891-00.		
	30—	35—	40—	30—	35—	40—
22 Towns (textile manufactures)	7.5	8.9	12.2	6.3	8.0	11.2
10 Large towns	7.7	9.7	12.9	6.6	8.5	11.7
6 Industrial (Wolverhampton, &c.)	6.1	7.6	10.5	5.7	7.2	9.7
9 Colliery districts	6.9	8.0	10.4	6.1	7.4	9.6
19 Old towns	7.4	9.2	12.0	6.7	8.3	10.7
7 Industrial (Middlesbro', &c.)	6.3	7.5	9.5	5.6	7.0	9.3
9 Residential (Brighton, &c.)	7.3	8.8	11.8	7.0	8.4	10.9
12 Industrial (Southampton, &c.)	6.8	8.2	10.5	6.7	7.8	9.6
12 Military places (other)	6.3	8.0	10.8	5.3	6.8	9.6
13 Residential (other)	6.1	7.4	9.2	5.7	6.6	8.0
6 Rural groups (Welsh)	7.3	8.2	9.5	6.6	7.4	8.8
6 " (Northern)	5.8	6.8	8.6	5.2	6.1	7.5
3 " (Wilts, &c.)	6.0	7.4	8.6	5.4	6.1	7.2
6 " (residential)	5.8	7.1	8.4	5.1	5.9	7.2
3 " (Norfolk, &c.)	5.5	6.6	7.6	5.0	5.4	6.5

Here the old towns and the Brighton group stand out unfavourably, and the rural death rates are mostly at the bottom of the scale, but the Welsh figures are exceptional.

The three other groups are shown below, and attention is asked to the very high ratios in the three "special" residential districts:—

MALES.	1881-90.			1891-00.		
	30—	35—	40—	30—	35—	40—
7 Residential places (with asylums)	9.0	11.5	15.0	7.6	9.5	12.7
4 Military towns	7.7	9.5	12.5	6.6	8.1	10.6
3 Residential (special)	10.6	12.1	13.0	9.7	10.7	12.4

The figures for females will be rather different, viz.:—

FEMALES.	1881-90.			1891-00.		
	15—	20—	25—	15—	20—	25—
22 Towns (textile manufactures)	4.3	5.2	6.5	3.6	4.0	5.1
10 Large towns	3.8	3.9	5.1	3.2	3.1	4.1
6 Industrial (Wolverhampton, &c.)	3.6	4.2	5.7	3.1	3.3	4.5
9 Colliery districts	4.5	5.1	6.8	3.6	4.1	5.5
19 Old towns	3.7	4.4	5.6	3.1	3.6	4.6
7 Industrial (Middlesbro', &c.)	3.9	4.4	6.1	3.3	3.5	4.6
9 Residential (Brighton, &c.)	3.3	3.7	4.6	3.0	3.2	3.8
12 Industrial (Southampton, &c.)	3.5	4.1	5.3	2.9	3.2	4.3
12 Military places (other)	3.5	3.9	4.9	2.9	3.1	4.0
13 Residential (other)	3.3	3.7	4.5	2.8	3.2	3.8
6 Rural groups (Welsh)	4.3	5.1	6.4	3.7	4.3	5.5
6 " (Northern)	3.7	4.6	6.0	3.0	3.6	4.7
3 " (Wilts, &c.)	3.5	4.4	5.5	3.0	3.5	4.4
6 " (residential)	3.4	3.9	5.2	2.8	3.2	4.1
3 " (Norfolk, &c.)	3.8	4.5	5.8	3.0	3.5	4.6

The large towns here show comparatively low death rates, having regard to the mortality experienced at lower and higher ages, and for an obvious reason, since many healthy women resort there from the rural districts and return to their original homes if their health fails. The Brighton and "other" residential groups are influenced by similar facts.

The three other groups are shown below:—

FEMALES.	1881-90.			1891-00.		
	15—	20—	25—	15—	20—	25—
7 Residential places (with asylums)	3·6	4·3	5·5	3·1	3·6	4·8
4 Military towns	4·2	4·4	5·2	3·4	3·7	4·8
3 Residential (special)	3·3	3·9	5·1	3·1	3·8	4·6

Then we have the figures at ages 30-45:—

FEMALES.	1881-90.			1891-00.		
	30—	35—	40—	30—	35—	40—
22 Towns (textile manufactures)	7·4	8·5	10·2	6·2	7·4	9·0
10 Large towns	6·5	8·1	10·3	5·2	6·8	9·1
6 Industrial (Wolverhampton, &c.)	6·9	8·1	9·6	5·8	7·2	9·1
9 Colliery districts	8·1	9·3	10·8	6·7	8·1	9·9
19 Old towns	6·8	8·2	9·8	5·7	7·0	8·7
7 Industrial (Middlesbro', &c.)	7·1	8·2	9·4	5·8	7·0	8·5
9 Residential (Brighton, &c.)	5·7	7·0	8·5	4·6	5·7	7·4
12 Industrial (Southampton, &c.)	6·4	7·6	8·7	5·2	6·1	7·4
12 Military places (other)	6·0	7·2	8·6	4·8	5·7	7·1
13 Residential (other)	5·3	6·4	7·2	4·4	5·1	6·1
6 Rural groups (Welsh)	7·7	8·6	9·3	6·6	7·5	8·4
6 " (Northern)	6·9	7·8	8·8	5·5	6·4	7·4
3 " (Wilts, &c.)	6·4	7·1	7·8	5·1	5·6	6·4
6 " (residential)	6·0	6·8	7·6	4·8	5·4	6·3
3 " (Norfolk, &c.)	6·7	7·3	7·9	5·3	5·8	6·6

The lowering of the death rate of females in large towns and residential places, as well as the abnormally high mortality in Welsh rural districts in both decenniums, is plainly shown in the above Table.

In the three other groups the figures stood thus:—

FEMALES.	1881-90.			1891-00.		
	30—	35—	40—	30—	35—	40—
7 Residential places (with asylums)	6·9	8·6	10·1	5·8	7·0	8·9
4 Military towns	6·6	8·0	9·5	5·6	6·8	8·3
3 Residential (special)	6·3	7·5	7·9	4·9	5·7	6·8

Reviewing the ratios of deaths in the three excepted groups, it will be noticed that their mortality is much more exaggerated in the case of males than in that of females.

The reader who compares the Tables of death rates at ages 15-45 with those showing the mortality at other ages will do well to bear in mind the fact that the Census enumerations take place towards the end of March, when summer resorts are comparatively empty, and also that a considerable number of the deaths which occur in residential places must be those of visitors. I think he will conclude that, if due allowance be made for such matters and also for deaths in lunatic asylums, there is reason to believe that these places are nearly as healthy as, if not even healthier than, the rural residues.* The four military towns appear to be about as healthy as other old towns. The large towns—those engaged in textile manufactures—some of the industrial places, and the colliery districts show the worst figures, and the "other" military places the best, if we exclude the ratios for residential places as comparatively valueless. The details for individual places are shown in Appendix F.

DIAGRAMS.

If we revert to the scale and work out diagrams for some interesting places, we have evidence both of the permanency of the leading features of local mortality and the contrast which often exists between male and female conditions.

The diagrams refer to the following thirty-nine places:—

Large towns	London (average). " (interior and exterior). Manchester. Liverpool. Birmingham. Leeds.	Old towns	Lincoln. Norwich. Oxford. Cambridge. Exeter. Carlisle.
Towns (textile)	Oldham. Rochdale. Halifax. Bradford.	Military places	Plymouth. Farnham. Aldershot (North). Weymouth.
Towns (industrial)	Whitehaven. Barrow-in-Furness. Crewe. Burton-on-Trent. Southampton. Wolverhampton. Redruth. Doncaster.	Residential places	Bournemouth. Isle of Wight. Hastings. Brighton. Cheltenham. Bath.
Colliery districts	Durham group. Chesterfield group.	Rural residues	Yorkshire. Denbigh and Flint. Norfolk and Suffolk. Cornwall.

In every case the curves are given for each decennium, and the sexes are shown in separate figures, so that the usual reduction of mortality in middle life and the equally usual correspondence of the two decennial curves as respects their main features may be the more easily seen.

Some of the most striking instances of dissimilarity in the rates of mortality of the sexes and persistency in the main features constituting such divergence will be seen to be those of London, Manchester, Liverpool, Southampton, Redruth, Oxford, Plymouth, Bournemouth, Isle of Wight, Brighton and Bath.

* See the calculation in Appendix E.

MORTALITY AT AGES 0-15.

The loss sustained in the decennium before attaining the age 0-15 is not a true death rate, because many of the number who survive have been exposed to much less than ten years' risks. But it is a figure which serves very well to represent the comparative death rate, as the same qualifying fact is true of all places alike.

One would expect that the percentage of loss of *either sex* would be nearly similar (in a certain proportion shown in my scale); but, in fact, there is greater diversity than might be expected. The index numbers varied thus as between the sexes:—

	In 1881-90	In 1891-00
Equal or one point more or less	47	53
Two or three points	58	49
Four or five points	24	23
Six or seven points	15	11
Eight or more points	16	19
	160	160

There are cases where the variation was large and persistent, such as:—

Tilbury	111 m. 122 f. in 1881-90	Thanet	113 m. 120 f. in 1881-90
"	101 m. 110 ,, 1891-00	"	107 m. 122 ,, 1891-00

These places attract more boys than girls, the former to training ships, the latter to schools, and it is needless to say boys in such places are practically "selected lives." But many of the discrepancies are due to the irregular working of the doctrine of chances in small districts. For example, here are some index numbers at age 0-15:—

	1881-90	Males.	Females.
Cornwall (nine rural registration districts)	1881-90	112	119
	1891-00	103	98
Rugby	1881-90	86	95
"	1891-00	89	84
Cambridge.	1881-90	116	123
"	1891-00	116	105
Sheerness	1881-90	114	101
"	1891-00	112	121

The Registrar-General's annual death rates per 1000 for the same districts at age 0-5 compare thus:—

	1881-90.		1891-00.	
	Males.	Females.	Males.	Females.
Cornwall:—				
Stratton	37.03	41.51	42.27	38.30
Camelford	51.87	41.30	39.28	28.50
Launceston	41.76	37.60	39.00	32.43
Liskeard	46.13	42.00	42.15	33.36
Bodmin	52.12	40.73	45.39	35.79
St. Columb	46.42	39.81	42.69	31.72
St. Austell	53.46	47.84	53.85	40.88
Truro	56.42	46.55	45.25	37.10
Scilly Islands	33.06	51.40	34.29	30.11
Rugby	39.36	33.80	40.73	30.92
Cambridge	51.58	50.34	52.07	40.14
Sheppey (Sheerness)	47.90	37.03	48.80	43.37

These figures seem to prove that it is not easy to predict mortality in small districts even on an average of ten years, and, therefore, that we must be extremely careful how we draw conclusions from the mortality in any particular year, even if the district be much larger. However, the fluctuation apparently due to chance seems to affect at the age 0-15 little more than one district in ten to the extent of eight points.

Taking another method of gauging the variations of male and female mortality in single registration districts at age 0-5, we abstract the following data from the Decennial Report for 1891-1900 (excluding London and Middlesex and the Welsh division):—

Excess of Male death rate at age 0-5 per thousand.	218 Districts separately dealt with.			329 Districts, being rural residues.			No. of Dis-tricts.	The Male annual death rate was per thousand				
	Female rate			Female rate				25 and under 35.	35 and under 45.	45 and under 55.	55 and under 65.	65 and up-wards.
	under 80 per cent.	80 to 85.	over 85 per cent.	under 80 per cent.	80 to 85.	over 85 per cent.						
14 and upwards	7	11	..	13	..	..	31	..	3	7	6	15
11 and under 14	12	36	8	22	..	..	78	..	11	17	11	39
8 " " 11	18	44	28	90	24	..	204	17	83	52	30	22
5 " " 8	1	24	19	26	64	19	153	31	89	24	6	3
2 " " 5	..	..	8	..	1	54	63	35	20	7	1	..
under 2	..	..	2	..	..	16	18	15	3	..	..	..
Totals	38	115	65	151	89	89	547	98	209	107	54	79

As might be expected, the range of variation is greatest in the thinly peopled rural registration districts. The districts of low mortality show the closest approximation of the death rates of females to those of males; but whilst about half the towns separately dealt with gave a medium death rate of females, equal to from 80 to 85 per cent. of that of males, less than three-tenths of the rural districts came within that medium range.

MARRIAGES.

It is by no means an easy matter to arrive at a reliable measure of the tendency towards marriage in particular populations.

The proportion of unmarried men at ages 20-35 to total population is sufficiently variable to deprive of all value a simple ratio of marriages to population. The proportion of unmarried young women also varies very much, and so little do the statistics for the two sexes correspond, that the ratio of unmarried women to 100 unmarried men at 20-35 is sometimes as low as 60 and rises as high as 249, even within the limits of the County of London.

In England and Wales taken as a whole, the numbers of men and women, married and single, were as over at the last three Censuses:—

	1881.			1891.			1901.		
	Total.	Single.	Per cent. Single.	Total.	Single.	Per cent. Single.	Total.	Single.	Per cent. Single.
MALES.									
20-35	2,933,891	1,441,751	49.1	3,336,356	1,720,462	51.6	3,958,598	2,108,854	53.3
35-45	1,417,895	195,427	13.8	1,611,077	236,227	14.7	1,931,943	306,001	15.8
45-55	1,033,266	99,498	9.6	1,191,789	119,037	10.0	1,396,209	154,118	11.0
55-65	722,553	59,865	8.3	770,124	64,933	8.4	907,945	80,494	8.9
FEMALES.									
20-35	3,187,796	1,385,104	43.5	3,687,784	1,727,040	46.8	4,418,164	2,137,716	48.4
35-45	1,522,858	233,820	15.4	1,717,729	282,449	16.4	2,064,062	332,468	18.5
45-55	1,140,180	136,080	11.9	1,305,085	161,962	12.4	1,505,982	205,176	13.6
55-65	811,533	88,401	10.9	886,879	97,752	11.0	1,035,305	121,038	11.7

On consideration of these figures I think the proportion of men found to be in the married state at the age 45-55 is a fair measure of the general tendency to marry, though the force of that tendency may lessen or increase with the course of events, and therefore the annual numbers of marriages must also be studied.

The national figures point to a moderate falling off in the proportions of persons married. The proportion found to be unmarried seems to have increased by a little less than one-twelfth in twenty years, I mean that of those men and women who remain unmarried to the end of their lives. Marriages also take place a little later.

If we compare the numbers of marriages with those of unmarried men (including widowers) aged 20-35, the difficulty arises that certain classes of bachelors appear to be less able to marry than others. A familiar example is that of soldiers; but I think sailors, whether in the navy or merchant service, are less likely to be married than the average man, and masses of men engaged in rude labour, such as the construction of railways, canals and reservoirs, dock labourers, &c., show in many cases rather full proportions of bachelors. An enormous proportion of the patients in lunatic asylums are bachelors.

Again, it would seem that a considerable number of marriages are celebrated at a distance from the future home of the couple; owing to this circumstance, the marriage rate in unprosperous districts is sure to be overstated, whilst in the more progressive districts it is understated.

I do not think it is worth while to calculate the local proportion of marriages to the number of single women aged 20-35. Although some of the disturbing causes already referred to affect women much less than men, there are others peculiar to women, especially the very unequal proportions of female domestic servants in different places. The cotton manufacturing towns attract many more young women than young men. Although there is nothing to prevent either a domestic servant or the employé at a cotton mill from marrying, experience demonstrates that where such young persons are very numerous, the marriage rate calculated on the number of spinsters is always low.

The following Table with reference to the County of London, founded on the decennial Census returns, may be interesting:—

Boroughs.	At age 20-35.				
	Marriages to 100 Bachelors.		Spinsters to 100 Bachelors in 1901.	Marriages in 1901 to every 100.	
	1881 (a).	1891 (b).		Bachelors.	Spinsters.
Kensington	15.4	15.3	249	15.2	6.1
Paddington	12.1	13.1	165	13.9	8.5
Hampstead	14.0	10.3	247	10.4	4.2
Chelsea	14.9	13.7	167	12.5	7.5
St. Marylebone	14.9	13.0	160	13.0	8.1
*Lewisham	11.8	11.7	151	10.9	7.2
*Hackney	14.2	12.9	129	11.0	8.5
Stoke Newington	12.7	12.5	128	12.1	9.5
Wandsworth	14.6	11.9	109	12.5	11.5
Battersea	14.2	14.7	109	13.7	12.5
Camberwell	11.6	11.7	106	11.3	10.7
Fulham	11.6	11.7	106	11.3	10.7
Hammersmith	11.6	11.7	106	11.3	10.7
London City	11.6	11.7	106	11.3	10.7
Westminster City	11.6	11.7	106	11.3	10.7
Holborn	15.5	11.5	105	11.5	11.0
Finsbury	13.1	12.6	104	12.7	12.2
Lambeth	12.9	11.7	95	11.1	11.7
Islington	13.0	11.7	88	11.1	12.6
*Greenwich and Deptford	41.7	26.2	88	14.2	16.1
St. Pancras	15.9	14.3	87	15.0	17.2
†Bethnal Green	20.1	24.4	77	16.6	21.6
Shoreditch	11.3	9.0	76	13.4	17.7
†Southwark	12.9	12.8	76	14.7	19.4
Bermondsey	12.2	13.7	72	13.3	18.4
Poplar	12.6	10.4	60	9.7	16.2
Stepney					
*Woolwich					

(a) Founded on average marriages in 1880 and 1881.

(b) 1890, 1891 and 1892.

* Lewisham, Greenwich (with Deptford), Hackney and Woolwich are here represented by the registration districts of the same name, which do not exactly correspond with the Boroughs mentioned. The military in Woolwich naturally swell the numbers of bachelors. In the County of London the ratios of marriages were—

14.3 per hundred bachelors in 1881.	11.3 per hundred bachelors in 1901.
13.3 " " " " 1891.	10.7 per 100 spinsters in 1901.

the few widowed being always included with the bachelors and spinsters.

† In Bethnal Green and Southwark, and possibly in some other places, marriages were rendered more numerous through a lowering of church fees. Hence also a depression in the numbers of marriages in adjacent districts such as Bermondsey.

The proportions of single (and widowed) women aged 20-35 to 100 single (and widowed) men in groups of counties were as follows at the dates of the last three Census enumerations. The groups are arranged in the order of the proportions of women in 1901:—

	Single Women to 100 single Men, age 20-35.		
	1881.	1891.	1901.
Sussex	126.0	147.7	151.3
Gloucester and Somerset	133.9	135.9	134.0
Carmarthen, Pembroke and Cardigan	127.6	129.8	122.2
Cornwall	122.5	121.6	115.8
Bucks and Oxford	106.1	105.4	111.9

	Single Women to 100 single Men, age 20-35.		
	1881.	1891.	1901.
Devon	119.7	118.4	111.2
London, Middlesex, Herts, Essex, Kent and Surrey	108.2	110.3	109.7
Carnarvon and Anglesey	95.4	113.1	108.3
Norfolk and Suffolk	103.5	104.7	107.3
Lancashire and Cheshire	99.7	101.4	106.1
Cumberland and Westmoreland	84.1	92.6	103.9
Northampton, Bedford, Hunts and Cambridge	101.6	102.2	103.8
Hants and Berks	89.2	98.3	100.9
Leicester, Notts and Derby	91.8	98.9	99.0
Stafford, Worcester and Warwick	92.3	96.7	97.2
York	90.8	96.0	97.0
Salop and Hereford	87.7	98.0	96.9
Lincoln and Rutland	82.4	92.5	93.4
Montgomery, Radnor and Merioneth	76.4	97.5	92.9
Wilts and Dorset	96.6	97.2	91.8
Denbigh and Flint	74.3	79.9	81.9
Durham and Northumberland	66.2	72.7	76.6
Glamorgan, Monmouth and Brecon	64.3	58.8	65.4
England and Wales	98.0	101.8	102.5

It is easily perceived that the mining places show most bachelors (and therefore low proportions of spinsters), the residential counties and Cornwall (from so many Cornishmen being engaged in mining abroad) occupying the opposite position. I think no more need be said on this subject.

The proportions of marriages to 100 males (bachelors and widowers), aged 20-35, are now shown for the same groups of counties:—

	1881.	1891.	1901.
Leicester, Notts and Derby	15.1	14.7	13.8
Gloucester and Somerset	15.7	15.0	13.7
Norfolk and Suffolk	15.4	13.6	13.5
Stafford, Worcester and Warwick	14.4	14.6	13.2
Northampton, Bedford, Hunts and Cambridge	14.1	13.6	12.9
Lincoln and Rutland	12.1	13.1	12.8
Bucks and Oxford	13.0	12.1	12.6
Sussex	12.7	12.3	12.5
York	13.6	13.4	12.3
Durham and Northumberland	13.1	12.7	12.2
Lancashire and Cheshire	14.0	13.3	12.1
Carmarthen, Pembroke and Cardigan	12.4	12.4	11.8
London, Middlesex, Herts, Essex, Surrey and Kent	13.4	12.3	11.8
Devon	14.4	13.1	11.7
Cornwall	12.6	12.2	11.4
Glamorgan, Monmouth and Brecon	12.4	11.9	11.4
Cumberland and Westmoreland	10.8	10.6	11.2
Wilts and Dorset	12.3	11.7	11.0
Hants and Berks	11.6	11.0	10.9
Salop and Hereford	9.7	10.6	10.6
Carnarvon and Anglesey	10.6	10.9	10.1
Denbigh and Flint	9.7	10.8	9.9
Montgomery, Radnor and Merioneth	8.3	9.7	9.4
England and Wales	13.5	12.9	12.2

MARRIAGES FAR FROM THE FUTURE HOME.

I shall presently deal with the local figures, but will first revert to the marriages which are celebrated at a distance from the future home of the married couple. These can only be arrived at conjecturally, but I think figures worked out in the manner presently to be described are worth having.

The bulk of the women returned as being married, at ages up to 35, must have been included amongst those who were married in the preceding ten years. It is found that the numbers of marriages compared thus at three successive Censuses with the numbers returned as married:—

	Married Women counted under 35.		Marriages in ten preceding years.
In 1881	1,778,237	In 1871-80	1,960,543
In 1891	1,936,890	In 1881-90	2,047,428
In 1901	2,254,299	In 1891-1900	2,394,105

The counted numbers equalled:—

In 1881	90.7 per cent.	of the preceding 10 years' marriages
In 1891	94.6	" " "
In 1901	94.16	" " "

Where the numbers of married women counted fall below the average proportions shown above, this may be due to (a) late marriages; (b) migration after marriage; or (c) departure of wife at the time of marriage. The second and third causes are likely to affect places which differ in prosperity, and also those which show specially few or many eligible brides. The differences work out as shown on page 64, in groups of entire registration counties.

If we assume, as I think we may, that the young women who immigrate into the Durham colliery district are nearly all wives brought from a distance, a Table may be constructed, showing the probable movement of population in Durham and Northumberland, as subjoined, together with a like Table with reference to the Carmarthen, Pembroke and Cardigan group of counties. It will be seen that the net gain of wives in the colliery group does not exceed 4,481 at the age 20-25, if we disregard losses by migration at higher ages; whilst the net loss in the Carmarthen group up to age 45 was about 2000. But the following Table, which shows how much higher is the marriage rate in Durham compared with that in Carmarthen (especially among young women), will account for the reduction of apparent gains in the one case and losses in the other:—

Age at end of Decennium.	Durham.			Carmarthen.		
	Single. 1891.	Married in next 10 years.	Per cent.	Single, 1891.	Married in next 10 years.	Per cent.
20-25	88,006	31,000	35.2	16,397	3,346	20.4
25-35	119,070	80,500	67.6	25,861	11,187	43.3
35-45	26,259	11,000	41.9	9,417	3,248	34.5
45-55	8,541	1,300	15.2	3,905	623	16.0

As marriages take place so much later in the Carmarthen group, it could not be expected that a full proportion of wives married in 1891-1900 would be counted at the age 20-35.

	Apparent Gains of Wives under 35.			Apparent Losses of Wives under 35.		
	1881.	1891.	1901.	1881.	1891.	1901.
*Durham and Northumberland	4,488	6,913	10,719	..	..	..
Glamorgan, Monmouth and Brecon	463	4,798	6,558	..	..	..
Leicester, Notts and Derby	5,047	4,933	4,719	..	..	..
London, Middlesex, Surrey, &c.	16,587	13,179	18,207	..	..	..
York	2,994	5,074	3,965	..	..	..
Stafford, Warwick and Worcester	1,709	1,207	2,670	..	..	..
Lancashire and Cheshire	2,518	2,190	245	..	..	..
Sussex	1,089	..	..	..	274	1,608
Northampton, Bedford, Cambridge, &c. . . . .	..	..	..	810	1,149	2,024
Hants and Berks. . . . .	..	..	..	1,171	594	1,208
Denbigh and Flint . . . . .	..	..	..	478	765	678
Norfolk and Suffolk . . . . .	..	..	..	2,517	3,024	4,731
Lincoln and Rutland . . . . .	..	..	..	1,207	2,411	3,191
Gloucester and Somerset . . . . .	..	..	..	7,483	7,229	6,897
Wilts and Dorset . . . . .	..	..	..	1,839	2,202	2,761
Cornwall . . . . .	..	..	..	2,819	2,417	1,997
Bucks and Oxford . . . . .	..	..	..	752	903	2,450
Cumberland and Westmoreland . . . . .	..	..	..	1,207	1,724	2,611
Carnarvon and Anglesey . . . . .	..	..	..	1,023	1,169	1,380
Devon . . . . .	..	..	..	6,853	6,410	6,015
Salop and Hereford . . . . .	..	..	..	2,076	3,221	4,080
Montgomery, Merioneth, &c. . . . .	..	..	..	1,097	1,600	1,810
†Carmarthen, Pembroke, &c. . . . .	..	..	..	3,513	3,179	3,601
‡Totals	34,895	38,294	47,083	34,875	38,271	47,072

* The proportion expected to be counted should be raised, as marriages here are somewhat earlier than the average; thus the apparent excess would be reduced.
† The proportion expected to be counted should be reduced, as marriages here are rather late; thus the apparent loss would also be reduced.
‡ The differences between losses and gains arise from fractions.

DURHAM AND NORTHUMBERLAND, REGISTRATION COUNTIES—ESTIMATES.

Age at end of Decennium.	Single Females, 1891.	Losses by		Gain or Loss by Migration.	Single Females, 1901.
		Death.	Marriage.		
0-20	481,055	76,029	31,000	920	462,952
20-25	88,006	4,900	80,500	3,226	36,896
25-35	119,070	1,600	11,000	1,310	12,349
35-45	26,259	8,541	1,300	251	6,024
45-55	8,541	4,668	871	400	3,347
55-65	5,380	2,809	..	51	2,622
65 and upwards	5,380	2,809	..	51	2,622
	732,979	87,175	123,850	2,236	524,190

Age at end of Decennium.	Widows, 1891.	Losses by		* Gain by Widowhood.	Widows, 1901.
		Death.	Marriage.		
0-20 . . . . .	..	7	615	900	278
20-25 . . . . .	..	..	..	..	..
25-35	271	100	1,639	4,100	2,632
35-45	2,526	400	5,132	9,400	6,394
45-55	5,864	1,127	2,504	8,900	11,133
55-65	9,840	2,689	213	7,950	14,888
65 and upwards	30,399	19,241	..	9,261	20,419
	48,900	23,564	10,103	40,511	55,744

Age at end of Decennium.	Married Women, 1891.	Losses by		Gain by Marriage.	Gain or Loss by Migration.	Married Women, 1901.
		Death.	Widowhood.			
0-20 . . . . .	..	858	900	31,615	4,481	34,338
20-25 . . . . .	..	..	..	..	..	..
25-35	30,506	4,100	4,100	82,139	2,045	102,400
35-45	82,075	7,566	9,400	16,132	266	80,975
45-55	66,176	7,912	8,900	3,804	48	53,216
55-65	44,264	7,847	7,950	263	840	27,890
65 and upwards	32,259	13,026	9,261	..	730	10,702
	255,280	41,309	40,511	133,953†	2,108	309,521

* No estimate can be arrived at as to Losses or Gains of widows by migration: therefore the difference is wholly attributed to this column.
† True number, 133,836.

CARMARTHEN, PEMBROKE AND CARDIGAN—ESTIMATES.

Age at end of Decennium.	Single Females, 1891.	Losses by		Gain or Loss by Migration.	Single Females, 1901.
		Death.	Marriage.		
0-20	72,382	8,608	3,346	3,484	73,341
20-25	16,397				
25-35	25,861	1,120	11,187	3,540	10,014
35-45	9,417	560	3,248	1,007	4,602
45-55	3,905	370	623	283	2,629
55-65	2,453	350	..	245	1,858
65 and upwards	3,223	1,550	..	110	1,563
	133,638	12,558	18,404	8,669	94,007

Age at end of Decennium.	Widows, 1891.	Losses by		Gain by Widowhood.	Gain* or Loss by Migration.	Widows, 1901.
		Death.	Marriage.			
0-20 . . . . .	..	..	47	60	..	13
20-25 . . . . .	..	..	..	..	..	..
25-35	28	12	320	630	..	326
35-45	444	70	479	1,170	..	1,065
45-55	1,172	180	332	1,350	..	2,010
55-65	2,232	480	20	1,515	..	3,247
65 and upwards	9,547	5,820	..	2,480	..	6,207
	13,423	6,562	1,198	7,205	..	12,868

Age at end of Decennium.	Married Women, 1891.	Losses by		Gain by Marriage.	Gain or Loss by Migration.	Married Women, 1901.
		Death.	Widowhood.			
0-20 . . . . .	..	50	60	3,393	600	2,683
20-25 . . . . .	..	..	..	..	..	..
25-35	2,710	562	630	11,507	800	12,225
35-45	11,538	1,039	1,170	3,727	600	12,456
45-55	11,424	1,209	1,350	955	..	9,820
55-65	9,427	1,440	1,515	20	90	6,402
65 and upwards	9,924	3,960	2,480	..	42	3,442
	45,023	8,260	7,205	19,602†	2,132	47,023

* The migrations of widows are assumed to be exactly balanced.
 † True number, 19,646.

At the age 45-55 single women were to married, excluding widows (by the 1901 Census)—

As 11·3 to 100 in Durham group.
 As 26·8 to 100 in Carmarthen group.

The marriages contracted by Durham men in ten years must be augmented from 133,836 to about 138,200, and those entered into by Carmarthen men must be reduced from 19,646 to about 17,646. The resulting average annual ratios per 100 unmarried men and widowers aged 20-35 would be—

12·44 per cent. in Durham,
 10·50 per cent. in Carmarthen,

figures which will presently be seen to be entirely consistent with probability.

We come at last to the conclusion that the figures on page 64 represent considerably more than the facts, but are useful as indicating the general lines of an actual movement.

We cannot follow out this enquiry in the 160 towns and country groups for the year 1901, as the figures for civil condition in registration counties and large boroughs are alone available. The details given for administrative counties and for the large urban districts can hardly be used in connection with the Registrar-General's returns for registration districts. These statistics should certainly be co-ordinated. Meantime I can give the following small summary, subject to the same remarks as apply to the Table on page 64:—

	Wives aged under 35.				Per cent. on Estimated Totals.			
	1881.		1891.		1881.		1891.	
	Gain.	Loss.	Gain.	Loss.	Gain.	Loss.	Gain.	Loss.
Large towns	8,641	..	11,038	..	1·3	..	1·5	..
Colliery districts	19,314	..	28,516	..	9·4	..	11·7	..
Industrial districts	6,435	..	5,866	..	5·4	..	4·4	..
Textile districts . . . . .	..	1,669	..	2,766	..	0·9	..	1·4
Old towns . . . . .	..	5,431	..	6,909	..	6·4	..	7·5
Military places . . . . .	..	4,374	..	3,224	..	7·7	..	5·1
Residential places . . . . .	..	1,500	..	2,248	..	1·7	..	2·3
Agricultural residues . . . . .	..	21,871	..	30,764	..	5·6	..	8·0
Miscellaneous places	475	..	514	..	21·4	..	21·0	..
	34,865	34,845	45,934	45,911				

The persistency of the figures at successive Census enumerations especially points to early marriages being more numerous in some places than in others. Details are given in Appendix H, and will be the more interesting as the above Table discloses tendencies which could only be very obscurely made out from the County Table previously given.

MARRIAGES GENERALLY.

Turning now to the proportions of men aged 45-55 who are returned as remaining single, we find it necessary in the first place to exclude certain places where there are County asylums for lunatics, 31 in number. Asylums in the Metropolis and largest towns are not regarded, as these really serve almost exclusively the places where they are situate. We can then form the following Table:—

Ratios of Bachelors.	County Groups.						Totals.	Excluded.	
	Lancashire, Yorkshire and North.	Stafford and Leicester.	Wales and Border.	Metropolis and South.	West.	East.		Rural Residues of Counties.	Places with Lunatic Asylums.
TOWNS, INDUSTRIAL PLACES AND COLLIERY DISTRICTS.									
11·2 and upwards	5	..	1	1	1	..	8	..	8
9·7 to 11·1	5	3	1	1	1	1	12	..	7
	10	3	2	2	2	1	20		
8·4 to 9·6	9	3	..	2	1	3	18	..	2
7·4 to 8·3	9	10	..	..	..	..	19	..	2
Under 7·4	2	1	..	..	3	3	9	..	..
	20	14	..	2	4	6	46		
RESIDENTIAL, MILITARY AND MISCELLANEOUS DISTRICTS.									
11·2 and upwards	1	..	..	7	1	..	9	12	9
9·7 to 11·1	1	..	1	8	..	..	10	8	3
	2	..	1	15*	1	..	19		
8·4 to 9·6	2	..	..	7	5	1	15	4	..
7·4 to 8·3	..	..	..	2	1	..	3	..	..
Under 7·4	..	..	..	..	1	1	2	..	..
	2	..	..	9	7	2	20		

* Nine of these were military places.

This Table is based on the figures for 1891, as there are no materials for such a Table in the Census publications for 1901.

The reader will note the high proportions of bachelors in the rural residues of counties; also the numerous instances of high ratios in the North and South, few in comparison appearing in the other four divisions. Then there are numerous low ratios in the Midland manufacturing districts. The totals with low ratios are—

Towns and industrial places 46 out of 66.
Residential places, military, &c., 20 out of 39.

To make the nature of the Table clearer, the details of places under the title "Metropolis and South," are given below:—

Towns, Industrial places, &c.—	Ratio of Bachelors.	Residential, Military, &c.—continued.	Ratio of Bachelors.
Tilbury	12·8	Worthing	10·5
London	9·7	Windsor	10·4
Reading	8·9	Sheerness	10·4
Southampton	8·4	Dover	10·3
		Aldershot (North)	10·0
		Eastbourne	10·0
		Thanet	9·4
		Herne Bay	9·3
		Hastings	9·2
		Isle of Wight	8·8
		Tunbridge	8·8
		Clacton	8·6
		Bournemouth	8·4
		Colchester	8·3
		Staines	8·1

The proportions in the rural residues were:—

Sussex	11·9	Essex and Herts	10·5
Kent and Surrey	11·7	Bucks and Oxford	10·4
Hants and Berks	11·0		

The following Tables will illustrate the position more fully:—

	Bachelors to 100 men aged 45-55.				
	1881.	1891.	1881.	1891.	1901.
Wales and Border: Separated places	10·7	11·9	11·8	12·5	14·1
Rural residues	12·6	13·0			
Lancashire, York and North: Separated places	9·0	9·7	9·6	10·2	11·3
Rural residues	14·1	14·7			
Metropolis and South: Separated places	9·8	9·9	10·1	10·1	11·1
Rural residues	11·1	11·0			
Stafford and Leicester groups: Separated places	8·0	8·4	8·5	8·8	9·5
Rural residues	10·4	10·5			
Eastern Counties: Separated places	8·5	8·5	8·7	9·0	10·1
Rural residues	8·8	9·2			
Western Counties: Separated places	8·5	8·4	8·8	8·9	9·9
Rural residues	9·2	9·5			

	Ratio of Unmarried Men aged 45-55.	
	1881.	1891.
Towns with textile manufactures	8·0	8·3
Large towns	8·8	9·3
Old towns	10·1	9·8
Industrial places	8·9	9·3
Residential places	10·1	10·4
Colliery districts	10·0	11·0
Agricultural residues	10·9	11·2
Military places	10·5	10·3
Miscellaneous places	14·7	14·2

The ratios for particular districts are shown in Appendix H.

The following conclusions flow from these figures:—

1. That there is a greater tendency towards marriage in the unprosperous Eastern and Western Counties than in the busy Northern Counties.
2. That in the rural parts of the North and in Wales there is a comparative indisposition to marry.
3. That throughout the country there is a stronger tendency towards marriage in towns and industrial centres than in rural districts.
4. That in the Stafford and Leicester groups an inclination to marry is particularly noticeable in the towns, yet even there it is not much stronger than in the rural counties first referred to.

It remains to be said that in the southern group there are many military places, such as Canterbury, Deal, Folkestone (Shorncliffe), Farnham, Aldershot (North), Portsmouth, Chatham, Sheerness and Dover, where bachelors in 1891 exceeded 9·7 per cent., and these tend to raise the average proportion of bachelors.

It is much to be regretted that the details of civil condition in registration districts for 1901 have not been published. This regret will be intensified when we now come to apply locally the other test of the strength of the disposition to marry, viz., the proportion of marriages to each 100 bachelors and widowers aged 20–35.

MARRIAGE RATES.

We will first take the proportions in various classes of districts in 1881 and 1891, using the averages of marriages in 1880–1882 and 1890–1892 to diminish the effect of casual yearly variations:—

	Marriages per 100 Unmarried and Widowed Males, aged 20–35.	
	1881.	1891.
Towns with textile manufactures	15·4	14·0
Large towns	14·6	13·7
Old towns	14·6	13·9
Industrial places	13·5	13·6
Residential places	13·6	12·9
*Colliery districts	12·8	12·7
*Agricultural residues	11·6	11·7
Military places	10·7	9·4
Miscellaneous places	8·9	8·1

* The figures here shown are those referred to a few pages back as confirmatory of my calculations for Durham and Carmarthen.

It is quite natural that the military and miscellaneous places should rank lowest, as they contain many bachelors who would find it difficult to marry. The marriage rate in the colliery districts is only moderate, and

would not become absolutely high, if all the couples who come to reside in those districts were added. Between 1881 and 1891 the national ratio (as shown in a previous Table) fell from 13·5 to 12·9, and in the next ten years it declined to 12·2. In the first decennium (as above shown) the falling off was notable in towns (both large and old) in the textile manufacturing areas, the residential and the military places.

Using another mode of measuring the facts we have the following Table:—

	Marriages per 100 Unmarried and Widowed Males, aged 20–35.				
	1881.	1891.	1881.	1891.	1901.
Wales and Border: Separated places	12·5	12·0	11·2	11·5	11·0
Rural residue	10·1	10·9			
Lancashire, York and North: Separated places	14·1	13·5	13·6	13·1	12·2
Rural residues	10·2	10·3			
Metropolis and South: Separated places	13·4	12·3	13·1	12·2	11·8
Rural residues	11·8	11·3			
Stafford and Leicester groups: Separated places	15·2	15·1	14·6	14·6	13·4
Rural residues	12·2	12·6			
Eastern Counties: Separated places	15·2	14·4	14·1	13·5	13·1
Rural residues	13·4	12·9			
Western Counties: Separated places	15·9	14·3	14·3	13·4	12·3
Rural residues	12·7	12·4			

These figures drive home the lesson that marriage has few terrors for the agricultural labourer in the Eastern and Western counties, but is comparatively avoided by his like in Wales and the North. The Midland manufacturing counties, though on the whole hardly more progressive than the North, show a distinctly higher proportion of marriages, just as they have been seen to show lower proportions of bachelors at 45–55.

The importance of the marriage rate as a test of prosperity has, I think, been greatly exaggerated. Where the experience of the same place at different periods showed definite rises and falls in the marriage rate, I think periods of prosperity or adversity might until lately be fairly inferred. In these days, however, when the birth rate is systematically moderated by means to which I need not particularly refer, even this amount of meaning can hardly be given to the figures, whilst in my opinion the absolute marriage rate never had any value as a standard by which to estimate the comparative prosperity of different populations. There has always been a further element, whether of racial peculiarity or long usage, which has hindered any true comparison. All other things being equal, it seems to me that the Stafford, Leicester and Notts men have a stronger tendency to marry than the northern men or the Welsh. So far as concerns the rural populations, I am induced to suppose that the higher wages paid in the North have led to a more expensive standard of living, and an indisposition to marry if that standard would be imperilled, whilst in the East and West there is a continual strong tendency towards migration accompanied by a lower standard of living and less thought for the future. In Nottingham and Luton, places where female labour is highly remunerated, there are many marriages to a given number of single men; and next on the list come Bristol and Yarmouth.

If we classify the 160 places under their rank as respects the marriage rate in 1891 we get the following Table:—

Marriage rate.*	Wales and Border.	Lancashire, York and North.	Metropolis and South.	Stafford, Leices-ter, &c.	West.	East.	Rural resi-dues of Coun-ties.	Mili-tary places.	Places with Lunatic Asylum.	Totals.
TOWNS, INDUSTRIAL PLACES, &c.										
Under 10·5 . . . . .	..	3	1	..	1	..	..	..	1	6
10·5 to 11·8 . . . . .	..	4	..	..	1	..	..	..	3	8
11·9 to 13·0	2	2	1	3	..	2	..	..	6	16
13·1 to 14·2 . . . . .	..	13	2	1	2	2	..	..	3	23
14·3 to 15·3 . . . . .	..	3	..	5	1	1	..	..	5	15
15·4 and upwards . . . . .	..	5	..	8	1	2	..	..	1	17
RESIDENTIAL AND MILITARY PLACES, RURAL RESIDUES, &c.										
Under 10·5 . . . . .	..	..	1	..	..	..	4	11	4	20
10·5 to 11·8 . . . . .	..	..	5	..	..	1	9	1	6	22
11·9 to 13·0	1	1	4	..	..	..	10	1	1	18
13·1 to 14·2 . . . . .	..	2	2	..	2	1	1	..	1	9
14·3 to 15·3 . . . . .	..	1	2	..	1	..	..	..	..	4
15·4 and upwards . . . . .	..	..	..	..	2	..	..	..	..	2
	3	34	18	17	11	9	24	13	31	160

* Per 100 unmarried and widowed males aged 20-35.

The high marriage rates in towns and industrial places and the lower ones in rural and military places, as well as in most of the places where there are County asylums for lunatics, are here seen. The six residential places where really high rates were noted in both decennial periods were Bath, Cheltenham, Scarborough, Brighton, Poole and Thanet. In military places the ratio sometimes falls below 5 per cent.

Details are given in Appendix H.

EARLY MARRIAGES.

The best method of testing the numbers of early marriages in the several localities seems to me to be, a comparison of the numbers of married people of either sex under 35 years of age with the totals of married women under 65.

The standard might almost as reasonably have been the numbers of married men of similar age, who, undoubtedly, constitute the most vital portion of any population, but there are cases where, by the absence of sailors and fishermen from their homes or the presence of unusual numbers of men travelling on business, the standard in question would be perturbed.

Bachelors and spinsters cannot form part of the standard, as the masses of soldiers, sailors and domestic servants in particular localities would deprive a standard including these elements of value.

The necessary data are contained in the Census Tables for 1891,* but in those for 1901 similar facts are tabulated, *not* for the several registration districts, but only for the largest urban populations and for county groups of urban and rural districts.

The following Tables show the results of working out the figures for 1891.

First, as to the numbers of married and widowed people under 35 years of age *per cent.* upon the total of wives under 65:—

1891.	Married and Widowed under 35.		Wives.					Widows.
	Males.	Females.	Under 35.	35—	45—	55—	65 and upwards.	
Colliery districts	39·1	47·1	46·1	26·8	17·9	9·2	3·7	18·4
Large towns	36·5	45·8	44·4	28·5	18·4	8·7	3·5	25·1
Industrial places	36·2	44·0	43·1	27·5	19·1	10·4	4·7	20·8
Textile places	37·0	42·6	41·4	28·8	17·6	10·1	3·5	23·8
Military places	32·1	43·0	41·8	27·4	19·4	11·5	6·0	25·3
Old towns	33·8	41·0	40·0	28·1	20·2	11·7	5·9	24·3
Residential places	30·8	38·4	37·2	28·3	21·5	12·9	7·0	28·7
Miscellaneous	30·2	36·7	36·0	29·3	22·2	12·6	7·4	23·0
Rural residues	29·1	35·7	34·9	27·5	22·6	15·0	9·2	25·5
England and Wales	34·7	42·6	41·5	27·6	19·7	10·9	5·2	24·0

Then as to the range of ratios:—

		Married and Widowed Men under 35.					Married and Widowed Women under 35.				
		Under 28.	28 and under 31.	31 and under 34.	34 and under 37.	37 and upwards.	Under 34.	34 and under 37.	37 and under 40.	40 and under 43.	43 and upwards.
Colliery districts	9	..	..	..	3	6	..	..	..	4	5
Large towns	10	..	..	..	5	5	..	..	..	..	10
Industrial places	25	2	4	4	5	10	..	4	1	7	13
Textile places	22	..	..	3	11	8	..	..	4	12	6
Military places	16	1	4	7	3	1	..	2	5	4	5
Old towns	19	..	3	9	3	4	..	1	7	7	4
Residential places	32	4	12	12	4	..	2	11	11	6	2
Miscellaneous	3	..	2	1	..	..	..	2	1	..	..
Rural residues	24	6	16	1	1	..	4	15	4	1	..
England and Wales	160	13	41	37	35	34	6	35	33	41	45

It will be remarked that the four groups placed first showed a preponderance of ratios *above* 34 for males and *above* 40 for females. The remaining groups showed most ratios *under* those figures.

* There is but a small exception, viz., it is necessary to substitute Hayfield district for Glossop sub-district, Highworth district for Swindon sub-district.

The following places ranked *below* most of their neighbours:—

	Married and Widowed under 35.			Married and Widowed under 35.	
	Males.	Females.		Males.	Females.
Industrial—			Military—		
Whitehaven	33·1	43·1	St. Germans	26·8	39·0
Millom	33·1	41·9	Residential—		
Grimsby	33·4	46·1	Rhyl	23·3	31·8
Stafford	31·2	36·6	Malvern	26·4	32·3
Rugby	29·1	34·6	Herne Bay	27·0	36·6
Southampton	30·7	42·0	Isle of Wight	26·9	35·8
Falmouth	26·9	35·4	Rural residues—		
Redruth	30·1	41·3	Denbigh	26·1	33·2
Helston	26·9	36·7	Salop	26·1	33·3
Penzance	28·1	39·4	Montgomery	24·6	33·5
Textile—			Monmouth	26·9	35·3
Todmorden	35·0	38·0	Carnarvon	24·7	34·7
Wharfedale	33·2	40·2	Essex	28·5	33·8
Saddleworth	35·9	39·3	Cornwall	26·7	35·3
Macclesfield	32·4	38·8			
Kidderminster	32·5	39·0			

The following places, in classes below the first four, ranked *higher* than their neighbours:—

	Married and Widowed under 35.			Married and Widowed under 35.	
	Males.	Females.		Males.	Females.
Military—			Old towns—continued.		
Portsmouth	30·0	44·6	Northampton	38·8	44·2
Plymouth	31·8	43·7	Norwich	34·8	41·4
Chatham	37·0	45·5	Yarmouth	29·1	41·5
Colchester	35·1	44·8	Gloucester	34·0	39·9
Dover	32·0	41·2	Reading	35·9	42·4
Folkestone	32·9	42·5	Residential—		
Canterbury	31·2	41·5	Morecambe	36·1	43·0
Sheerness	35·4	42·3	Southport	32·2	40·3
Farnham	35·5	47·3	Southend	33·3	41·5
Old towns—			Thanet	30·4	40·1
Carlisle	31·8	40·2	Brighton	31·9	40·7
York	32·7	42·0	Eastbourne	34·5	43·2
Chester	32·3	40·0	Bournemouth	34·1	42·7
Wakefield	38·0	44·5	Poole	35·1	41·9
Derby	37·1	44·4	Rural residues—		
Coventry	39·7	45·0	Lancashire	34·9	41·4
Worcester	32·2	40·6			

The number of places where the ratio for males in this last Table is higher than 33·9 is sixteen, but the number where the ratio for females is 40 and upwards is as great as 29. Therefore there was a more

frequent tendency to early marriages amongst females than amongst males in the districts tabulated.

The Census Tables for 1901 enable us to arrive at the following figures for the *administrative divisions* of the country, which do not of course correspond with the *registration* counties and districts. The ratios are as before the proportions per cent. of young people of either sex under 35 years of age who are or have been married, to the total numbers of wives under 65 years of age.

The following were the average ratios, viz. :—

	Males.	Females.
In London (county, adding Croydon, Willesden, &c.)	35·3	45·3
In other large urban districts for which details are furnished	36·4	45·3
In smaller urban districts (which are dealt with in county totals)	34·7	42·2
In the aggregate of all urban districts	35·4	44·0
In the aggregate of all rural districts (which are also dealt with in county totals)	28·8	36·0
In England and Wales	34·0	42·3

It will be observed that the averages for England and Wales were but slightly reduced below those for 1891.

In ten large towns:—

	Males.	Females.		Males.	Females.
Sheffield	40·0	48·2	Hull	35·5	46·7
Manchester	38·7	47·7	Bristol	35·5	43·6
Birmingham	38·2	46·7	London	35·3	45·3
Leeds	37·3	45·3	Liverpool	35·3	47·4
Leicester	37·3	44·2	Nottingham	34·9	42·4

In fourteen old towns:—

	Males.	Females.		Males.	Females.
Coventry	39·6	45·8	Ipswich	33·0	41·8
York	35·7	44·3	Norwich	32·9	40·8
Derby	35·7	42·8	Chester	32·8	42·0
Northampton	35·5	42·7	Worcester	32·1	39·8
Lincoln	33·9	40·7	Exeter	30·2	37·6
Gloucester	33·7	42·0	Oxford	28·9	36·5
Reading	33·5	40·6	Great Yarmouth	28·5	38·8

In eleven seats of textile manufactures:—

	Males.	Females.		Males.	Females.
Burnley	37·2	44·1	Rochdale	35·9	41·5
Stockport	36·5	43·7	Bradford	35·2	41·4
Bolton	36·3	42·6	Bury	35·1	41·0
Preston	36·2	42·7	Halifax	34·2	39·8
Blackburn	36·0	41·7	Huddersfield	33·1	39·0
Oldham	36·0	42·6			

In fourteen towns in colliery districts:—

	Males.	Females.		Males.	Females.
Rhondda	46·8	53·2	Sunderland	36·6	47·8
Merthyr	43·5	51·2	Newport (Mon.)	36·2	47·0
Warrington	40·5	48·7	Tynemouth	36·0	47·0
St. Helens	40·1	47·8	South Shields	35·9	48·8
West Hartlepool	39·6	50·0	Stockton	35·7	46·0
Wigan	39·5	57·0	Cardiff	35·4	46·8
Newcastle-on-Tyne	37·8	47·7	Swansea	34·4	43·9

In eleven industrial places:—

	Males.		Females.	
	Males.	Females.	Males.	Females.
Barrow-in-Furness	42·8	46·8	37·7	45·3
Rotherham	40·5	47·9	35·7	43·7
Hanley	39·8	47·9	35·2	41·8
Middlesbro'	39·3	50·2	34·6	46·8
Walsall	38·5	46·2	34·4	44·9
Dudley	38·3	45·4		
West Bromwich			37·7	45·3
Wolverhampton			35·7	43·7
Burton-on-Trent			35·2	41·8
Grimsby			34·6	46·8
Southampton			34·4	44·9

In three military places:—

	Males.	Females.
Plymouth and Devonport	34·3	46·0
Canterbury	31·9	41·6
Portsmouth	30·5	45·3

And in four residential places:—

	Males.	Females.
Brighton	30·5	40·7
Hastings	29·5	37·1
Bath	28·2	36·0
Bournemouth*	26·0	36·4

Towns with less than 50,000 inhabitants are grouped under the Administrative County to which they belong. There is some difficulty in classifying these heterogenous groups. We find Rugby and Erdington in the same group with Leamington, and Eastleigh in the same group with Ventnor. The counties are therefore grouped according to the best judgment I can form of the prevailing characteristics of their smaller communities.

Three counties with textile manufactures:—

	Smaller Urban districts.		Rural districts.	
	Males.	Females.	Males.	Females.
Lancaster	36·0	42·2	31·2	37·6
York	35·2	42·0	30·0	37·8
Chester	34·7	41·8	31·2	38·3

Eight counties with colliery towns:—

	Smaller Urban districts.		Rural districts.	
	Males.	Females.	Males.	Females.
Glamorgan	41·8	49·3	36·8	44·5
Monmouth	39·8	48·3	26·7	35·6
Northumberland	38·8	48·3	30·1	39·3
Derby	38·5	45·1	36·2	43·7
Nottingham	38·4	46·0	30·5	37·3
Stafford	38·2	45·4	33·3	40·0
Durham	37·7	47·1	36·4	45·8
Brecon	35·6	44·4	31·8	39·4

* The figures for 1891 on page 74 for Christchurch registration district (re-named Bournemouth) are much higher.

Seven with either industrial places or collieries:—

	Smaller Urban districts.		Rural districts.	
	Males.	Females.	Males.	Females.
Northampton	37·8	44·1	28·1	34·0
Leicester	37·5	43·8	31·3	37·6
Cumberland	31·9	41·1	26·7	35·0
Cardiff	31·5	38·8	31·3	36·7
Warwick	33·5	40·1	30·0	36·0
Worcester	33·2	40·3	30·7	37·9
Wilts	32·4	39·4	26·4	32·7

Six influenced by the Metropolis:—

	Smaller Urban districts.		Rural districts.	
	Males.	Females.	Males.	Females.
Essex	37·6	42·3	28·2	34·4
Kent	34·0	42·5	28·6	36·4
Middlesex	34·0	42·7	32·4	39·8
Hertford	33·6	40·0	27·1	33·0
Bucks	32·6	39·6	28·2	34·3
Surrey	31·0	40·1	28·7	36·4

Twelve others where the ratio of married men in the towns is at least 30 per cent.:—

	Smaller Urban districts.		Rural districts.	
	Males.	Females.	Males.	Females.
Dorset	33·6	39·0	25·2	32·2
Radnor	33·4	41·0	27·9	36·5
Lincoln	32·4	41·1	25·6	33·2
Pembroke	32·0	38·3	24·6	31·8
Cambridge	31·2	38·0	26·2	32·6
Somerset	31·0	38·3	26·6	32·9
Flint	31·0	39·8	28·4	36·2
Norfolk	30·9	38·2	25·5	32·6
Hants	30·8	41·3	27·1	34·3
Suffolk	30·7	38·6	25·4	32·4
Sussex	30·4	39·0	26·4	33·8
*Denbigh	30·1	39·4	32·9	39·2

* In the rural parts of Denbigh there are many colliers.

And the remaining sixteen where the ratio of married men in the smaller urban districts is even lower:—

	Smaller Urban districts		Rural districts.	
	Males.	Females.	Males.	Females.
Gloucester	29.8	37.0	27.7	34.7
Anglesey	29.8	38.4	24.5	33.1
Salop	29.7	37.3	25.0	32.0
Huntingdon	29.6	37.6	28.1	34.4
Carnarvon	29.4	37.8	27.1	35.7
Westmoreland	29.4	36.6	24.4	33.2
Berks	28.8	36.8	26.0	33.0
Oxford	27.7	35.7	23.3	30.0
Cornwall	27.4	37.4	25.7	35.0
Devon	27.3	35.5	25.4	31.9
Hereford	27.2	36.8	22.0	30.1
Bedford	26.9	39.3	27.6	32.4
Merioneth	25.6	34.7	24.2	33.4
Montgomery	25.5	35.7	21.8	31.7
Cardigan	22.6	34.0	19.1	28.0
Rutland . . . . .	..	..	24.7	31.9

The extreme figures for urban districts are :—

	Males.	Females.
Highest—Rhondda	46.8	53.2
Lowest—Cardigan group	22.6	34.0

and for rural districts :—

	Males.	Females.
Highest—Durham	36.4	45.8
„ Glamorgan	36.8	44.5
Lowest—Cardigan	19.1	28.0

The following considerations may be worthy of recollection :—

1. Where, as in Durham and Northumberland, high wages and early marriages are the rule, the general tone of society also affects the non-mining places such as Hartlepool, Stockton and Darlington. Again, Walsall in South Staffordshire, though chiefly dependent on the saddlery trade, must be influenced by the neighbouring towns.
2. In both Yorkshire and Lancashire there are many small colliery towns; probably, if these could be separately shown, the remaining small towns, largely engaged in textile manufactures, would show lower ratios of young married people.
3. In counties adjacent to London the proportions of the married are evidently raised, though if these could be sub-divided, the parts more remote from the Metropolis might show lower figures.

On the whole, it seems that the tendency towards early marriages is strongest in the colliery districts, next in industrial places, seats of textile industries and large towns, lower in old towns and military places, and lowest of all in residential and rural districts.

WIVES AGED 55 AND UPWARDS, AND WIDOWS.

It is obvious that the proportions of these will be lowest in places where the mortality is high and the populations are rapidly increasing; highest where the reverse conditions prevail. But there may be some advantage in extracting the proportions so as to realise how far the attractions of residential places influence migrations, as well as the disadvantages of such places as Barrow. Widows and elderly wives may also be specially numerous where many men (such as fishermen, sailors and miners) may be absent on the Census day whilst supporting families by their earnings.

In the following places (omitting the rural residues, where the figures are generally high) the proportions were greatest in 1891 :—

	Widows aged 35 and upwards.	Wives aged			Widows aged 35 and upwards.	Wives aged	
		55-65.	65 and upwards.			55-65.	65 and upwards.
Residential—				Towns (old)—			
Cheltenham	36.9	14.1	8.0	Exeter	31.1	14.0	8.1
Bath	35.2	13.1	7.0	Cambridge	30.0	10.9	5.5
Rhyl	34.1	16.7	7.7	Lynn	29.5	11.8	7.8
Weston-super-Mare	31.4	14.9	10.4	Carlisle	28.2	11.3	5.1
Malvern	31.3	17.2	9.6	Ipswich	25.0	13.7	7.9
Leamington	31.1	14.6	8.4	Industrial—			
Brighton	30.3	11.5	5.8	Redruth	39.2	12.3	5.9
Scarborough	30.2	13.2	7.6	Penzance	37.0	13.9	8.1
Thanet	29.8	11.7	6.7	Helston	36.8	14.7	8.7
Harrogate	29.7	13.6	7.1	Falmouth	32.3	15.2	8.9
Worthing	29.7	13.3	7.5	Military—			
Torquay	29.5	14.5	9.2	St. Germans	30.7	14.7	9.0
Herne Bay	25.7	14.3	8.5	Canterbury	30.4	11.9	6.5
Isle of Wight	24.7	14.5	7.4	Weymouth	28.0	13.5	8.0

The following are places where the ratios (to 100 wives aged not more than 65) were lowest in 1891 :—

	Widows aged 35 and upwards.	Wives aged			Widows aged 35 and upwards.	Wives aged	
		55-65.	65 and upwards.			55-65.	65 and upwards.
Industrial—				Highworth			
Barrow	13.4	7.0	2.2	(Swindon)	14.1	9.4	4.1
Middlesbro'	15.1	8.1	3.1	Crewe	17.5	11.4	5.6
Rotherham	15.3	8.8	3.8	Burton-on-Trent	17.7	10.0	4.4
Walsall	16.4	9.8	3.9	Grimsby	17.7	10.4	5.3
Whitehaven	23.8	9.6	3.6	Kettering	15.0	11.0	5.3
Potteries	20.1	8.9	3.4	Wellingborough	16.4	11.4	5.4
Tilbury	12.7	8.5	4.9				

	Widows aged 35 and upwards.			Wives aged 55-65. 65 and upwards.				Widows aged 35 and upwards.			Wives aged 55-65. 65 and upwards.		
	35 and upwards.	55-65.	65 and upwards.	35 and upwards.	55-65.	65 and upwards.		35 and upwards.	55-65.	65 and upwards.	35 and upwards.	55-65.	65 and upwards.
Colliery districts—							Textile manufac-						
Durham	18.0	8.9	3.4				turing—						
Glamorgan	18.0	8.9	3.6				Burnley	18.1	8.0	2.5			
Chesterfield	14.8	10.3	4.7				Blackburn	20.8	8.7	2.9			
Wigan	17.6	8.6	3.1				Bolton	21.3	8.8	2.8			
Barnsley	15.5	9.3	3.7				Oldham	21.5	9.1	2.6			
Cannock	14.3	12.0	5.6				Haslingdon	20.7	9.9	3.3			
Ashby-de-la-Zouche	16.7	12.7	6.3				Bradford	23.4	10.5	3.4			
							Ash-ton-under-Lyne	23.6	9.9	3.4			
							Stockport	24.4	9.8	3.5			
Old towns—							Large towns—						
Wakefield	16.3	9.2	3.7				Liverpool	26.0	7.7	2.6			
Northampton	17.0	10.4	4.6				Manchester	24.5	8.0	2.6			
Derby	17.8	9.2	3.5				Sheffield	19.7	8.4	2.8			
							Leeds	21.0	8.7	2.9			
Military—							London	24.3	8.7	3.6			
Farnham	17.3	9.7	4.2				Hull	20.6	9.0	4.0			
Sheerness	17.4	11.6	5.8				Birmingham	20.8	9.6	3.8			

The average ratios in groups of districts were in 1891 :—

	Widows aged 35 and upwards.	Wives aged	
		55-65.	65 and upwards.
Colliery districts	17.4	9.2	3.7
Large towns	23.7	8.7	3.5
Industrial* places	19.9	10.4	4.7
Textile†	22.6	10.1	3.5
Military	24.1	11.5	6.0
Old towns	23.3	11.7	5.9
Residential places	27.5	12.9	7.0
Miscellaneous	22.3	12.6	7.4
Rural residues	24.7	15.0	9.2
England and Wales	22.9	10.9	5.2

* Including Highworth instead of Swindon.

† " Mayfield " Glossop.

BIRTHS.

As the proportion of women in the married state at ages under 45 varies considerably, it cannot be safe to compare births with the total female population, or even with the numbers of women aged 20-45. It is, perhaps, an open question whether births should be compared with the numbers of married women under 35 or under 45 years of age. By including married women aged 35-45 we lower the comparative birth rates in rural counties and add to them in the mining and manufacturing districts, as the following Table will show :—

1901. Registration Counties.	Married Women under 35 being 100, those aged		1901. Registration Counties.	Married Women under 35 being 100, those aged	
	35-45	45 and upwards		35-45	45 and upwards
	are in proportion.			are in proportion.	
Durham and Northumberland	59.2	67.1	Gloucester and Somerset	76.8	111.9
Glamorgan, Monmouth and Brecon	59.3	65.4	Cumberland and Westmoreland	77.6	105.1
Stafford, Worcester and Warwick	64.6	79.4	Sussex	79.3	114.1
Leicester, Notts and Derby	66.4	82.7	Devon	79.3	115.1
Lancashire and Cheshire	66.8	80.1	Norfolk and Suffolk	81.3	130.8
Metropolitan counties	67.4	73.1	Carnarvon and Anglesey	82.1	120.3
Denbigh and Flint	67.9	77.0	Wilts and Dorset	82.3	127.6
Lincoln and Rutland	72.0	106.5	Cornwall	82.4	127.7
Northampton, Bedford, &c.	74.2	115.4	Carmarthen, Pembroke, &c.	83.6	132.0
Hants and Berks	74.9	114.8	Montgomery, &c.	84.0	135.6
	75.7	103.8	Bucks and Oxford	84.6	133.1
			Salop and Hereford	86.1	142.1

The best course appears to me to be that of comparing births with the numbers of married women under 45 years of age. This is a medium between using the figure of married women under 35 and that of married women at all ages. Incidentally it may be noted that the proportion of women (married and otherwise) aged 20-35 to female population seems to be steadily rising as the number of children falls off, but the proportion of those who are married tends to decrease :—

	Women, 20-35. Per cent. on Female population.			Married Women under 35 to 100 Women aged 20-35.		
	1881.	1891.	1901.	1881.	1891.	1901.
London, Middlesex, &c.	25.95	26.44	27.86	52.9	50.2	49.0
Lancashire and Cheshire	25.38	25.75	27.60	56.5	52.9	50.3
York	24.14	24.92	26.71	59.5	55.4	53.4
Sussex	24.09	25.02	26.31	47.8	41.4	40.6
Stafford, Worcester and Warwick	23.12	23.71	25.95	59.7	56.3	54.8
Glamorgan, Monmouth and Brecon	22.82	24.58	25.81	63.6	63.2	61.5
Durham and Northumberland	23.08	23.91	25.80	65.6	62.2	59.6
Leicester, Notts and Derby	23.43	23.98	25.72	61.6	57.2	55.3
Hants and Berks	22.90	24.09	25.48	53.9	49.1	48.0
Carnarvon and Anglesey	22.41	23.26	25.35	49.9	42.8	42.9
Devon	22.57	24.23	24.96	48.4	46.0	46.0
Gloucester and Somerset	22.48	23.35	24.75	50.1	47.2	45.7
Cumberland and Westmoreland	22.88	23.11	24.18	52.7	49.2	45.8
Denbigh and Flint	20.64	21.82	23.90	54.9	50.2	50.7
Carmarthen, Pembroke, &c.	22.08	22.73	23.65	43.8	40.9	40.9
Lincoln and Rutland	21.07	21.61	23.60	58.0	53.5	52.8
Northampton, Bedford, &c.	21.19	22.05	23.56	56.6	53.3	51.9
Montgomery, Merioneth, &c.	20.86	21.48	23.50	50.3	43.2	43.2
Cornwall	21.56	23.24	23.32	45.8	45.7	45.6
Wilts and Dorset	20.74	21.83	22.90	53.3	50.3	49.1
Bucks and Oxford	20.84	21.75	22.69	53.3	49.8	47.0
Salop and Hereford	20.18	21.33	22.58	49.5	45.3	44.5
Norfolk and Suffolk	20.71	21.24	22.05	56.8	53.6	50.9
England and Wales	23.91	24.67	26.30	55.8	52.5	51.0

It has been seen that the tendency towards marriage is not specially strong in the mining counties, yet, in consequence of the relative paucity of female population, the proportion of young women in the married state is very much above the average in those counties. Generally, it will be seen that the increased proportion of young women aged 20-35 is universally progressive, and the diminished proportion in the married state is almost equally regular, with the exception that in the last decennium little or no change occurred in Devon, Cornwall and four Welsh groups.

We get rid at once of all reference to such fluctuations when we compare directly figures which are more truly capable of comparison, viz., the number of births with that of married women under 45, though this method disregards the illegitimate births (which are nowhere numerous enough to demand special notice, and which tend to diminish in number), and also the decreased fertility of women after 35 years of age.

In 1901 the proportion of married women under 45 to the total female population was as stated below:—

	Married Women under 45 per cent. on total Female population in 1901.		Married Women under 45 per cent. on total Female population in 1901.
Glamorgan, Monmouth and Brecon	25·29	Devon	20·57
Durham and Northumberland	24·48	Wilts and Dorset	20·52
York	23·80	Norfolk and Suffolk	20·34
Leicester, Notts and Derby	23·68	Gloucester and Somerset	20·00
Stafford, Worcester and Warwick	23·41	Carnarvon and Anglesey	19·80
Lancashire and Cheshire	23·26	Bucks and Oxford	19·70
London, Middlesex, &c.	22·93	Cumberland and Westmoreland	19·68
Lincoln and Rutland	21·72	Cornwall	19·40
Hants and Berks	21·49	Sussex	19·14
Northampton, Bedford, &c.	21·38	Salop and Hereford	18·70
Denbigh and Flint	20·86	Montgomery, Merioneth, &c.	18·68
		Carmarthen, Pembroke, &c.	17·77
		England and Wales	22·64

It will be seen that where women are relatively few in number the proportion of married women is high. The counties at the other end of the scale include those which like Sussex contain a very large female population, and some others where the tendency towards marriage is weaker than usual.

The gradual increase of the age at marriage causes the proportion of married women at age 35-45 to those who are younger to mount up, the national per centage advancing from—

65·5 in 1881
to 67·5 in 1891
and 68·7 in 1901;

but the increase is not regular, as shown below:—

	Married Women, aged 35-45, to each 100 under 35.			Increase or Decrease in 20 years.		Married Women, aged 35-45, to each 100 under 35.			Increase or Decrease in 20 years.
	1881.	1891.	1901.			1881.	1891.	1901.	
Cumberland, &c.	66·6	72·4	77·6	11·0	London, &c.	63·6	66·4	67·9	4·3
Norfolk, &c.	70·9	74·0	81·3	10·4	Montgomery, &c.	79·9	86·8	84·0	4·1
Sussex	70·4	78·1	79·3	8·9	York	63·4	66·0	66·8	3·4
Bucks and Oxford	77·0	78·0	84·6	7·6	Cornwall	80·0	73·9	82·4	2·4
Wilts and Dorset	75·5	77·9	82·3	6·8	Lincoln, &c.	72·0	75·8	74·2	2·2
Carmarthen, &c.	77·2	79·9	83·6	6·4	Northampton, &c.	72·8	73·9	74·9	2·1
Carnarvon, &c.	75·8	81·3	82·1	6·3	Durham, &c.	58·9	58·8	59·2	0·3
Devon	73·1	72·0	79·3	6·2	Stafford, &c.	64·6	66·0	64·6	..
Leicester, Notts, &c.	60·4	61·9	66·4	6·0	Salop and Hereford	86·9	84·2	86·1	0·8
Hants and Berks	70·7	73·0	75·7	5·0	Glamorgan, &c.	61·1	57·5	59·3	1·8
Lancashire, &c.	63·0	65·8	67·4	4·4	Denbigh, &c.	78·7	76·8	72·0	6·7
Gloucester, &c.	72·4	74·0	76·8	4·4	England and Wales	65·5	67·5	68·7	3·2

There seems to be here a clear indication that the age at marriage has not increased in Durham, South Wales, the Stafford group and Denbigh. In Salop it is steadily high, but not increasing. The increase rather affects certain of the groups least engaged in industrial pursuits, the first eight being of that character, except Cumberland, which merely comes into line with other unprogressive counties. Other groups, ranking low in 1881, have not added to their figures sufficiently to rank high in 1901; whilst Montgomery and Cornwall, beginning with high ratios, had the less room for any large increase.

BIRTH RATES.

Turning now to the proportion of births to the numbers of married women under 45 years of age, we begin with the following Table showing the ratios in groups of registration counties for 1881, 1891 and 1901, in each case taking the average of three years' births, the mid-most year being that of the Census:—

	Births per 10,000 Married Women under 45.				Births per 10,000 Married Women under 45.		
	1881.	1891.	1901.		1881.	1891.	1901.
Durham and Northumberland	3,202	3,087	2,876	Lincoln and Rutland	3,021	2,704	2,412
Glamorgan, Monmouth, &c.	3,140	3,125	2,840	Bucks and Oxford	3,105	2,841	2,404
Denbigh and Flint	3,061	2,992	2,792	York	2,919	2,656	2,390
Carmarthen, &c.	3,358	3,132	2,743	London and Metropolitan Counties	2,906	2,627	2,347
Montgomery, &c.	3,185	2,902	2,706	Northampton, &c.	3,002	2,737	2,327
Salop and Hereford	3,089	2,951	2,667	Wilts and Dorset	3,048	2,700	2,321
Cumberland, &c.	3,341	3,065	2,651	Gloucester and Somerset	3,005	2,735	2,314
Stafford, Warwick, &c.	3,137	2,935	2,645	Cornwall	3,084	2,774	2,310
Leicester, Notts and Derby	3,084	2,793	2,511	Hants and Berks	2,916	2,579	2,228
Norfolk and Suffolk	3,064	2,792	2,469	Devon	2,982	2,631	2,170
Lancashire and Cheshire	2,990	2,761	2,423	Sussex	2,942	2,492	2,145
Carnarvon and Anglesey	2,900	2,567	2,419	England and Wales	3,006	2,756	2,451

It is satisfactory to think that some of the disturbing causes which impair the value of the statistics of deaths and marriages do not affect these figures. Military camps, lunatic asylums, migrations and marriage rates have no bearing on the proportions now shown. On the other hand, the same social influences which modify the numbers of marriages in certain districts may assimilate the action of populations which are in close communication with those districts; we do not find it strange if similar ratios appear in Leicester, Northampton and Luton, and we do consider it wonderful that Preston and Bolton differ so much from Burnley and Bury.

Other sets of ratios (for periods of ten years) are shown in the following Table, the number of married women used as a divisor being the mean number at two Census dates:—

	Births per 10,000 Married Women under 45.			Births per 10,000 Married Women under 45.	
	1881-90.	1891-00.		1881-90.	1891-00.
Carmarthen, Pembroke, &c.	3,233	2,974	Lancashire and Cheshire.	2,863	2,606
Glamorgan, Monmouth, &c.	3,025	2,956	Lincoln and Rutland . . .	2,918	2,575
Denbigh and Flint	2,923	2,946	Cornwall	2,965	2,573
Durham and Northumberland.	3,095	2,893	Gloucester and Somerset.	2,872	2,567
Montgomery, &c.	3,090	2,865	Northampton, &c.	2,900	2,561
Salop and Hereford	3,059	2,863	Wilts and Dorset	2,914	2,545
Cumberland and Westmoreland	3,232	2,858	Carnarvon and Anglesey	2,741	2,522
Stafford, Warwick and Worcester	2,997	2,777	York	2,746	2,516
Norfolk and Suffolk	3,000	2,670	London and Metropolitan Counties	2,773	2,462
Leicester, Notts and Derby	2,950	2,654	Devon	2,828	2,421
Bucks and Oxford	3,011	2,635	Hants and Berks	2,793	2,403
			Sussex	2,731	2,342

These figures simply support the idea that since 1881 there has been a progressive decline in the birth rate, affecting textile manufacturing places and residential towns in a special degree, but extending to every part of the kingdom.

The absolute numbers of births decreased in many places, as shown opposite; as between 1881-1890 and 1891-1900.

The figures of births in the two decennial periods are shown in Appendix C.

The following little Table summarises the facts for the 160 districts as in 1881 and 1891 (averages of three years), viz.:—

	Births per 10,000 Married Women under 45.		Decline in 10 years.		Births per 10,000 Married Women under 45.		Decline in 10 years.
	1881.	1891.			1881.	1891.	
Residential places	2,932	2,553	379	Miscellaneous places.	2,884	2,623	261
Textile manufacturing places	2,819	2,477	342	Large towns	2,898	2,657	241
Old towns	2,989	2,672	317	Industrial places	3,196	2,988	208
Military places	2,883	2,574	309	Colliery districts	3,244	3,156	88
Rural residues of Counties	3,117	2,838	279	England and Wales	3,006	2,756	250

	Increased Births (10 years).				Decreased Births (10 years).			
	Male.		Female.		Male.		Female.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
9 Colliery districts	111,075	17.8	107,704	18.0				
7 Industrial (Middlesbro', &c.)	10,703	11.4	11,127	12.4				
10 Large towns	103,020	6.5	99,972	6.5				
6 Industrial (Wolverhampton, &c.)	3,157	2.1	3,400	2.4				
12 Industrial (Southampton, &c.)	3,736	4.0	3,456	3.9				
4 Military towns	3,178	3.9	3,364	4.3				
12 " other places	118	.2	1,064	2.2				
7 Residential (with asylums)	949	2.3	1,782	4.5				
9 " (Brighton, &c.)	4,706	5.8	5,230	6.7				
3 " (Bournemouth, &c.)	760	3.0	822	4.4				
13 Residential (other)	994	1.3	997	1.4				
3 Miscellaneous	31	.4	..	..	..	..	81	1.2
19 Old towns . . . . .	..	..	240	.1	849	.4	..	..
22 Textile manufacturing places . . . . .	..	..	..	..	16,389	3.8	15,792	3.8
6 Rural residues (residential) . . . . .	..	..	..	..	32,552	11.4	31,750	11.5
3 " " (Wilts, &c.) . . . . .	..	..	..	..	13,315	12.8	12,459	12.5
3 " " (Norfolk, &c.) . . . . .	..	..	..	..	22,125	11.5	21,724	11.8
6 " " (Welsh) . . . . .	..	..	..	..	12,441	7.7	11,181	7.3
6 " " (Northern) . . . . .	..	..	..	..	13,614	5.5	12,407	5.2
	242,427	..	239,167	..	111,285	..	105,394	..
Deduct decreases	111,285	..	105,394	..				
Net increase of Births	131,142	2.9	133,773	3.1				

The colliery districts stood highest in 1881, and the ratio of births there has given way to a smaller extent by far than in other places. It is specially noticeable that rural places have been very widely affected.

The details for 1881 are given in Appendix H and will be found interesting. I feel so strongly the need of carrying on the investigation to the date of the last Census that I have superadded in the same Appendix a calculation for 1901 based partly on estimates. The numbers in 1901 of married women aged 15-45 are known for registration counties and for the larger municipalities. I have striven so to allocate the numbers in the residues of counties as to do no violence to probability, and for this purpose have had to investigate the local proportions between the numbers of women aged 20-45, which are shown in the 1901 Census Tables, and the numbers of *married* women under 45, which are not so shown, save for counties and the largest boroughs.

The following County Table shows that there are considerable local variations, and that there has been a general decline in the proportions of those aged 20-45 who are in the married state:—

—	Women, aged 20-45, per centage Married.		De- cline.	—	Women, aged 20-45, per centage Married.		De- cline.
	1891.	1901.			1891.	1901.	
Glamorgan, Monmouth, &c.	69.4	68.2	1.2	Bucks and Oxford . .	58.8	56.6	2.2
Durham, &c.	68.4	66.1	2.3	Metropolitan Counties .	57.3	56.4	.9
Leicester, Notts and Derby	64.7	63.0	1.7	Hants and Berks . . .	57.3	56.3	1.0
Stafford, Worcester and Warwick	63.8	62.2	1.6	Devon	54.1	54.8	.7*
Lincoln, &c.	62.5	61.5	1.0	Cumberland, &c. . . .	57.4	54.7	2.7
York	62.7	60.9	1.8	Salop and Hereford . .	55.4	54.5	.9
Northampton, &c. . . .	61.7	60.4	1.3	Gloucester and Somerset	55.7	54.3	1.4
Norfolk and Suffolk . .	61.8	60.0	1.8	Cornwall	53.8	54.1	.3*
Denbigh and Flint . . .	59.2	58.9	.3	Montgomery, &c. . . .	53.9	53.2	.7
Wilts and Dorset	59.4	58.4	1.0	Carnarvon, &c.	52.3	52.1	.2
Lancashire and Cheshire	60.0	57.8	2.2	Carmarthen, &c.	50.1	50.3	.2*
				Sussex	49.9	48.7	1.2
				England and Wales. . .	60.0	58.7	1.3

* Increase.

The reasons for the local variations in the ratios of persons in the married state have already been touched upon. In the great colliery districts there is a scarcity of women, so that wives have to some extent to be brought from exterior districts. In the Midland Counties the disposition to marry seems stronger than elsewhere. On the other hand, the tendency towards marriage rather weakens in the north and in the greater portion of the area of Wales. In Sussex and other counties the unusually great numbers of single women employed tend to lower the ratio. All these are more or less permanent influences, and if we assume that they prevailed in 1901 nearly to the same extent as in 1891, we arrive, I think, at tolerably safe estimates. The following short Table will show how these estimates work out in the aggregate, the details being shown in Appendix H:—

—	Women, aged 20-45, per centage Married.		Decline.
	1891.	1901.	
Colliery districts	70.5	68.6	1.9
Industrial districts	67.4	65.8	1.6
Military districts	60.3	60.3	. .
Old towns	59.6	58.2	1.4
Large towns	59.0	57.6	1.4
Rural residues of Counties . .	58.2	56.8	1.4
Textile manufacturing places . .	58.4	56.3	2.1
Miscellaneous	55.1	53.1	2.0
Residential places	48.8	48.3	.5

If we exclude the two highest and two lowest lines, the range of ratios is not very great, little more than one-fifth of the range shown in the County Table. The colliery and industrial districts are those in which the fertility of marriages has been seen to be greatest, the residential and textile manufacturing places are those in which fertility is reduced to the lowest point. The inference seems to be that where people marry most freely they take the least care to reduce fertility below what is natural.

Let us now see what ratios of births can be had for 1901 by the aid of our estimates. They may most usefully be summarised in another small Table:—

—	Births per 10,000 Married Women under 45.		Decline in 10 years.
	1891.	1901.	
Colliery districts	3,156	2,880	276
Industrial places	2,938	2,683	305
Rural residues of Counties . .	2,838	2,473	365
Old towns	2,672	2,358	314
Large towns	2,657	2,407	250
Miscellaneous	2,623	2,202	421
Military places	2,574	2,236	338
Residential places	2,553	2,188	365
Textile manufacturing places . .	2,477	2,059	418
England and Wales	2,756	2,451	305

The reduction in general is rather greater than in the preceding decennium. Residential places and old towns, where the loss in the preceding decennium was great, show slightly diminished losses, but colliery districts considerably greater ones, not large enough, however, to interfere with the fact that fertility in those districts still touches the highest point.

We can now usefully descend to particulars, and in doing so I may, perhaps, be allowed to express the idea that natural fertility would be approximately represented by the figure 32.00 per cent. or 3,200 births per 10,000 married women aged less than 45. This would imply that some non-natural restriction existed even in 1881, especially in Rochdale

and Todmorden. Of the 85 towns and industrial places the following twenty-one showed the suggested degree of fertility:—

	Births per 10,000 Married Women under 45.				Births per 10,000 Married Women under 45.		
	1881.	1891.	1901.		1881.	1891.	1901.
Cannock	3,274	3,287	3,044	Chesterfield	3,318	3,113	2,820
Ashby-de-la-Zouch	3,214	3,206	3,002	colliery district)			
Barnsley	3,266	3,241	2,966	Leek	3,213	2,937	2,818
Wolverhampton	3,322	3,226	2,942	Cockermouth	3,475	3,190	2,700
Wigan	3,481	3,356	2,936	Millom	3,473	3,137	2,669
Whitehaven	3,388	3,230	2,922	Tilbury	3,292	3,041	2,606
Rotherham	3,210	3,099	2,892	Preston*	3,218	3,006	2,516
Walsall	3,298	3,224	2,885	Burton-on-Trent	3,324	2,948	2,454
Durham colliery) district	3,202	3,097	2,880	Kettering	3,210	3,031	2,350
Potteries	3,255	3,123	2,827	Penzance	3,253	2,790	2,280
Middlesbro'	3,203	2,951	2,826	Swindon	3,205	2,602	2,090

* This place shows singularly high ratios of births compared with other cotton manufacturing towns within a short distance.

Amongst the 51 residential, military and other districts only three, viz., Southend, Morecambe and Farnham, reached the suggested standard in 1881, but four of the county residues (out of 24) exceeded it, and others were not much below it.

Of the twenty-one towns and industrial areas just referred to, only five, viz., Tilbury, Preston, Swindon, Kettering and Penzance, were free from the influence of colliery or iron working populations either within them or in close proximity. The following six districts, where again colliery or iron working populations are present or adjacent, showed relatively high ratios in 1901:—

	Births per 10,000 Married Women under 45.		
	1881.	1891.	1901.
Wrexham	3,144	3,176	2,976
Glamorgan colliery district	3,143	3,135	2,842
Nuneaton	3,172	2,947	2,829
Doncaster	3,040	2,817	2,794
Barrow-in-Furness	3,149	2,885	2,715
Wakefield	3,097	2,671	2,638

These with the 21 before tabulated make 27 places which include 21 out of the 22 places of the urban and industrial classes, where the ratio in 1901 was as high as 2,638, the only other one being Liverpool, itself in close proximity to the Lancashire coalfield, and noticeable as showing so low a ratio as 2,895 per 10,000 in 1881, to my mind evidencing artificial repression of births on a considerable scale prior to that year.

In 1901 no single residential or military district showed so high a ratio of births as 2,638, the maximum figure being 2,563 for Harrogate; but the following rural residues reached ratios ranging from 2,667 to 2,818, viz.:—

	Births per 10,000 Married Women under 45.		
	1881.	1891.	1901.
Durham and Northumberland	3,203	2,968	2,818
Monmouth and Brecon	3,107	2,979	2,789
Carmarthen, &c.	3,358	3,132	2,743
Denbigh and Flint	3,003	2,904	2,713
Montgomery, &c.	3,185	2,902	2,706
Salop and Hereford	3,089	2,951	2,667

Each of these county residues is influenced by the existence of colliery populations within or near their limits, with the single exception of the Montgomery group, which may, I think, be regarded as rather remote and old-fashioned.

Turning to the districts where the ratio in 1881 was 2,920 or under, we first have thirteen towns (including large towns and old towns), viz.:—

	Births per 10,000 Married Women under 45.				Births per 10,000 Married Women under 45.		
	1881.	1891.	1901.		1881.	1891.	1901.
Liverpool	2,895	2,758	2,651	Gloucester	2,909	2,692	2,383
Sheffield	2,899	2,746	2,515	King's Lynn	2,897	2,672	2,377
Hull	2,770	2,667	2,495	Worcester	2,876	2,662	2,304
Manchester	2,912	2,694	2,423	Coventry	2,853	2,609	2,301
London	2,874	2,612	2,360	Derby	2,856	2,405	2,191
Leeds	2,883	2,707	2,336	Cambridge	2,862	2,528	2,114
Nottingham	2,760	2,291	2,243				

In each of these places I think we may safely believe that births were checked before 1881. The same may be said of certain industrial places, as follows:—

	Births per 10,000 Married Women under 45.				Births per 10,000 Married Women under 45.		
	1881.	1891.	1901.		1881.	1891.	1901.
Southampton	2,768	2,510	2,405	Saddleworth	2,780	2,511	1,994
Falmouth	2,786	2,545	2,219	Huddersfield	2,720	2,140	1,982
Ashton-under-Lyne	2,835	2,571	2,144	Haslingden	2,804	2,377	1,929
Stockport	2,777	2,536	2,125	Bury	2,802	2,413	1,903
Macclesfield	2,867	2,630	2,087	Glossop	2,762	2,451	1,887
Wharfedale	2,869	2,419	2,073	Bradford	2,682	2,310	1,873
Dewsbury	2,722	2,323	2,032	Rochdale	2,480	2,077	1,859
Oldham	2,724	2,419	2,024	Halifax	2,698	2,258	1,818
Keighley	2,606	2,455	2,023	Todmorden	2,471	2,084	1,818

All but the first two of the above are places devoted to manufactures of textile fabrics. It will be noticed that many of the ratios have since 1881

fallen very low. Then there are the following residential and military places:—

	Births per 10,000 Married Women under 45.				Births per 10,000 Married Women under 45.		
	1881.	1891.	1901.		1881.	1891.	1901.
Harrogate . . .	2,863	2,595	2,563	*Plymouth . . .	2,779	2,494	2,173
*Weymouth . . .	2,914	2,574	2,419	*Portsmouth . . .	2,793	2,499	2,166
*Godstone . . .	2,821	2,641	2,313	Guildford . . .	2,849	2,562	2,147
*Aldershot (North)	2,843	2,731	2,298	Thanet . . .	2,884	2,415	2,144
*Deal . . .	2,913	2,620	2,286	Brighton . . .	2,786	2,357	2,136
*Windsor . . .	2,784	2,493	2,254	Leamington . . .	2,833	2,560	2,119
Worthing . . .	2,896	2,461	2,242	Bath . . .	2,752	2,492	2,112
*Canterbury . . .	2,881	2,626	2,238	*Brentwood . . .	2,888	2,616	2,095
Tunbridge . . .	2,920	2,596	2,204	Bedford . . .	2,853	2,587	2,071
Cheltenham . . .	2,701	2,517	2,195	Isle of Wight . . .	2,765	2,353	2,066
Malvern . . .	2,777	2,637	2,182	Torquay . . .	2,899	2,535	2,004
*Easthampstead . . .	2,810	2,539	2,181	Hastings . . .	2,813	2,329	1,896
*Sheerness . . .	2,867	2,568	2,180	Bournemouth . . .	2,853	2,344	1,708

Places in the last list, which are more or less the seats of military establishments, are marked with an asterisk. The decline of the ratio of births in them is less pronounced than in the residential places; the latter show figures almost as depressed as those of the textile manufacturing places.

Only one of the county residues (Carnarvon and Anglesey) showed in 1881 a ratio of births (2,886 per 10,000), somewhat below the limit (2,920); none of them in 1901 showed ratios smaller than 2,239 (Sussex).

It only remains to notice certain places where the ratio has fallen from a point exceeding 2,920 to less than 2,200 per 10,000:—

	Births per 10,000 Married Women under 45.				Births per 10,000 Married Women under 45.		
	1881.	1891.	1901.		1881.	1891.	1901.
Northampton . . .	3,042	2,746	2,151	Herne Bay . . .	3,017	2,708	2,177
Lincoln . . .	2,927	2,546	2,149	Reigate . . .	3,058	2,474	2,156
Exeter . . .	2,987	2,647	2,077	Eastbourne . . .	3,047	2,485	2,120
Kidderminster . . .	2,995	2,572	2,135	Farnham . . .	3,204	2,821	2,073
Blackburn . . .	3,033	2,706	2,101	Weston-super-Mare . . .	3,000	2,558	2,053
Burnley . . .	3,088	2,639	2,079				

LATER FACTS AS TO BIRTHS.

At the moment of writing, the latest published Annual Report of the Registrar-General is that for 1906. It shows a total of 935,081 births against 932,460 (the average of 1900-1902), an increase of only 0.3 per cent. At the same time the total population, according to the Registrar's estimate, had increased by 5.9 per cent.—but of this I do not feel very sure.

In 1891-1901 the increase of the total population was about 12.2 per cent., but the number of married women under 45 increased by 17.3 per cent. If in making an estimate of the number of married women under 45 in 1906 we disregard the probability that a similar excess over the average rate occurred (largely due to a continuous shrinkage in the number of children), we have at least to add about 225,000 to the figures for 1901 if we agree with the Registrar's estimate, and on a fair apportionment we arrive at the following results:—

	1906. Married Women under 45.	1906. Births.	Births per 10,000.		Decrease in ratio.
			1901.	1906.	
Colliery districts	581,176	159,533	2,880	2,745	135
Industrial districts	287,915	72,524	2,683	2,519	164
Rural residues	653,538	159,275	2,473	2,437	36
Large towns	1,575,870	354,265	2,407	2,248	159
Old towns	177,546	39,241	2,358	2,210	148
Military places	139,413	29,823	2,236	2,139	97
Miscellaneous	6,804	1,387	2,202	2,039	163
Residential places	225,548	45,667	2,188	2,025	163
Textile manufacturing places	381,132	73,866	2,059	1,925	134
England and Wales	4,028,942	935,081	2,451	2,321	130

And if we hark back to 1881 the total amount of the reduction in each ratio is as follows:—

	Births per 10,000 Married Women under 45.		Decrease in ratio.
	1881.	1906.	
Colliery districts	3,244	2,745	499
Industrial districts	3,196	2,519	677
Rural residues	3,117	2,437	680
Large towns	2,898	2,248	650
Old towns	2,989	2,210	779
Military places	2,883	2,139	744
Miscellaneous	2,884	2,039	845
Residential places	2,932	2,025	907
Textile manufacturing places	2,819	1,925	894
England and Wales	3,006	2,321	685

so that were the old ratio regained, about 30 per cent. would be added to the births now registered.

Under the circumstances which now exist, viz., with declining birth and death rates, it is practically impossible to derive a forecast as to what the result of a Census in 1906 would have been, from the data published by the Registrar. Experience proves that a steady decline in the number of births is consistent with an increase in the number of young wives. But the cases of material increase in the absolute numbers of births in 1901-1906 may be noted, since they mean, apparently, that a much more considerable increase in total population is highly probable:—

	Births increase per cent. in 5 years.		Births increase per cent. in 5 years.		Births increase per cent. in 5 years.
Farnham	34.8	Tilbury	7.1	Yarmouth	2.7
Uxbridge	27.8	Canterbury	6.7	Barrow	2.6
Southend	21.8	Rugby	6.2	Lincoln (residue)	2.6
Poole	19.3	Grimsby	6.1	Chatham	2.4
Salisbury	14.2	Liverpool	5.8	Isle of Wight	2.4
Coventry	14.1	Guildford	5.7	Gloucester	2.4
Bournemouth	13.9	Worthing	5.6	Worcester	2.3
Aldershot (North)	13.8	Weston-super-Mare	5.1	Maidstone	2.3
Portsmouth	12.9	Barnsley group	5.1	St. Germans	2.1
Godstone	11.8	Hants and Berks (residue)	4.7	Bedford	2.1
Nuneaton	11.4	Rotherham	4.5	Stockport	2.1
Doncaster	11.3	Sheerness	4.1	Stafford	2.0
King's Lynn	10.6	Oldham	4.0	Torquay, &c.	1.9
Watford	10.2	Easthampstead	3.9	Reigate	1.9
Weymouth	9.9	Exeter	3.4	Folkestone	1.6
Luton	9.1	Durham group	3.3	Colchester	1.6
Middlesbro'	8.6	Chesterfield group	3.3	Dover	1.5
Swindon	7.9	Chester	3.2	Ashby-de-la-Zouche	1.2
Lincoln	7.7	Cockermouth	3.1	Plymouth	1.2
Brentwood	7.3	Manchester	2.8	London	1.2
Glamorgan group	7.1			Bristol	1.1

In the *ten* years 1891-1900 a falling-off of 17.2 per cent. in births at Macclesfield was found consistent with an increase of 4.4 per cent. in the number of married women under 45. In the Table below, the places are shown where in the *five* years 1901-1906 births declined by fully one-half of that proportion, namely 8.6 per cent., and where consequently there is at least a probability that a decrease in total population may have occurred:—

	Births decrease per cent. in 5 years.		Births decrease per cent. in 5 years.		Births decrease per cent. in 5 years.
Millom	27.3	Scarborough	13.5	Hastings	10.0
Helston	15.7	Kettering	11.2	Thanet	9.9
Wellingborough	15.3	Cornwall (residue)	11.2	Redruth	9.9
Keighley	14.8	Halifax	10.6	Penzance	9.5
Northampton	14.3	Herne Bay	10.6	Devon (residue)	9.1
Todmorden	13.8	Montgomery, &c.	10.0	Bradford	8.9

In the whole country, it has been seen, the estimated decline in the birth rate in these five years was from 2,451 to 2,321, or 5.3 per cent.; this figure being deducted from the falling-off above tabulated, the residue will give some notion of the probable decrease; but of course the local decline in birth rate may be several points greater or less than 5.3 per cent.

In like manner, the apparent increase in births tabulated should be augmented by 5.3 per cent. (more or less) in order to arrive at the probable rate of increase in general population in the places where an increase of births is shown. London thus will possibly have gained 6.5 per cent. in five years.

But the whole of these calculations might be very much modified if we had the true numbers of the population as it existed in 1906, and I must

confess to very grave doubts as to the accuracy of the guess of the Registrar-General, which is probably without any other basis than the presumption that things since 1901 have gone on exactly as they did (on an average) in 1891-1901. In that decennium somewhere about 100,000 men left for South Africa; in the succeeding quinquennium the survivors of that force returned. There is in this fact alone ground enough for the belief that a Census in 1906 would have been valuable and enlightening to an extent greater even than usual.

LATER FACTS AS TO DEATHS.

The Registrar-General, in settling his Estimates of population for the middle of 1901 and the middle of 1906, seems to have acted as follows.

He added at each age about 0.282 per cent. to males and 0.2915 per cent. to females, as shown by the 1901 Census, to represent about three months' growth to the middle of 1901, and he added about 6.11 per cent. to males and 6.30 per cent. to females to represent about 5½ years' growth to the middle of 1906:—

	1901 Census.		1901 (middle).		1906 (middle).	
	Males.	Females.	Males.	Females.	Males.	Females.
0-5	1,855,361	1,861,347	1,860,675	1,866,776	1,968,799	1,978,340
5-10	1,738,993	1,748,298	1,743,897	1,753,395	1,845,246	1,858,441
10-15	1,670,970	1,670,770	1,675,682	1,675,640	1,773,066	1,776,028
15-20	1,607,522	1,638,621	1,612,055	1,643,397	1,705,741	1,741,854
20-25	1,472,644	1,648,278	1,476,796	1,653,083	1,562,623	1,752,119
25-35	2,485,954	2,769,886	2,492,965	2,777,961	2,637,846	2,944,389
35-45	1,931,943	2,064,062	1,937,391	2,070,079	2,049,985	2,194,098
45-55	1,396,209	1,505,982	1,400,146	1,510,371	1,481,517	1,600,859
55-65	907,945	1,035,305	910,505	1,038,323	963,421	1,100,529
65-75	477,868	598,138	479,216	599,881	507,066	635,820
75-85	165,233	228,015	165,698	228,679	175,328	242,380
85 and upwards	17,971	30,528	18,036	30,616	19,069	32,452
	15,728,613	16,799,230	15,773,062	16,848,201	16,689,707	17,857,309

The resulting death rates shown in the next Table agree almost absolutely with his:—

	Males, 1901.			Females, 1901.		
	Corrected population.	Deaths.	Per thousand.	Corrected population.	Deaths.	Per thousand.
0-5	1,860,675	109,581	58.9	1,866,776	92,166	49.4
5-10	1,743,897	7,014	4.0	1,753,395	7,148	4.1
10-15	1,675,682	3,834	2.3	1,675,640	3,995	2.4
15-20	1,612,055	5,557	3.4	1,643,397	5,293	3.2
20-25	1,476,796	6,918	4.7	1,653,083	6,325	3.8
25-35	2,492,965	15,550	6.2	2,777,961	14,767	5.3
35-45	1,937,391	20,545	10.6	2,070,079	18,073	8.7
45-55	1,400,146	25,295	18.1	1,510,371	20,943	13.9
55-65	910,505	30,560	33.6	1,038,323	27,575	26.6
65-75	479,216	32,603	68.0	599,881	34,003	56.7
75-85	165,698	23,161	139.8	228,679	28,072	122.8
85 and upwards	18,036	5,000	277.2	30,616	7,607	248.5
	15,773,062	285,618	..	16,848,201	265,967	..

	Males, 1906.			Females, 1906.		
	Corrected population.	Deaths.	Per thousand.	Corrected population.	Deaths.	Per thousand.
0-5 . . .	1,968,799	97,178	49.4	1,978,340	81,503	41.2
5-10 . . .	1,845,246	6,252	3.4	1,858,441	6,652	3.6
10-15 . . .	1,773,066	3,496	2.0	1,776,028	3,856	2.2
15-20 . . .	1,705,741	5,167	3.0	1,741,854	4,748	2.7
20-25 . . .	1,562,623	6,133	3.9	1,752,119	5,764	3.3
25-35 . . .	2,637,846	14,766	5.6	2,944,389	13,918	4.7
35-45 . . .	2,049,935	19,431	9.5	2,194,098	17,087	7.8
45-55 . . .	1,481,517	24,870	16.8	1,600,859	20,761	13.0
55-65 . . .	963,421	31,998	33.2	1,100,529	27,884	25.3
65-75 . . .	507,066	34,845	68.9	635,820	35,680	56.1
75-85 . . .	175,328	24,004	136.9	242,380	29,867	123.2
85 and upwards	19,069	6,093	319.5	32,452	9,328	287.4
	16,689,707	274,233	..	17,857,309	257,048	..

But the assumption of an equal rate of increase at each age is contrary to recent experience, and leaves out of account the operation of the reduced birth rate. The Registrar-General's own calculations as to mean population in 1881-1891 and in 1891-1901 are very much at variance with that assumption:—

	Males.			Females.			Equivalent rate of increase for 5 years.	
	Mean population.		Increase per cent. in 10 years.	Mean population.		Increase per cent. in 10 years.	Males.	Females.
	1881-91.	1891-01.		1881-91.	1891-01.			
0-5 . . .	1,762,609	1,809,572	2.66	1,774,568	1,822,307	2.69	1.32	1.34
5-10 . . .	1,630,975	1,716,048	5.22	1,640,312	1,724,889	5.16	2.57	2.55
10-15 . . .	1,506,544	1,640,058	8.86	1,505,405	1,640,975	9.01	4.34	4.41
15-20 . . .	1,366,722	1,531,756	12.08	1,382,326	1,557,124	12.65	5.87	6.13
20-25 . . .	1,179,850	1,351,555	14.55	1,307,469	1,514,357	15.82	7.03	7.62
25-35 . . .	1,955,274	2,272,493	16.22	2,130,321	2,510,866	17.86	7.81	8.56
35-45 . . .	1,514,486	1,759,309	16.17	1,620,293	1,877,703	15.89	7.78	7.65
45-55 . . .	1,112,527	1,286,406	15.63	1,222,633	1,398,218	14.36	7.53	6.94
55-65 . . .	746,339	833,879	11.73	849,206	955,602	12.53	5.70	6.08
65-75 . . .	417,389	460,434	10.31	503,754	569,834	13.12	5.03	6.36
75 and upwards)	153,686	171,688	11.71	205,794	238,406	15.85	5.69	7.63
	13,346,401	14,833,198	..	14,142,081	15,810,281	..	..	..

The Registrar-General's figures for the middle of 1901 cannot be far wrong. If we add to these five years' increase in accordance with the above Table we shall have the following figures for the middle of 1906:—

Ages.	New Estimate (1906), middle of year.		As compared with Registrar's				Death rates on new Estimates.		Registrar's Estimates.	
	Males.	Females.	Males.		Females.		Male.	Female.	Male.	Female.
			More.	Less.	More.	Less.				
0-5 . . .	1,885,300	1,891,720	..	83,499	..	86,620	51.5	43.1	49.3	41.2
5-10 . . .	1,788,800	1,798,030	..	56,446	..	60,411	3.5	3.7	3.4	3.6
10-15 . . .	1,748,357	1,749,464	..	24,709	..	26,564	2.0	2.2	2.0	2.2
15-20 . . .	1,706,611	1,744,210	870	..	2,356	..	3.0	2.7	3.0	2.7
20-25 . . .	1,580,607	1,779,070	17,984	..	26,951	..	3.9	3.2	3.9	3.3
25-35 . . .	2,687,594	3,015,890	49,748	..	71,501	..	5.5	4.6	5.6	4.7
35-45 . . .	2,088,120	2,228,454	38,135	..	34,356	..	9.3	7.7	9.5	7.8
45-55 . . .	1,505,590	1,615,194	24,073	..	14,335	..	16.5	12.9	16.8	13.0
55-65 . . .	962,433	1,101,450	..	988	921	..	33.2	25.3	33.2	25.3
65-75 . . .	503,320	638,014	..	3,746	2,194	..	69.2	55.9	68.7	56.1
75 and upwards)	194,197	279,085	..	200	4,253	..	155.0	140.4	154.8	142.6
	16,650,929	17,840,581	..	38,778	..	16,728	..	..	..	..

The only line in the above new estimate which can be properly tested is the first.

The numbers of births registered in three successive periods of five years were:—

1891-5 . . .	2,309,895 males	..	2,229,371 females.
1896-00 . . .	2,347,976 "	..	2,267,911 "
1901-05 . . .	2,389,525 "	..	2,303,744 "

In each interval the births increased by about 1.7 per cent. The safest mode of estimating the numbers at age 0-5 who would have been counted in 1906, remembering that even at that early age migrations are of some moment, is to adopt the assumption that such numbers would compare with births in the preceding five years in the proportions which obtained in 1901. On that principle we arrive at:—

1,886,037 males,
1,892,662 females

as the probable population in March 1906. The figures so arrived at include the effect of both mortality and migrations. It seems likely that mortality should be estimated as of less amount, and the gain by migrations as something more, so that there should be an addition to the result on both accounts, and also a small addition to bring the figures up to the middle of the year. But disregarding such minor matters, the resulting death rates at this age would be:—

For males . . . 51.53 per thousand
,, females . . . 43.06 ,,

figures which differ materially from those of the Registrar-General, and which confirm the new estimate shown in the last Table.

I am far from being confident that the rest of the figures in that Table may be accepted.

Referring to what is said on page 93, there can be no doubt but that

the 1901 figures for males were lowered in consequence of the absence of an unusual number of troops in South Africa, and as the Table adopts those figures as a basis it virtually supposes that no troops had returned home by 1906. Yet we know in fact that many thousands came back, and also that for a time at least there was an unusual influx of aliens. I have little confidence in the statistics of emigration as affording a measure of the net loss or gain in each year, but upon the whole I anticipate that a Census in 1906 would have shown somewhat larger figures for males than those of the "new estimate."

The Registrar-General's estimates of increased population naturally vary in the several counties, but upon a detailed investigation I arrive at the following results for grouped registration counties as being his; and I add a column for the death-rates by the new estimate:—

	Population, 1906.		Death Rate, 1906. Age 0-5.	
	Total.	Age 0-5.	Registrar's.	New.
Bucks, Oxford	365,023	39,512	26·1	27·1
Wilts, Dorset	476,003	51,350	27·0	28·3
Sussex	637,582	62,604	28·3	30·2
Salop	374,085	41,289	29·2	30·2
Cornwall	320,157	32,835	28·9	31·5
Hants, Berks	1,119,898	118,195	31·5	32·7
Gloucester	1,150,700	123,505	31·0	33·1
Northampton	802,439	89,458	31·4	34·6
Norfolk	841,913	93,677	34·2	36·4
Devon	683,315	68,533	35·5	38·0
Cumberland	332,213	37,663	37·1	38·5
Lincoln	529,145	58,581	40·8	42·2
Metropolitan Counties	8,953,737	994,218	43·8	45·3
Leicester	1,646,668	197,391	43·5	45·3
Stafford	2,843,971	349,177	47·8	50·2
York	3,816,599	439,335	49·9	52·6
Durham	1,947,536	254,662	55·3	55·3
Lancashire	5,534,818	631,839	55·9	59·9
Montgomery	148,862	16,166	31·6	33·9
Carmarthen	291,483	31,567	35·1	35·8
Carnarvon	179,343	18,490	42·9	44·8
Denbigh	195,046	20,562	50·0	46·1
Glamorgan	1,356,540	176,466	50·9	50·9
England and Wales	34,547,016	3,947,075	45·3	47·3

In all but three instances the Registrar's death rate is too low; and those three are notable as colliery districts. The total 3,947,075 derived from details only slightly differs from the Registrar's estimate for the whole country, which has been given as 3,947,139.

The "new" estimate founded on the numbers of births in 1901-1905 being taken as the more reliable (although probably too low, because the death rate has declined), death rates founded on it compare as shown in the following Table with the figures for 1901, and it is gratifying to observe large reductions of infant mortality in Durham, Wales and elsewhere, which it may be hoped will be followed by further abatements there and generally:—

DEATH RATES PER 1000 IN 1901 AND 1906 AT AGE 0-5.

County Groups.	1901.			1906.			Decrease.		
	Both Sexes.	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.	Males.	Females.
Lancashire	65·2	70·8	59·6	59·9	65·0	54·8	5·3	5·8	4·8
Durham	70·3	75·4	65·3	55·3	59·9	50·6	15·0	15·5	14·7
Yorkshire	60·5	65·8	55·2	52·6	57·2	48·1	7·9	8·6	7·1
Stafford, &c.	58·5	64·2	52·8	50·2	54·5	46·1	8·3	9·7	6·7
Wales and Monmouth	57·7	63·0	52·5	47·4	51·6	43·1	10·3	11·4	9·4
Leicester, &c.	54·5	59·6	49·4	45·3	49·9	40·8	9·2	9·7	8·6
Metropolitan Counties	52·0	56·2	47·8	45·3	49·3	41·2	6·7	6·9	6·6
Lincoln	43·4	48·8	37·9	42·2	47·6	36·9	1·2	1·2	1·0
Cumberland	40·9	45·0	36·8	38·5	43·5	33·4	2·4	1·5	3·4
Devon	41·2	45·3	37·1	38·0	42·9	33·1	3·2	2·4	4·0
Norfolk, &c.	42·1	47·9	36·3	36·4	38·7	34·0	5·7	9·2	2·3
Northampton, &c.	35·7	39·7	31·7	34·6	39·5	29·7	1·1	0·2	2·0
Gloucester and Somerset	35·8	38·7	32·9	33·1	35·9	30·3	2·7	2·8	2·6
Hants and Berks	38·5	42·4	34·5	32·7	35·1	30·4	5·8	7·3	4·1
Cornwall	40·8	46·0	35·5	31·5	35·4	27·6	9·3	10·6	7·9
Salop and Hereford	34·8	38·3	31·4	30·2	33·6	26·9	4·6	4·7	4·5
Sussex	36·5	39·5	33·5	30·2	34·0	26·4	6·3	5·5	7·1
Wilts and Dorset	29·3	31·7	26·9	23·3	30·8	25·9	1·0	0·9	1·0
Bucks and Oxford	33·6	37·0	30·2	27·1	30·5	23·8	6·5	6·5	6·4
England and Wales	54·3	59·1	49·5	47·3	51·5	43·1	7·0	7·6	6·4

AGES 0-19 AS RETURNED IN 1901.

In the main portion of this paper I have dealt with migrations on the footing that as they chiefly occur after 15 years of age, and as it is highly convenient to avoid the necessity of apportioning deaths at early ages, my object would be sufficiently attained by bringing together in one line the first fifteen years of life.

In the present essay I am to endeavour, by the aid of the age returns in the 1901 Census Tables and the annual records of births in registration districts, to arrive at an opinion as to what losses and gains at ages up to 18-19 had been sustained or received by the populations counted in 1901. It was necessary for this purpose to estimate the effect of certain changes in boundaries, and thus bring the births into due accord with the numbers counted as surviving.

The population counted in each district depends of course on:

1. The numbers of births.
2. The losses by mortality.
3. The loss or gain by migrations.

I soon found that the figures for registration counties (or groups of such counties) would not be very useful, simply because in many cases the population of such divisions is far from being homogeneous. I was therefore driven to construct Tables for the 160 districts elsewhere defined.

The resulting totals for classes of districts at ages 0-13 are given in the Tables on page 99. And the ratios of those living in the several

groups of districts when the Census was taken to the corresponding numbers of births are shown below :—

Males : Living, per cent. on Births (both sexes).									
	0-5.	5-10.	10-13.	13—	14—	15—	16—	17—	18—
Rural	42·34	40·25	38·61	38·00	37·32	36·46	35·82	32·76	31·75
Residential	42·85	41·34	46·40	46·16	46·22	45·54	44·32	40·94	40·26
Military	41·49	41·65	39·99	38·98	39·69	43·64	47·01	46·51	62·07
Large towns	39·32	37·23	36·83	35·96	35·94	35·67	35·02	34·52	35·37
Old towns	40·47	38·60	38·80	38·09	37·42	37·72	36·60	35·43	36·81
Textile manufacturing places	38·52	35·80	35·32	34·72	35·44	34·88	35·18	34·22	34·26
Industrial places	39·61	37·73	38·19	37·13	36·83	36·17	36·02	34·52	35·19
Colliery districts	39·75	37·45	38·58	38·12	37·78	37·36	38·08	37·66	39·32
Miscellaneous	44·15	46·09	50·28	51·33	50·41	53·06	45·42	49·42	60·18
England and Wales	40·19	38·31	38·07	37·36	37·20	36·85	36·57	35·23	36·05

Females : Living, per cent. on Births (both sexes).									
	0-5.	5-10.	10-13.	13—	14—	15—	16—	17—	18—
Rural	42·20	40·13	38·34	36·64	34·59	33·36	32·20	30·64	30·26
Residential	43·04	44·23	46·03	46·42	46·58	47·73	49·07	49·83	50·35
Military	41·69	41·38	39·85	38·96	38·61	38·77	39·05	39·11	39·83
Large towns	39·41	37·56	37·30	36·67	36·39	36·94	37·80	38·65	40·59
Old towns	40·50	38·93	38·85	39·87	39·12	38·94	39·20	37·84	39·37
Textile manufacturing places	39·30	36·75	36·19	36·11	36·52	37·05	38·17	37·32	39·23
Industrial places	40·02	37·96	37·95	36·94	35·32	34·57	33·87	32·62	33·54
Colliery districts	39·82	37·47	38·63	37·44	36·85	35·70	35·06	35·16	35·96
Miscellaneous	43·82	45·11	45·18	42·46	39·82	42·55	41·59	39·38	38·19
England and Wales	40·32	38·51	38·23	37·42	36·67	36·49	36·58	36·35	37·40

The differences of the figures for the two sexes are mainly due to the inequality in the number of births, counterbalanced by the higher mortality amongst males, but also in part to migrations. They are shown below :—

Excess or Deficiency of Females.									
	0-5.	5-10.	10-13.	13—	14—	15—	16—	17—	18—
Rural	·14	·12	·27	1·36	2·73	3·10	3·62	2·12	1·49
Residential	·19	·06	·37	·26	·36	2·19	4·75	8·89	10·09
Military	·20	·27	·14	·02	1·08	4·87	7·96	7·40	22·24
Large towns	·09	·33	·47	·71	·45	1·27	2·78	4·13	5·22
Old towns	·03	·33	·05	1·78	1·70	1·22	2·60	2·41	2·56
Textile manufacturing places	·78	·95	·87	1·39	1·08	2·17	2·99	3·10	4·97
Industrial places	·41	·23	·24	·19	1·51	1·60	2·15	1·90	1·65
Colliery districts	·07	·02	·05	·68	·93	1·66	3·02	2·50	3·36
Miscellaneous	·33	·98	5·10	8·87	10·59	10·51	3·83	9·04	21·99
England and Wales	·13	·20	·16	·06	·53	·36	·01	1·12	1·35

If we disregard the few "miscellaneous" districts, which are subject to special influences, it will appear that the movements of population up

to and including the age 10-13 are very similar in the two sexes, and this agrees with what we might expect. That there are such movements, however, will appear on closer investigation.

On making a rough estimate of probable losses by mortality, it appears that the effect of migrations is on balance nearly, as shown in the next Table :—

MALES.	0-5.		5-10.		10-13.	
	Estimated Survivors.	Gain or Loss.	Estimated Survivors.	Gain or Loss.	Estimated Survivors.	Gain or Loss.
Rural	365,045	4,611	372,988	12,111	228,394	15,112
Residential	95,245	1,509	88,736	7,758	51,220	7,450
Military	55,645	550	50,896	2,794	30,428	626
Large towns	661,550	12,516	599,056	11,440	340,962	5,902
Old towns	80,245	210	76,565	97	44,584	552
Textile manufacturing places	151,935	1,649	146,815	780	88,305	762
Industrial places	139,590	1,537	128,455	1,689	72,523	2,516
Colliery districts	282,063	7,560	256,196	5,308	135,480	8,324
Miscellaneous	3,035	28	3,010	249	1,781	337
England and Wales	1,834,353	20,948	1,722,717	16,250	993,677	9,833

FEMALES.	0-5.		5-10.		10-13.	
	Estimated Survivors.	Gain or Loss.	Estimated Survivors.	Gain or Loss.	Estimated Survivors.	Gain or Loss.
Rural	365,821	6,625	373,643	13,860	228,474	16,720
Residential	95,587	1,591	89,025	7,317	51,264	6,937
Military	55,893	572	51,109	2,234	30,464	480
Large towns	667,809	7,686	604,798	11,164	341,964	9,302
Old towns	81,006	497	77,292	164	44,721	469
Textile manufacturing places	155,227	1,485	150,122	209	88,944	751
Industrial places	141,244	1,362	130,003	920	72,794	1,775
Colliery districts	284,909	5,180	258,918	2,740	135,907	8,086
Miscellaneous	3,013	27	2,980	210	1,780	123
England and Wales	1,850,509	10,781	1,737,890	10,352	996,312	11,203

The proportions of the foregoing figures to recorded births are now shown :—

	Estimated Survivors : being percentages of persons born.									Gains and Losses by migration.					
	Males.			Females.			Males.			Females.					
	0-5.	5-10.	10-13.	0-5.	5-10.	10-13.	0-5.	5-10.	10-13.	0-5.	5-10.	10-13.			
Rural	42·88	41·60	41·35	42·98	41·68	41·36	·54	1·35	2·74	·78	1·55	3·03			
Residential	42·18	40·78	40·51	42·33	40·92	40·54	·67	3·56	5·89	·71	3·36	5·49			
Military	41·08	39·48	39·19	41·26	39·64	39·23	·41	2·17	·80	·42	1·73	·62			
Large towns	38·59	36·53	36·21	38·96	36·88	36·31	·73	·70	·63	·45	·68	·99			
Old towns	40·37	38·65	38·33	40·75	39·01	38·45	·10	·05	·47	·25	·08	·40			
Textile manufacturing places	38·10	35·99	35·63	38·93	36·80	35·89	·41	·19	·31	·37	·05	·30			
Industrial places	39·18	37·24	36·91	39·64	37·69	37·05	·43	·49	1·28	·38	·27	·90			
Colliery districts	38·71	36·69	36·35	39·11	37·08	36·46	1·04	·76	2·23	·71	·39	2·17			
Miscellaneous	43·75	42·57	42·23	43·43	42·14	42·26	·40	3·52	8·00	·39	2·97	2·92			
England and Wales	39·74	37·95	37·70	40·09	38·28	37·80	·45	·36	·37	·23	·23	·43			

If we disregard the small "miscellaneous" group, influenced by barracks, schools and asylums, we find the only serious movements in the first two periods of life are, losses in the rural districts, and gains in the residential and military districts, the latter including several districts which are partly residential. We may be sure that the large towns gain from the rural and lose to the residential districts, but the balance is not heavy. I am inclined to attribute some part of the small gains shown in industrial and colliery districts to non-registration of births, or incorrect returns of ages.

In the period 10-13 we see that the losses of the rural and gains of residential districts are accentuated. There is a decreased gain in the military districts, but a decidedly increased gain in the colliery districts, and even in some of the industrial ones.

In this state of things, it may be useful to show which are the most striking examples of loss or gain up to the age of 5-10, and to follow up this local study with a detailed examination of the progress made in after years, taking the population aged 5-10 as a commencing datum point.

As between birth and the age 0-5 we find moderate gains (exceeding 2½ per cent.) in the following districts:—

	Age 0-5. Gain per cent.*			Age 0-5. Gain per cent.*	
	Males.	Females.		Males.	Females.
Hull	3·8	2·8	Aldershot (North) . . .	5·0	6·6
Leeds	3·3	2·7	St. Germans	9·2	·8
Sheffield	5·3	3·7	Salisbury	3·3	3·0
Liverpool	3·5	3·5	Godstone	1·1	4·4
			Deal	·1	3·4
Gloucester	6·3	3·1	Chatham	·8	3·5
			Reigate	5·1	·2
Huddersfield	3·2	·9	Herne Bay	3·2	6·7
Rochdale	2·9	3·5	Clacton	3·1	·2
Stockport	3·5	3·2	Uxbridge	11·5	12·3
Dewsbury	·8	2·9	Thanet	2·9	4·7
Leek	1·4	3·6	Southend	5·1	13·4
			Blackpool	6·4	7·1
Walsall	2·8	2·2	Watford	8·0	7·0
Rotherham	2·8	4·2	Worthing	5·8	6·6
Crewe	2·5	·1	Llandudno	2·5	7·2
Barrow	4·3	2·8	Guildford	3·7	2·0
Swindon	3·2	2·0	Tunbridge	2·8	3·7
Doncaster	2·6	3·2	Weston-super-Mare . . .	2·6	·
Tilbury	3·0	7·2	Hastings	4·6	1·0
Millom	6·2	1·8	Morecambe	2·6	4·1
Middlesbro'	2·2	3·2	Bournemouth	4·1	·6
			Staines	2·3	13·1
Durham Group	3·3	2·3	Harrogate	2·4	10·0
Barnsley "	4·3	3·8			
Nuneaton	3·7	5·9	Brentwood	·1	3·3
Cannock	5·7	3·4	Sussex	3·3	1·2
Chesterfield Group	2·4	3·0			
Dover	3·6	4·5			

* Calculated on the estimated number of survivors.

Thus 51 out of 160 districts seem to attract children, usually of both sexes. And although the attractions of London and Manchester are measured by a smaller figure than 2½ per cent., there is good reason to believe that both places gain children upon a balance.

It is clear that although residential and military districts gain children in twenty-five instances, there are notable cases where such districts do not attract them, including Bath, Scarborough and Cheltenham.

The losing districts are mainly rural residues of county groups. Of these residues the following show the most striking losses; yet in no case are such losses very heavy:—

	Age 0-5. Loss per cent.			Age 0-5. Loss per cent.	
	Males.	Females.		Males.	Females.
Devon	5·2	2·9	Salop.	1·9	2·1
Montgomery	3·9	4·2	Norfolk	1·7	2·1
Monmouth	3·6	1·8	Gloucester	1·7	3·3
Cumberland	3·2	3·7	Carnarvon	1·6	3·4
York	3·1	3·5	Wilts.	1·3	1·7
Durham	3·0	3·2	Lancashire	·8	1·6
Carmarthen	2·9	3·2	Cornwall . . . . .	..	2·2
Lincoln	2·0	2·4			

The other districts which appear to have lost more than 2 per cent. of children aged 0-5 were:—

	Age 0-5. Loss per cent.			Age 0-5. Loss per cent.	
	Males.	Females.		Males.	Females.
Nottingham	1·6	3·2	Canterbury	2·4	7·4
			Sheerness	3·1	2·6
Norwich	3·2	1·8	Weymouth	·1	3·3
Lynn	*2·4	7·5	Colchester	*1·3	3·0
Cambridge	4·3	*1·4			
Yarmouth	·7	3·1	Malvern	5·3	3·0
Derby	·1	2·1	Scarborough	2·2	3·8
			Southport	2·0	2·8
Macclesfield	3·1	3·5	Leamington	·9	2·8
Kidderminster	3·9	*1·3	Torquay	2·4	4·1
Glossop	2·3	·	Rhyl	·7	3·8
Wharfedale	3·0	·2	Isle of Wight	2·6	1·3
Falmouth	5·4	3·2	Cromer	3·0	*1·2
Stafford	2·8	3·8	Bath	·6	3·0
Cockermouth	2·6	1·1	Cheltenham	·2	2·4
Whitehaven	·1	3·0			
Wrexham	2·6	2·7	Easthampstead	*·5	2·8

* Gain.

These instances are sufficient to show that the material losses are not restricted to country districts.

If we assume that the course of children's migrations was pretty constant as between 1891 and 1901, an assumption not altogether rash

we must conclude that somewhat altered conditions prevailed in the five years, commencing with age 0-5 and ending with age 5-10. It appears that residential and military places gained many more children than in the preceding five years, and that the large towns gained a very small number of girls, whilst the rural districts, the colliery districts, and the places where textile goods are manufactured, all sustained losses.

Let us first see how the gaining districts stood, taking in the whole movement up to age 5-10:—

	Age 5-10. Gain or Loss per cent.*			Age 5-10. Gain or Loss per cent.*	
	Males.	Fema'es.		Males.	Females.
Birmingham	4.3	5.5	Chatham	8.5	7.7
Sheffield	4.5	4.8	Aldershot (North)	6.7	9.5
Manchester	4.1	3.4	Weymouth	7.1	9.1
Hull	3.9	3.4	St. Germans	7.2	8.6
Liverpool	3.8	3.5	Plymouth	6.6	6.0
Coventry	4.6	4.9	Folkestone	5.6	8.7
Ipswich	3.0	4.4	Deal	4.6	5.7
Gloucester	3.0	3.8	Portsmouth	4.4	3.8
Reading	2.8	3.4	Windsor	5.0	1.7
Carlisle	1.6	3.1	Salisbury	6.1	2.2
Stockport	7.9	7.8	Brentwood	11.2	12.0
Rochdale	4.7	7.0	Maidenhead	8.1	6.8
Burnley	3.8	4.1	Easthampstead	4.7	.8
Keighley	3.7	3.0	Southend	37.5	43.7
Doncaster	13.4	14.7	Blackpool	34.3	35.2
Rugby	12.0	18.2	Thanet	32.1	20.4
Southampton	12.8	12.7	Staines	30.1	23.7
Grimsby	8.0	6.6	Uxbridge	26.6	31.1
Wellingborough	8.0	5.2	Harrogate	21.8	22.6
Swindon	7.3	8.8	Herne Bay	20.2	16.6
Rotherham	6.6	3.9	Watford	19.4	16.6
Tilbury	6.2	6.3	Worthing	18.8	16.3
Kettering	4.5	5.1	Llandudno	18.8	14.3
Luton	3.8	2.1	Morecambe	12.1	12.1
Millom	3.8	4.4	Reigate	10.6	15.0
Middlesbro'	2.6	3.7	Guildford	11.6	6.5
Nuneaton	13.5	13.9	Tunbridge	9.8	3.6
Chesterfield	4.9	4.0	Bedford	8.1	5.8
Ashby-de-la-Zouch	6.0	.7	Weston-super-Mare	7.6	7.5
Godstone	15.5	10.3	Hastings	7.7	6.9
Dover	10.0	8.2	Clacton	4.4	10.1
			Eastbourne	7.0	2.2
			Poole	6.9	1.8
			Cromer	2.5	8.0
			Rhyl	2.6	4.8
			Bournemouth	3.0	4.0

* Calculated on estimated number of survivors.

The gains here shown are in many cases of great magnitude, especially in certain residential districts. Some of the residential places are however losers, as already noted.

The losses of children are not so remarkable, even in the rural residues of counties.

	Age 5-10. Loss or Gain per cent.*			Age 5-10. Loss or Gain per cent.*	
	Males.	Females.		Males.	Females.
Oxford	2.2	4.7	Sheerness	4.6	5.8
Cambridge	4.3	1.5	Canterbury	3.7	4.0
Wakefield	2.1	4.0	Farnham . . . . .	.7	5.2
Maidstone	2.0	4.0	Colchester	1.5	3.5
Saddleworth	11.5	16.4	Malvern	8.9	3.0
Glossop	12.3	11.5	Residues, viz.:—		
Macclesfield	8.1	5.9	Cumberland	9.1	8.5
Huddersfield	6.2	6.4	Lancashire	7.8	9.6
Kidderminster	3.1	8.2	Devon	6.0	5.6
Dewsbury	4.0	4.6	Wilts	5.9	5.8
Bury	3.6	4.0	Monmouth	5.2	5.8
Haslingden	3.7	3.8	York	5.0	5.4
Helston	11.0	7.1	Norfolk	5.0	5.1
Cockermouth	10.3	7.5	Denbigh	4.1	4.5
Stafford	8.7	7.8	Durham	3.8	6.0
Whitehaven	7.8	7.5	Gloucester	4.6	3.7
Barrow	7.0	6.4	Cornwall	2.7	5.1
Redruth	4.4	6.0	Lincoln	3.3	3.7
Burton-on-Trent	3.4	6.1	Northampton	1.6	3.9
Penzance	1.1	6.9	Bucks	3.5	1.6
Wolverhampton	2.1	3.6	Carmarthen	1.6	3.2

* Calculated on estimated number of survivors.

Slighter gains or losses affected the remaining districts, viz.:—

	Age 5-10. Gain or Loss.			Age 5-10. Gain or Loss.	
	Males.	Females.		Males.	Females.
Leicester	1.4	2.9	Crewe . . . . .	.5	.8
Leeds	1.5	1.7	Falmouth	2.0	2.2
Nottingham	1.1	1.6	Barnsley	1.2	2.0
Bristol	1.7	1.2	Glamorgan	2.0	1.3
London . . . . .	.7	.6	Durham	2.1	.7
Lincoln	2.3	.4	Wrexham		
Lynn	2.0	2.5	Cannock	1.0	1.9
Yarmouth	2.3	.6	Wigan . . . . .	.2	1.9
Norwich	1.0	.2	Brighton . . . . .	.3	1.2
York	1.0	.8	Cheltenham	2.4	2.4
Northampton	1.4	1.0	Isle of Wight . . . . .	.8	1.8
Derby	2.6	1.3	Scarborough . . . . .	.3	1.7
Worcester	2.4	1.8	Southport	1.2	1.5
Exeter	1.2	2.1	Torquay	1.8	.6
Chester	1.0	2.4	Leamington . . . . .	.2	1.8
Preston . . . . .	.4	2.3	Bath	2.9	2.2
Oldham	1.0	2.4	Rural residues—		
Ashton-under-Lyne . . . . .	.7	1.1	Sussex	2.8	1.4
Bolton . . . . .	.9	.5	Carnarvon	2.2	1.3
Blackburn . . . . .	.5	1.1	Essex . . . . .	.8	.8
Halifax	1.7	.1	Montgomery . . . . .	.8	.8
Bradford	1.3	1.3	Hants	2.4	1.8
Leek	1.9	1.6	Kent	2.7	2.1
Todmorden	2.4	2.4	Stafford	1.7	2.4
Wharfedale	1.0	.8	Salop	1.9	2.8
Walsall	1.9	.7	Leicester	2.6	2.9
Potteries	1.7	.5		1.8	2.5

It is at all events clear that in a good many cases the numbers attaining the age 5-10 are either inflated or depleted by migrations to an extent we cannot disregard, when we are considering the proportion of those enumerated at somewhat higher ages to the births of which they are the survivors.

Let us introduce here some information as to the numbers counted in 1901 at the age 5-10, compared with the recorded births in the districts before noticed as gaining most by early migrations.

Gaining districts.	Survivors counted, aged 5-10. Per cent. on births.		Gaining districts.	Survivors counted, aged 5-10. Per cent. on births.	
	Males.	Females.		Males.	Females.
Hull	37·85	38·41	Windsor	43·87	42·46
Manchester	35·75	36·04	Dover	44·08	43·63
Birmingham	38·07	38·89	Aldershot (North)	44·11	45·36
Sheffield	36·23	36·90	Deal	44·16	44·40
Liverpool	36·16	36·33	Weymouth	44·83	45·84
Coventry	40·57	40·32	St. Germans	45·03	45·50
Gloucester	39·84	39·96	Godstone	50·56	48·63
Ipswich	40·60	41·89	Salisbury	44·96	41·26
Reading	41·27	41·61	Brentwood	47·57	47·37
Carlisle	40·00	41·02	Maidenhead	45·07	44·19
Rochdale	39·27	40·59	Easthampstead	45·69	43·47
Keighley	39·22	39·29	Reigate	47·73	49·40
Burnley	35·86	36·81	Herne Bay	51·04	49·51
Stockport	37·53	38·59	Uxbridge	51·72	53·44
Rotherham	39·63	39·27	Staines	53·96	51·09
Southampton	45·10	44·91	Thanet	53·49	47·73
Swindon	44·32	44·84	Southend	56·14	58·93
Doncaster	42·04	43·25	Blackpool	51·64	52·91
Wellingborough	44·00	42·79	Watford	50·63	49·53
Kettering	41·38	41·80	Worthing	49·08	47·31
Luton	41·68	41·12	Harrogate	48·98	49·31
Grimsby	40·56	40·45	Llandudno	47·35	46·61
Tilbury	43·79	43·18	Guildford	46·66	44·84
Rugby	47·58	50·35	Tunbridge	45·66	43·03
Middlesbro'	37·63	38·30	Weston-super-Mare	45·56	45·65
Millom	38·66	42·14	Bedford	45·55	44·52
Nuneaton	43·78	44·31	Eastbourne	44·57	42·43
Ashby-de-la-Zouch	42·19	39·58	Hastings	44·20	44·17
Chesterfield	40·18	40·89	Morecambe	43·19	43·43
Plymouth	39·93	40·32	Bournemouth	42·76	43·21
Portsmouth	40·38	40·31	Rhyl	41·38	42·69
Chatham	42·67	42·84	Cromer	43·47	45·67
Folkestone	42·92	44·54	Clacton	43·38	45·89
			Poole	43·84	41·71

As already shown, the average survivors in England and Wales are 37·95 males, 38·28 females; and in the residential districts 40·78 males, 40·92 females. These are the numbers which I believe would have survived, had there been no migrations.

The next Table relates to the districts where losses seem to have occurred.

Sussex (the residue) appears to gain children exceptionally; the survivors counted were 44·29 males, 43·60 females per 100 births.

Losing districts.	Survivors counted, aged 5-10. Per cent. on births.		Losing districts.	Survivors counted, aged 5-10. Per cent. on births.	
	Males.	Females.		Males.	Females.
Cambridge	38·27	40·29	Wolverhampton	34·92	35·09
Oxford	39·27	38·92	Canterbury	37·97	37·67
Wakefield	35·75	35·70	Sheerness	38·26	37·72
Maidstone	38·72	38·18	Farnham	39·76	38·17
Dewsbury	33·38	34·37	Colchester	39·74	37·86
Huddersfield	35·45	36·49	Residues, viz.:—		
Saddleworth	34·81	33·05	Lancashire	36·48	35·66
Bury	34·58	35·16	Cumberland	38·34	38·56
Haslingden	35·36	36·18	York	38·81	38·86
Macclesfield	35·63	36·59	Monmouth	39·41	39·14
Glossop	32·26	33·43	Durham	39·53	38·85
Kidderminster	38·50	37·34	Denbigh	38·89	38·54
Malvern	38·72	41·84	Lincoln	39·74	39·84
Burton-on-Trent	38·54	37·54	Norfolk	39·90	39·90
Stafford	37·63	37·82	Devon	40·23	39·68
Whitehaven	35·85	36·42	Gloucester	40·39	40·77
Cockermouth	35·20	36·74	Wilts	40·47	40·52
Millom	38·66	42·14	Bucks	40·54	41·50
Barrow	35·51	35·96	Carmarthen	39·67	39·30
Redruth	35·39	35·32	Cornwall	39·89	39·40
Helston	34·38	35·99	Northampton	40·84	40·13
Penzance	37·73	36·15			

If Malvern (and some other residential places) appear to lose a few of the children born there, possibly most of those so lost were children of temporary residents.

The ratios of apparent survivors calculated upon the numbers of births show a very wide range. In such a place as Southend the numbers counted much exceed the original births; in Glossop they are materially below the probable number of survivors. But the figures previously furnished give the best measure obtainable of these local gains and losses.

It will be noticed that the ratios of counted children to births in *gaining districts*, as shown on page opposite, are in several instances low, especially in large towns and textile manufacturing places, but this is accounted for by the heavy infantile mortality experienced in such places.

Coming now to the losses and gains at later ages, as compared with the figures at age 5-10, the following Table of differences in the several classes is derived from the ratios already tabulated:—

MALES.	Excess or Deficiency of ratios* compared with those at 5-10.						
	10-13.	13—	14—	15—	16—	17—	18—
Military districts	1·66	2·67	1·96	1·99	5·36	4·86	20·42
Residential districts	2·06	1·82	1·88	1·20	·02	3·40	4·08
Miscellaneous districts	4·19	5·24	4·32	6·97	·67	2·33	14·09
Colliery districts	1·13	·67	·33	·09	·63	·21	1·87
Old towns	·20	·51	1·18	·88	2·00	3·17	1·79
Large towns	·40	1·27	1·29	1·56	2·21	2·71	1·86
Industrial places	·46	·60	·90	1·56	1·71	3·21	2·54
Textile manufacturing places	·48	1·08	·36	·92	·62	1·58	1·54
Rural residues	1·64	2·25	2·93	3·79	4·43	7·49	8·50
England and Wales	·24	·95	1·11	1·46	1·74	3·08	2·26

* These are the ratios of survivors counted per cent. upon total births.

FEMALES.	Excess or Deficiency of ratios * compared with those at 5-10.						
	10-13.	13--	14--	15--	16--	17--	18--
Military districts	1·53	2·42	2·77	2·61	2·33	2·27	1·55
Residential districts	1·75	2·14	2·30	3·45	4·79	5·55	6·07
Miscellaneous districts	·07	2·65	5·29	2·56	3·52	5·73	6·92
Colliery districts	1·16	·03	·62	1·77	2·41	2·31	1·51
Old towns	·08	·91	·19	·01	·27	1·09	·44
Large towns	·26	·89	1·17	·62	·24	1·09	3·08
Industrial places	·01	1·02	2·64	3·39	4·09	5·34	4·42
Textile manufacturing places	·56	·64	·23	·30	1·42	·57	2·48
Rural residues	1·79	3·49	5·54	6·77	7·93	9·49	9·87
England and Wales	·28	1·09	1·84	2·02	1·93	2·16	1·11
Probable loss by mortality alone	·60	·85	1·00	1·15	1·30	1·45	1·60

* These are the ratios of survivors counted per cent. upon total births.

Condensing from this Table, and allowing for assumed losses by death, the results of migrations alone to the date of the Census in 1901 may be summarised thus :—

	Gains or Losses by Migrations.*					
	Males.			Females.		
	5-10 to 14-15.	14-15 to 18-19.	Total.	5-10 to 14-15.	14-15 to 18-19.	Total.
Military districts	·96	22·98	22·02	1·77	1·82	·05
Residential districts	2·88	5·36	2·48	3·30	4·37	7·67
Miscellaneous districts	5·32	10·37	15·69	4·29	1·03	5·32
Colliery districts	1·33	2·14	3·47	·38	·29	·09
Old towns	·18	·01	·19	1·19	·85	2·04
Large towns	·29	·03	·26	·17	4·80	4·63
Industrial places	·10	1·04	·94	1·64	1·18	2·82
Textile manufacturing places	·64	·58	·06	·77	3·31	4·08
Rural residues	1·93	4·97	6·90	4·54	3·73	8·27
England and Wales	·11	·55	·66	·84	1·33	·49

* Percentages upon total births (of both sexes).

It should be noticed that in the larger Table, and in this Summary, it is tacitly assumed that the migrations of young people year by year are similar. The care of the education and health of our children does really present the same problems year by year, and the regularity of the gains or losses shown seems to corroborate the idea that in large masses of population similarly employed there is a degree of constancy in the movements of young persons. Smaller populations exhibit much less regular movements, and errors in the returns of ages affect them more.

When we compare the numbers surviving at each year of age from 14-15 to 18-19, making due allowance for deaths, we see a steady tendency towards gain or loss in the great majority of cases, and any apparent aberration in one or more years may be regarded with comparative indifference.

The figures given below are arrived at in the same way as those shown

in the summary Table, but show the ratios of apparent loss or gain by migrations up to each age from 14-15 to 18-19 after allowing for mortality :—

	Males.					Females.				
	Gains or Losses* from 5-10 to					Gain or Losses* from 5-10 to				
	14--	15--	16--	17--	18--	14--	15--	16--	17--	18--
Military districts	·96	3·14	6·66	6·31	22·02	1·77	1·46	1·03	·82	·05
Residential "	2·88	2·55	1·28	1·95	2·48	3·30	4·60	6·09	7·00	7·67
Miscellaneous districts	5·32	8·12	·63	3·78	15·69	4·29	1·41	2·22	4·28	5·32
Colliery districts	1·33	1·06	1·93	1·66	3·47	·38	·62	1·11	·86	·09
Old towns	·18	·27	·70	1·72	·19	1·19	1·16	1·57	·36	2·04
Large towns	·29	·41	·91	1·26	·26	·17	·53	1·54	2·54	4·63
Industrial places	·10	·41	·41	1·76	·94	1·64	2·24	2·79	3·89	2·82
Textile manufacturing places	·64	·23	·68	·13	·06	·77	1·45	2·72	2·02	4·08
Rural residues	1·93	2·64	3·13	6·04	6·90	4·54	5·62	6·63	8·04	8·27
England and Wales	·11	·31	·44	1·63	·66	·84	·87	·63	·71	·49

* Percentages on total births (of both sexes).

Gains at particular years of age, such as the gain of males in military districts at age 18- (equal to 15·71 per cent. on births), must be approximately arrived at by taking the differences between successive columns of figures: the gradual gain of girls in residential places and in large towns illustrates this.

We can now proceed to set out the facts as arrived at for each district, dealing with the districts in classes. The gains of males between the age 5-10 and the ages 14-18 are almost confined to the military, residential and colliery classes and the small group "miscellaneous."

MILITARY.

Many of these districts, which I have marked with an asterisk, were gainers of children up to the age 5-10 :—

	Males.					Females.				
	Gains or Losses from 5-10 to					Gains or Losses from 5-10 to				
	14--	15--	16--	17--	18--	14--	15--	16--	17--	18--
*St. Germans	16·73	68·90†	100·74†	21·57	6·06	8·64	6·68	11·23	5·08	6·94
*Weymouth	0·2	24·10	100·28§	86·15§	29·28	2·85	2·09	2·83	3·00	·02
Farnham	3·99	1·29	2·53	·09	84·43	·21	4·37	4·23	4·77	·12
*Deal	·36	3·66	5·70	12·54	59·75	4·90	9·16	7·44	8·46	9·12
Canterbury	4·20	·66	3·46	6·13	57·85	5·40	·65	2·21	·53	·18
*Aldershot (N.)	8·84	12·63	10·98	9·46	52·75	·14	4·04	5·61	1·05	4·84
*Godstone	2·37	·94	5·65	·46	38·89	·63	7·59	6·45	1·47	1·01
Colchester	4·07	2·67	3·29	15·59	36·26	6·16	2·59	7·17	9·17	5·97
*Folkestone	4·24	2·97	2·73	4·45	24·90	·17	4·92	10·54	14·83	12·09
*Dover	1·62	1·25	1·04	·55	24·16	2·75	·95	·86	3·99	2·52
*Chatham	1·16	·20	1·07	·65	22·88	3·48	5·09	3·82	5·00	3·24
Sheerness	6·14	·02	2·57	21·52	20·30	2·91	6·27	1·29	4·15	7·64
*Portsmouth	2·18	·09	·39	2·47	11·54	1·21	1·56	1·01	·08	2·34
*Plymouth	2·99	4·53	9·60	7·19	8·44	2·86	·47	·65	·75	·20
*Windsor	·87	4·52	4·01	4·51	·60	·71	1·11	·28	2·33	·28
*Salisbury	4·08	3·48	6·90	9·01	7·25	·38	2·50	2·73	2·77	1·90

† Mainly on H.M. ships.

‡ Mainly on H.M. ships at Portland.

The only military districts which really attract young women are Folkestone and Colchester. The efflux of young men from Salisbury and Windsor in search of employment exceeds the number of soldiers attracted at these ages.

RESIDENTIAL.

I shall divide these districts at once into those which show a tangible gain of children at the age 5-10, and those which do not show such gain. The following twenty show substantial gains of such children:—

	Males. Gains or Losses from 5-10 to					Females. Gains or Losses from 5-10 to				
	14—	15—	16—	17—	18—	14—	15—	16—	17—	18—
Llandudno . . .	4.74	11.80	14.14	2.11	11.87	14.35	20.09	25.56	21.51	31.20
Harrogate . . .	14.86	18.28	12.85	10.04	11.26	16.47	28.75	25.95	39.64	30.70
Eastbourne . . .	4.06	.95	1.09	5.48	2.50	9.69	18.95	27.10	32.26	29.54
Blackpool . . .	12.78	10.01	8.96	6.32	12.11	10.73	9.23	10.95	13.45	20.09
Bedford . . .	11.40	14.88	13.03	5.62	5.69	7.58	7.21	14.11	11.92	12.01
Southend* . . .	7.28	1.07	1.68	2.85	7.01	7.04	2.32	3.39	10.48	7.85
Guildford . . .	11.00	7.70	6.62	8.45	10.88	1.98	3.01	1.04	1.90	3.53
Morecambe . . .	3.84	2.05	5.27	5.43	9.40	1.60	.07	4.74	4.05	3.23
Hastings . . .	.34	2.34	3.80	2.68	3.12	5.14	7.45	9.73	10.25	13.36
Worthing . . .	3.00	1.03	1.51	6.48	6.84	8.48	12.53	5.53	11.82	7.70
Thanet . . .	6.85	1.08	6.57	11.04	12.87	9.86	11.85	7.54	5.78	7.69
Tunbridge . . .	.99	3.73	1.23	2.55	7.15	2.15	5.27	1.71	5.20	4.94
Watford . . .	4.68	.72	2.43	5.02	5.80	4.64	.80	.53	2.22	4.60
Weston-super-Mare . . .	2.62	.91	8.02	9.91	7.48	3.77	6.41	5.08	9.10	1.86
Reigate . . .	.46	4.41	3.68	1.45	1.17	.34	2.52	3.48	2.38	1.45
Herne Bay . . .	5.07	1.09	.74	13.58	16.99	.40	2.47	6.41	1.43	3.32
Cromer . . .	1.65	.56	3.12	3.45	2.22	3.69	3.33	3.28	9.63	7.08
Clacton . . .	2.64	6.48	18.88†	2.36	6.05	.55	7.52	5.28	9.06	9.61
Uxbridge . . .	6.53	10.31	11.64	13.63	12.56	14.35	16.51	18.59	17.91	12.31
Staines . . .	12.04†	4.16	10.99	12.87	13.51	.37	6.83	10.14	7.80	13.79

* School of Gunnery.

† Scholars.

‡ Mainly at Harwich and probably on board H.M. ships there.

The first six show solid additional gains of either sex; but Guildford and Morecambe appear less attractive for girls than for boys at the time of the year at which the Census was taken. The six next after Morecambe show losses of boys eventually much more than neutralizing any previous gain. The figures for Reigate are not striking. The remaining five lose large numbers of both sexes, the temporary gains in the Clacton district and in Staines having doubtless some local explanation. The loss of boys from Herne Bay deserves special mention.

The remaining twelve do not attract many children up to the age 5-10 (see next Table).

Many districts which attract young children do not continue to attract boys after 15—for example, Thanet and Herne Bay, and a smaller number fail to retain girls—for instance, Clacton and Uxbridge. On the other hand, districts which exercise little attraction for infants begin to attract rather later; amongst these are Bournemouth, Malvern, Bath and Cheltenham.

Places which attract neither infants nor young persons to any great

	Males. Gains or Losses from 5-10 to					Females. Gains or Losses from 5-10 to				
	14—	15—	16—	17—	18—	14—	15—	16—	17—	18—
Bournemouth . . .	4.65	9.16	12.73	12.29	13.77	15.30	30.15	43.96	45.79	65.34
Cheltenham . . .	4.43	5.28	6.18	1.99	5.13	5.17	10.99	17.39	18.53	17.64
Bath . . .	7.02	3.46	3.28	.96	7.31	4.62	6.44	10.28	7.23	11.14
Malvern . . .	13.43	14.28	21.20	10.66	1.50	10.92	7.77	13.73	8.92	10.62
Poole* . . .	.14	4.33	1.15	.58	4.67	3.22	5.51	7.39	9.82	16.78
Brighton . . .	1.10	1.09	1.79	4.37	5.06	5.70	7.16	6.49	8.72	9.14
Southport . . .	.81	4.51	1.33	.20	1.74	1.90	3.14	7.38	8.24	8.74
Scarborough . . .	.84	2.98	1.85	2.90	6.93	.40	4.55	.21	4.63	5.78
Rhyl . . .	.50	2.25	1.13	.19	4.51	.67	2.51	1.33	.59	.13
Leamington . . .	3.37	1.35	4.19	1.46	.76	3.84	.69	3.03	4.21	1.98
Torquay . . .	1.22	1.13	2.03	8.31	6.81	1.26	1.23	3.30	.08	1.81
Isle of Wight . . .	4.21	2.90	5.55	5.95	6.94	3.50	2.08	3.05	2.01	1.32

* Here there is a gain of boys up to age 5-10.

extent are the Isle of Wight, Torquay and Leamington, and with them it would hardly be unfair to class Scarborough and Rhyl.

COLLIERY DISTRICTS.

	Males. Gains or Losses from 5-10 to					Females. Gains or Losses from 5-10 to				
	14—	15—	16—	17—	18—	14—	15—	16—	17—	18—
Glamorgan . . .	2.03	2.28	5.05	6.31	9.07	1.31	.36	1.38	2.36	3.92
Nuneaton . . .	5.85	4.54	9.40	1.93	7.77	6.94	3.41	5.01	2.68	.60
Wrexham . . .	4.20	2.70	4.96	2.03	5.37	1.96	1.71	3.21	5.25	6.50
Cannock . . .	1.56	1.38	3.47	3.56	1.28	7.42	10.23	10.86	10.91	10.33
Barnsley . . .	2.41	.06	2.04	1.79	3.90	1.06	5.21	6.90	6.15	6.99
Ashby-de-la-Zouch . . .	.41	1.60	2.97	.65	2.78	1.70	3.08	6.62	5.43	6.64
Chesterfield . . .	.06	1.09	1.40	. .	2.58	1.76	1.75	2.89	3.64	3.25
Durham . . .	1.29	.38	.09	.21	1.08	.90	.07	1.03	.47	.43
Wigan . . .	.47	.99	1.82	.85	1.58	.28	.02	.48	.46	.56

Nuneaton, Chesterfield and Ashby-de-la-Zouch gained children up to 5-10, and, as shown, Nuneaton made further gains, but that place and Glamorgan probably received whole families of immigrants. The loss of young women in Cannock was unusually heavy. The movements in the important Durham group were curiously slight.

The few "miscellaneous" are now shown:—

	Males. Gains or Losses from 5-10 to					Females. Gains or Losses from 5-10 to				
	14—	15—	16—	17—	18—	14—	15—	16—	17—	18—
Easthampstead . . .	16.17*	28.57*	6.64	19.69*	55.01*	7.35	2.78	8.58	1.86	5.12
Brentwood . . .	3.53†	.99	.16	3.88	12.49†	6.68	4.61	2.10	7.75	7.97
Maidenhead . . .	.19	1.07	.05	6.99	6.88	.18	1.33	2.34	2.81	1.10

* Sandhurst College cadets.

† Workhouse School.

‡ Warley Barracks.

In the large towns, old towns and manufacturing places producing textile fabrics the chief phenomenon is a moderate gain of young women.

LARGE TOWNS.

	Males. Gains or Losses from 5-10 to					Females. Gains or Losses from 5-10 to				
	14-	15-	16-	17-	18-	14-	15-	16-	17-	18-
Leicester . . .	.48	3.39	2.82	.13	1.77	.93	5.73	5.97	4.92	8.49
Bristol . . .	1.02	.03	.15	2.86	2.43	2.04	3.48	5.02	1.88	3.17
Leeds . . .	1.06	1.35	2.91	1.43	.90	2.61	3.74	3.57	3.34	4.66
Birmingham . . .	.50	.65	.23	.12	.37	.34	.66	1.51	1.94	3.66
London . . .	.33	.30	1.10	1.33	.03	.21	.54	1.83	3.20	5.80
Hull . . .	.91	.60	.89	1.92	.38	1.47	.06	.13	.94	2.31
Sheffield . . .	1.15	.48	.42	.03	1.05	.60	.44	1.06	1.18	2.40
Manchester . . .	.01	.06	.12	.14	.03	.01	.26	2.14	3.24	3.67
Liverpool . . .	1.80	2.98	3.16	3.29	2.01	2.41	1.63	1.98	.47	1.31
Nottingham* . . .	4.17	4.50	5.44	4.97	4.79	1.53	1.63	2.14	.31	3.40

* These figures being for Nottingham as in 1901, do not compare with the Table in Appendix C, but with a Table in Appendix G.

Birmingham, Hull, Sheffield, Manchester and Liverpool seem to have gained rather many children up to the age 5-10; of these only Liverpool shows sensible loss a little later, due perhaps to the fact that some of the immigrant children would have claims upon them (or might possess openings) elsewhere.

OLD TOWNS.

The "old" towns are very varied in character. They are arranged with some reference to their apparent prosperity.

	Males. Gains or Losses from 5-10 to					Females. Gains or Losses from 5-10 to				
	14-	15-	16-	17-	18-	14-	15-	16-	17-	18-
Cambridge . . .	2.21	3.33	3.35	1.82	1.80	3.38	3.56	8.84	2.20	11.98
Worcester . . .	.42	3.03	2.40	.77	.08	1.88	4.86	5.80	5.50	8.97
*Coventry . . .	.34	2.53	2.56	2.80	4.94	3.95	2.35	4.57	.83	6.83
Oxford . . .	2.65	2.06	.63	.91	4.07	4.66	6.21	6.10	5.05	4.75
Northampton . . .	1.68	1.58	.04	1.40	.70	7.36	5.49	4.63	3.59	4.07
*Reading . . .	7.59	3.29	7.72	1.97	3.58	2.63	3.93	.02	2.62	4.05
Norwich . . .	.20	.14	1.19	1.85	2.10	.90	1.91	3.46	3.13	3.87
*Gloucester . . .	2.88	2.54	.51	.98	1.39	4.05	3.87	3.00	1.82	3.85
Derby . . .	.66	.79	.29	1.72	.78	.48	1.09	3.18	1.58	3.81
Yarmouth . . .	4.12	1.27	6.78	3.47	4.99	.52	1.56	.24	2.68	2.20
York . . .	2.07	3.49	1.23	.44	8.10	1.97	.73	1.97	.23	1.26
Exeter . . .	1.05	.69	.95	4.04	3.64	4.59	.90	1.23	.12	1.16
Chester . . .	1.73	.24	2.49	2.18	.91	.89	.22	.55	3.61	.31
Wakefield . . .	2.69	.28	.15	.65	1.31	2.14	2.18	1.97	3.63	1.16
*Carlisle . . .	2.47	.44	2.51	.52	.08	.11	2.14	.27	6.72	2.27
*Ipswich . . .	1.10	2.17	1.59	2.31	.89	1.41	.88	1.62	1.48	2.44
Lynn . . .	.55	5.13	4.88	2.92	2.73	4.03	2.01	.48	2.36	2.49
Maidstone . . .	.49	2.36	3.37	3.91	1.13	.53	3.01	.19	6.58	3.56
Lincoln . . .	2.42	2.15	2.57	3.67	2.52	1.16	3.79	6.15	4.58	4.95

* These places show gains of children aged 5-10.

Out of nineteen places only Reading, Coventry, York and Cambridge show any persistency in attracting young men, and of these Cambridge loses in the last two years more than all that had been gained. The first ten places show real gains of young women.

TEXTILE MANUFACTURING PLACES.

	Males. Gains or Losses from 5-10 to					Females. Gains or Losses from 5-10 to				
	14-	15-	16-	17-	18-	14-	15-	16-	17-	18-
Keighley . . .	.81	7.97	1.57	8.50	3.53	4.75	10.34	5.41	11.83	9.52
Burnley . . .	6.70	4.30	4.79	4.70	3.89	5.15	8.65	6.71	8.24	9.48
Stockport . . .	3.59	2.20	.98	.36	.40	.93	2.62	4.26	3.26	7.68
Bolton . . .	3.12	2.68	3.95	1.70	1.41	3.47	4.25	4.94	2.52	4.85
Blackburn . . .	.97	1.00	.70	.98	.81	1.57	.68	2.06	1.19	5.10
Bury . . .	1.25	1.50	.29	.01	1.75	.67	.41	2.81	1.86	2.18
Preston . . .	1.01	1.17	1.47	1.32	.28	3.29	1.58	.03	.33	3.21
Haslingden . . .	1.50	.37	.16	1.78	1.83	2.77	.71	4.28	1.13	2.42
Oldham . . .	.75	1.25	1.02	2.07	1.34	1.33	1.17	.23	2.09	3.97
Ashton-under-Lyne . . .	2.10	.63	1.81	.39	.30	.81	.83	1.14	.22	2.22
Todmorden . . .	3.04	.77	.36	1.57	.73	1.95	.86	3.54	.99	6.04
Wharfedale . . .	2.36	2.29	4.11	1.22	2.10	1.16	.83	2.29	.26	1.24
Bradford . . .	.50	.12	2.11	.15	.39	.75	3.30	5.03	3.12	5.62
Halifax . . .	.28	.28	.68	.73	1.46	1.90	1.53	2.88	2.41	3.89
Dewsbury . . .	.40	1.64	1.25	1.32	.70	1.93	1.16	3.49	1.66	2.71
Rochdale . . .	1.71	2.16	1.44	4.94	3.63	1.63	1.60	.18	1.29	1.66
Leek . . .	.40	3.49	2.76	2.04	4.87	2.50	1.95	2.55	4.69	3.25
Huddersfield . . .	1.13	2.99	1.65	.10	2.08	.91	.87	.75	1.61	3.56
Glossop . . .	1.65	1.49	3.55	2.95	1.63	.73	.78	3.04	4.24	2.12
Saddleworth . . .	2.03	5.17	6.76	8.32	8.38	2.25	.90	5.32	1.96	4.79
Kidderminster . . .	1.71	3.63	7.05	7.53	8.90	.14	1.92	2.00	.27	.44
Macclesfield . . .	2.24	1.48	1.57	2.45	5.82	3.08	1.61	.63	1.42	1.64

There is not a very important attraction for boys even in the four places ranked first and in Glossop, and it seems often to die away after 17. As respects girls, a gain of some importance is nearly general. Leek,

Saddleworth and (as respects males) Kidderminster show losses of some magnitude.

INDUSTRIAL.

The remaining industrial places may be divided into twelve which attract children up to the age 5-10, and thirteen others. And first, as to the twelve:—

	Males.					Females.				
	Gains or Losses from 5-10 to					Gains or Losses from 5-10 to				
	14—	15—	16—	17—	18—	14—	15—	16—	17—	18—
Kettering . . .	3·26	4·76	6·47	7·03	12·29	·55	7·35	7·05	9·60	9·04
Wellingborough . . .	4·25	2·29	2·57	2·39	2·26	1·52	2·37	4·70	·03	1·22
Grimsby . . .	·48	1·50	·91	2·39	·50	1·18	1·49	3·15	1·54	5·06
Rotherham . . .	1·34	·92	·94	·90	2·24	2·85	2·29	4·56	4·20	5·20
Doncaster . . .	3·80	1·90	4·87	2·20	3·34	1·87	·65	3·49	3·95	1·76
Rugby . . .	6·99	14·02	9·22	3·27	4·19	12·94	12·72	11·60	11·88	14·44
Swindon . . .	3·73	10·44	4·31	4·04	11·70	4·79	1·77	6·21	3·57	2·40
Tilbury* . . .	23·66	13·02	10·71	14·58	17·12	2·42	9·02	7·48	4·84	2·86
Luton . . .	3·65	3·31	3·69	7·48	7·26	5·05	·50	2·12	1·32	3·32
Millom . . .	·61	2·99	5·36	2·63	2·40	7·19	5·66	7·84	9·26	9·64
Middlesboro' . . .	·74	2·08	2·78	4·53	2·03	1·67	4·87	5·20	6·31	4·89
Southampton . . .	1·45	·91	1·06	4·45	4·25	1·17	·03	2·77	3·24	·19

* Training ship "Exmouth," Industrial School ship "Shaftesbury," and Thames Reformatory School ship "Cornwall."

The extraordinary rush of young women away from Rugby must claim notice. The "colliery" element in Rotherham and Doncaster seems to be responsible for a smaller exodus. Millom, Middlesboro' and Tilbury can hardly be supposed to have any attraction for young women.

The thirteen districts which do not attract many children are next shown:—

	Males.					Females.				
	Gains or Losses from 5-10 to					Gains or Losses from 5-10 to				
	14—	15—	16—	17—	18—	14—	15—	16—	17—	18—
Walsall . . .	·27	2·41	1·85	·24	2·34	1·96	1·12	2·05	·81	3·74
Redruth . . .	2·38	1·91	3·82	·43	2·89	·23	2·58	2·12	1·62	·62
Crewe . . .	1·05	·40	2·10	2·39	2·13	1·76	3·16	3·03	6·22	6·22
Cockermouth . . .	·70	3·26	3·19	·13	1·19	3·42	5·71	4·93	4·01	2·11
Whitehaven . . .	4·64	5·65	2·43	9·38	9·22	7·00	6·77	7·88	9·40	9·75
Barrow . . .	4·52	·21	3·97	4·14	4·17	1·22	4·58	5·83	10·78	9·91
Burton-on-Trent . . .	1·07	1·39	·03	2·32	2·63	2·33	3·21	5·69	7·23	6·46
Stafford . . .	1·76	1·72	2·75	3·23	4·75	6·26	4·29	3·69	7·12	6·49
Potteries . . .	·42	·12	·01	1·47	·45	·68	1·34	·91	1·09	·18
Wolverhampton . . .	1·35	1·69	1·55	2·47	1·59	3·11	3·02	3·76	4·68	3·84
Penzance . . .	2·96	2·20	1·03	2·49	5·17	2·95	1·16	2·83	3·08	2·70
Falmouth . . .	5·56	5·28	2·96	·99	9·09	2·07	5·47	5·10	3·93	1·57
Helston . . .	1·31	6·15	2·17	1·49	4·92	4·89	5·76	6·78	5·09	7·70

These districts are on the whole losing young people of both sexes after the age 5-10, if we except the first two. It is noticeable that just when Cockermouth gains a few boys (age 17-) the neighbouring district of Whitehaven loses a large number.

RURAL RESIDUES.

It will be seen that few contrasts are possible between districts, every one of which is losing young people. Eleven residues show a smaller loss at the higher ages than the rest, and are mostly associated with manufactures or with mining.

	Males.					Females.				
	Gains or Losses from 5-10 to					Gains or Losses from 5-10 to				
	14—	15—	16—	17—	18—	14—	15—	16—	17—	18—
Lancashire . . .	·31	2·18	1·31	3·30	3·31	·89	3·30	4·16	4·19	4·48
York . . .	2·39	·85	1·26	3·25	4·46	3·16	2·87	4·46	5·30	5·49
Durham . . .	3·06	4·99	2·62	5·73	5·38	4·11	5·74	·17	2·40	1·91
Cumberland . . .	1·48	3·11	·83	2·80	3·39	2·46	2·55	·58	3·88	1·85
Leicester . . .	1·87	1·56	·64	3·83	3·26	2·79	2·77	1·96	3·18	1·92
Stafford . . .	2·55	1·07	2·56	4·15	4·45	4·35	4·71	7·84	8·39	7·54
Carnarvon . . .	2·18	2·60	4·73	5·55	7·48	3·55	2·44	4·71	5·54	6·27
Carmarthen . . .	·71	2·97	1·07	4·89	5·94	1·43	1·88	1·46	3·98	2·92
Denbigh . . .	1·45	4·75	·46	3·13	4·92	2·64	2·16	3·78	6·87	9·42
Cornwall . . .	2·53	2·77	4·33	7·15	6·77	4·33	5·03	6·35	4·69	6·18
Monmouth . . .	·79	4·45	3·15	8·15	5·84	4·56	6·22	5·32	8·66	8·50

The remaining thirteen are to a great extent agricultural, and there has been no influence tending to counteract the desire to obtain employment elsewhere, which is at the root of most migratory movements.

	Males.					Females.				
	Gains or Losses from 5-10 to					Gains or Losses from 5-10 to				
	14—	15—	16—	17—	18—	14—	15—	16—	17—	18—
Norfolk . . .	2·86	3·81	4·63	7·68	9·83	5·85	8·56	9·81	11·95	12·08
Wilts . . .	1·96	2·41	3·12	7·17	9·57	6·40	7·90	9·61	11·48	10·83
Gloucester . . .	1·77	3·95	3·91	7·60	9·42	5·54	7·08	6·90	10·55	10·03
Devon . . .	·85	2·94	4·63	8·30	9·11	4·65	4·56	6·00	6·60	6·40
Sussex . . .	2·45	3·18	6·20	7·78	8·44	5·54	7·35	9·85	10·28	9·98
Hants . . .	1·88	2·74	4·56	7·11	8·43	5·72	7·60	8·91	10·22	11·35
Montgomery . . .	3·87	4·55	3·79	7·56	8·14	4·78	4·78	6·62	8·68	10·06
Essex . . .	·38	·57	2·69	7·34	7·99	6·15	8·27	10·83	10·65	11·53
Salop . . .	3·11	3·21	3·53	5·58	7·72	4·65	5·71	7·34	7·99	8·56
Bucks . . .	·66	·23	3·34	5·53	6·95	5·41	6·83	7·69	9·55	10·95
Northampton . . .	2·27	3·70	4·71	5·89	6·74	5·56	6·76	8·31	10·07	10·31
Lincoln . . .	2·91	3·55	2·04	6·47	6·23	4·60	5·39	5·71	7·53	9·10
Kent . . .	1·96	3·31	3·82	7·91	6·22	5·24	6·37	8·33	8·51	9·53

It will be seen that between 14- and 16-, except in the case of Sussex, the ratios of the absent males only increase by moderate steps, equalling little more than 1 per cent. on births (or say 2½ per cent. on the living males) per annum. In Norfolk, at 17-, we have an augmented loss of males, equalling about 3 per cent. on births, and at 18- a further loss of 2 per cent. So that in two years more than 12 per cent. of the living males must have departed.

In the case of females quite a large number leave Norfolk, Hants, Essex, Sussex and other counties between 14- and 15-. Essex and Kent sustain heavy loss in the next year of age; Sussex also loses considerably. But after 16- Sussex on balance loses few or none, and the heaviest losses are experienced by Lincoln, Norfolk, Bucks, Gloucester and Hants, with Montgomery and Monmouth. I think losses in Devon and Sussex may be counterpoised by gains, as it is likely young women may to a certain extent be attracted there on account of their education, or as attendants.

It might appear advisable to compute the numerical loss at each year of age, but I have decided not to do so, partly because I do not repose much confidence in the returns of ages for particular years, and partly for the reason that the mortality of the young varies in particular years to an extent which would affect the validity of figures, based on the assumption of a steady average loss.

It is enough, I think, to have given the means of forming an opinion with respect to the tendency towards loss and gain in each of the 160 districts at the ages mentioned.

But, by way of illustration, four examples shall be given of districts where there have been remarkable gains and losses. The estimated number of survivors has been slightly adjusted in each case, so as to bring the result of migrations at ages 0-15 into harmony with the figures in Appendix C.

BOURNEMOUTH (REGISTRATION DISTRICT OF CHRISTCHURCH).

Age in 1901.	Births.	Estimated survivors.		Counted.		Gain by migrations.		Per centage on estimated survivors.*	
		Male.	Female.	Males.	Females.	Males.	Females.	Male.	Female.
0-5.	6,548	2,864	2,858	2,921	2,824	57	34	2.0	1.2
5-10	6,943	2,946	2,939	2,969	3,000	23	61	.8	2.1
10-13	3,669	1,534	1,530	1,850	1,851	316	321	20.6	21.0
13	1,227	510	508	609	666	99	158	19.4	31.1
14	1,252	519	518	581	720	62	202	11.9	39.0
						557	708		
15	1,101	454	453	559	795	105	342	23.1	75.5
16	1,026	422	422	556	881	134	459	31.3	108.8
17	972	398	397	521	851	123	454	30.9	114.3
18	892	364	363	490	954	126	591	34.6	162.8

* These ratios should be compared with those shown on page 109 in order to gain a truer idea as to the actual migrations.

The immigration into this place evidently begins to be important soon after age 10-, and attains very considerable dimensions. The gains shown at ages 15 and upwards include of course those prior to the Census of 1891.

RUGBY REGISTRATION DISTRICT.

Age in 1901.	Births.	Estimated survivors.		Counted.		Gain or Loss by migrations.		Per centage on estimated survivors.	
		Male.	Female.	Males.	Females.	Males.	Females.	Male.	Female.
0-5.	4,263	1,790	1,842	1,897	1,908	107	66	6.0	3.6
5-10	3,756	1,536	1,580	1,787	1,892	251	312	16.3	19.7
10-13	2,250	907	933	1,209	1,059	302	126	33.3	13.5
13	814	326	336	401	328	75	8	23.0	2.4
14	868	346	356	465	316	119	40	34.4	11.2
						854	456		
15	847	337	347	512	309	175	38	51.9	11.0
16	809	320	330	449	303	129	27	40.3	8.2
17	832	328	338	411	308	83	30	25.3	8.9
18	816	320	330	341	280	21	50	6.6	15.1

If there be usually a gain of females, such as is shown above, at the age 5-10, then there must as frequently be a heavy loss of girls at slightly higher ages. The gain of boys at age 15- reaches its highest point. It is conceived that some of the boys attending Rugby School reside in New Bilton, outside the urban district, as there is an excess of males at ages 14 to 18 in the rural area which forms the residue of the registration district.

UXBRIDGE REGISTRATION DISTRICT.

Age in 1901.	Births.	Estimated survivors.		Counted.		Gain or Loss by migrations.		Per centage on estimated survivors.	
		Male.	Female.	Males.	Females.	Males.	Females.	Male.	Female.
0-5.	4,816	1,990	2,093	2,271	2,286	281	193	14.1	9.2
5-10	4,233	1,708	1,797	2,215	2,289	507	492	29.7	27.4
10-13	2,630	1,033	1,087	1,210	1,217	177	130	17.1	12.0
13	880	343	362	410	365	67	3	19.5	.8
14	869	337	356	384	331	47	25	14.0	7.0
						1,079	793		
15	914	354	373	368	327	14	46	4.0	12.3
16	936	361	380	363	314	2	66	.6	17.4
17	898	345	364	329	306	16	58	4.6	16.0
18	860	329	346	323	340	6	6	1.8	1.7

I can only attribute the great influx of children aged 5-10 to the immigration of families from London. There is a workhouse school at Southall-Norwood, with 210 male and 171 female children, which may have a share in producing the result shown. In the place mentioned, and also in the urban district of Uxbridge, there is an excess of girls at the age 5-10, whilst in the rural parts there is a deficiency of girls at the same age. There is evidently an exodus of young people after 10 years of age, which ends in bringing the actual numbers at 17- lower than they would have been in the absence of any migrations.

CANNOCK REGISTRATION DISTRICT.

Age in 1901.	Births.	Estimated survivors.		Counted.		Gain or Loss by migrations.		Per centage on estimated survivors.	
		Male.	Female.	Males.	Females.	Males.	Females.	Male.	Female.
0-5	7,929	3,267	3,262	3,435	3,399	168	137	5.1	4.2
5-10	7,654	3,038	3,031	3,025	2,997	13	34	.4	1.1
10-13	4,025	1,573	1,570	1,710	1,645	137	75	8.7	4.8
13	1,314	510	509	491	513	19	4	3.7	.8
14	1,480	573	571	547	455	26	116	4.5	20.3
						247	66		
15	1,429	551	549	563	397	17	152	3.1	27.7
16	1,433	550	548	498	387	52	161	9.5	29.4
17	1,414	540	539	488	379	52	160	9.6	29.7
18	1,370	522	521	537	373	15	148	2.9	28.4

This is an example of an unprosperous colliery district. The apparent influx of young children is neutralised by losses later on, and from the age 14 onwards the girls seem to seek employment elsewhere.

BIRTHS: VARIATIONS IN ABSOLUTE NUMBERS IN RECENT YEARS.

When dealing with the Registrar-General's annual reports, it is difficult to measure the decline in the English birth rate for want of knowledge as to the movement of population since the last Census, and especially that of a part of the population, viz., married women aged 15-45. But there is no great difficulty in comparing the absolute numbers of births in groups of registration counties, it being only necessary to make such corrections for alterations of boundary as will render the figures strictly comparable.

The year 1882 seems a fairly good starting point for such a calculation. The births were nearly equal in that year and the next, and upon the whole the figures were maintained with some increase until 1886. But in 1887 there was a check, which has continued down to the present time.

In 1886, it may be noted, no county group fell below 97½ per cent. of the births registered in 1882, with the exception of four Welsh groups, viz., Denbigh, Carnarvon, Carmarthen and Montgomery, comprehending all Wales outside the South Wales coalfield (see Table opposite).

PERSONS RETURNED AS UNOCCUPIED.

There is a great deal of inequality in the proportions of young women returned as being "unoccupied." In 1901 we find:—

	Age 15-20	Age 20-25
Numbers of women in urban districts . . .	1,305,358	1,341,109
" " rural districts . . .	333,263	307,169
Totals	1,638,621	1,648,278
Of whom "unoccupied" in urban districts . . .	411,824	558,753
" " rural districts . . .	147,373	161,051
Totals	559,197	719,804

RATIOS OF INCREASE OR DECREASE IN ABSOLUTE NUMBERS OF BIRTHS IN GROUPS OF REGISTRATION COUNTIES AS COMPARED WITH NUMBERS IN 1882.

	If births in 1882 = 100, then births in									
	1883.	1884.	1885.	1886.	1887.	Aver- age. 1883-90.	Aver- age. 1891-5.	Aver- age. 1896-00.	Aver- age. 1901-5.	1906.
Glamorgan, &c.	101.24	107.40	109.84	110.97	108.08	113.12	131.97	137.16	150.61	153.80
Durham, &c.	101.32	106.19	101.84	102.94	100.85	102.59	110.32	115.93	125.64	127.07
Metropolitan Counties	101.11	102.74	101.65	103.61	102.71	101.43	104.56	108.13	112.61	112.60
Leicester, &c.	101.77	103.91	102.95	104.04	100.69	98.58	104.75	107.71	111.40	109.57
Stafford, &c.	100.92	102.35	100.20	100.49	97.06	97.12	102.86	107.52	109.42	108.52
Hants, Berks	100.14	100.29	100.93	103.91	103.96	100.43	100.46	101.35	103.90	106.38
Yorkshire	98.91	101.34	98.66	99.13	97.64	97.39	101.10	103.60	104.25	102.80
Lancashire	99.36	100.90	100.35	101.32	99.25	99.08	102.06	103.29	102.41	102.68
Lincoln	99.69	99.82	99.44	97.91	96.12	90.74	90.26	89.54	89.36	92.84
Wilts, Dorset	99.44	101.11	99.30	99.10	97.42	94.83	92.75	89.27	87.41	89.24
Northampton	103.20	103.10	102.94	103.49	100.80	98.15	97.99	96.77	91.31	89.07
Sussex	99.82	99.53	96.98	97.51	94.98	91.84	93.34	91.76	90.42	88.92
Gloucester, Somerset	98.03	98.02	98.06	98.59	96.77	94.85	94.72	91.48	88.39	86.54
Devon	97.35	100.08	97.10	98.75	97.15	95.39	92.84	89.66	86.15	84.89
Norfolk, Suffolk	100.75	101.91	99.65	102.00	99.36	96.14	93.18	89.41	85.47	83.01
Bucks, Oxford	101.60	102.08	99.78	102.75	99.55	96.69	94.34	87.45	85.46	82.72
Salop, Hereford	96.31	99.81	96.64	97.97	94.51	91.98	90.22	87.43	85.04	80.67
Cumberland	101.22	100.32	99.99	98.47	93.61	95.48	92.11	85.68	82.91	80.62
Cornwall	97.73	101.07	96.77	98.83	93.48	92.14	90.36	82.72	76.17	71.82
Denbigh	96.76	95.90	95.24	92.38	92.04	90.45	99.76	101.61	101.91	99.34
Carnarvon	98.18	98.13	98.27	94.93	92.34	88.90	90.61	95.14	94.86	92.85
Carmarthen, &c.	96.82	94.77	96.59	96.14	95.74	91.70	91.56	87.63	86.72	85.89
Montgomery, &c.	96.01	94.60	92.50	93.26	89.14	85.15	80.74	83.13	77.56	71.79
England and Wales	100.19	102.00	100.59	101.67	99.70	98.83	102.12	103.84	105.58	105.18
Number of the above local ratios under 97.5 per cent.)	5	3	7	4	13	16	13	14	14	14

	Age 15-20	Age 20-25
Of whom also, married	25,392	447,885
„ single	1,613,138	1,196,555
„ widowed	91	3,838
Totals	1,638,621	1,648,278
Numbers of working women—		
Married and widowed	3,043	49,164
Single	1,076,381	879,310
Totals	1,079,424	928,474

The largest numbers of the married and widowed workers at age 20-25 were found in:—

CLASS	Number
XVIII.—Textile Fabrics	18,222
XIX.—Dress	9,392
IV.—Domestic Offices or Servants	8,506
XX.—Food, Tobacco, Drink, &c.	2,881
X.—Metals, Machines, &c.	2,112
XIV.—Brick, Cement, Pottery, &c.	1,456
XVII.—Paper, Prints, Books, &c.	1,360

The proportion "unoccupied" at age 15-25 was thus 38·9 per cent. on an average; the figure for urban districts being 36·7 per cent. and that for rural districts 48·2 per cent.

It will be noticed that the figures of the unoccupied considerably exceed those of married women; but in some places, where as few as 10·8 per cent. to 21·5 per cent. of the women were unoccupied, there can be little doubt but that many married women are employed in textile manufactures. On the other hand, we find districts in which nearly two-thirds of the women aged 15-25 are returned as "unoccupied," and these are generally colliery districts and other districts where rude labour is highly paid and the wage earner does not allow his daughters to accept employment.

It is remarkable that although social habits often become diffused over a wider area than that in which they originate, this distinction between cotton spinning places and others strongly marks the several towns in Lancashire for which we have particulars, the percentage unoccupied being in:—

Blackburn	10·8	Manchester	27·8
Burnley	12·1	Salford	27·9
Bury	13·9	Warrington	42·1
Preston	14·4	Liverpool	43·4
Rochdale	16·5	Bootle	48·2
Oldham	18·8	Barrow	53·4
Bolton	18·8	St. Helens	57·2
Wigan	26·7		

The average percentage for all these places was (in 1901) 30·1, and that for the residue of Lancashire urban districts 27·2; but I think the latter figure covers quite as great diversity as the former, since the smaller towns are in many cases either wholly occupied in the cotton manufacture or largely engaged in coal mining.

A similar observation is true of Yorkshire, the ratios there being in:—

Halifax	20·7	Sheffield	45·2
Huddersfield	21·5	Hull	49·6
Bradford	21·5	Rotherham	62·0
Leeds	31·1	Middlesbro'	62·9
York	42·9		

The smaller places average as follows:—

	Per cent.
In the West Riding (partly colliery and partly textile manufacturing towns)	34·7
In the North Riding (partly iron mining districts)	54·3
In the East Riding	46·9

It would be very interesting if we had the like data for every urban district.

The extreme cases are, in the urban districts for which we have data:—

	Per cent.		Per cent.
Rhondda	66·1	Stockton-on-Tees	57·3
Middlesbro'	62·9	St. Helens	57·2
Rotherham	62·0	Sunderland	56·4
South Shields	60·0	Barrow-in-Furness	53·4
Merthyr Tydfil	60·0	Grimsby	53·4
West Hartlepool	58·4	Swansea	51·1
Tynemouth	58·0	Newcastle	50·2

and at the other end of the scale:—

	Per cent.		Per cent.
Blackburn	10·8	Halifax	20·7
Burnley	12·1	Stockport	20·9
Bury	13·9	Bradford	21·5
Preston	14·4	Huddersfield	21·5
Rochdale	16·5	Nottingham	22·5
Leicester	17·3	Northampton	25·2
Oldham	18·8	Norwich	26·6
Bolton	18·8	Wigan	26·7

The groups of smaller urban districts which rank highest are in—

	Per cent.		Per cent.
Durham	63·1	Glamorgan	57·5
Northumberland	62·4	York, North Riding	54·3
Monmouth	61·9		

In aggregates of rural districts there is less diversity, as the lowest figures are:—

Lancashire	32·6 per cent. unoccupied
Leicester	34·0 „ „

whilst the highest ratios are noticeable where rude labour, such as mining or brick-making, is conspicuous, viz.:—

	Per cent.		Per cent.
Durham	69·8	Monmouth	54·6
Huntingdon	61·5	Glamorgan	54·3
Cornwall	55·4	Derby	53·0

the average for rural districts being 48·2 per cent., as already stated.

The following Table, for three important counties, is interesting:—

FEMALES AGED 20-25 IN 1901.

	Lancashire. Workers.				Yorkshire. Workers.				London. Workers.			
	Single.	Married and widowed.	Married. Per cent.		Single.	Married and widowed.	Married. Per cent.		Single.	Married and widowed.	Married. Per cent.	
XVIII. Textile fabrics . . .	59,034	10,716	16.7		31,594	3,318	6.1		6,088	219	.8	
XIX. Dress	19,114	1,116	1.7		15,312	865	1.6		30,630	2,151	3.1	
IV. Domestics	84,104	971	1.5		29,497	534	1.0		71,832	2,791	4.0	
XX. Food, Drink, &c.	8,370	577	.9		4,177	264	.5		12,088	692	1.0	
X. Metal, Machines, &c.	701	75	.1		1,921	273	.5		847	87	.1	
XIV. Brick, Pottery, &c.	374	11	..		198	17	..		194	16	..	
XVII. Paper, Books, &c.	2,843	170	.3		1,375	42	.1		7,162	684	1.0	
Total workers	140,070	14,469	22.5		94,929	5,658	10.5		153,847	8,023	11.5	
Totals	173,705	64,179	..		130,273	54,056	..		190,630	69,936	..	

At the next age 25-45 there are similar discrepancies, the towns where textile goods are manufactured showing the largest proportions of married women engaged in industries, and the mining districts, and such places as Rotherham and Middlesbro' being at the opposite extreme. The lowest ratios of workers were met with in the following towns:—

Rhondda	91.4 per cent. unoccupied.
Rotherham	88.2 " "
Monmouth (small towns)	88.2 " "
Durham (small towns)	87.6 " "
Glamorgan (small towns)	87.3 " "
Merthyr Tydfil	87.2 " "
Northumberland (small towns)	87.1 " "
Middlesbro'	87.0 " "
St. Helens	86.7 " "
West Hartlepool	86.7 " "
South Shields	86.2 " "
Barrow-in-Furness	86.0 " "
Stockton-on-Tees	84.9 " "
Burton-on-Trent	84.7 " "

and the largest proportions engaged in industries were found in—

Blackburn	41.5 per cent. unoccupied.	Leicester	59.7 per cent. unoccupied.
Burnley	48.1 " "	Stockport	59.8 " "
Preston	49.7 " "	Nottingham	61.8 " "
Bury	52.9 " "	Bradford	62.1 " "
Bournemouth	57.3 " "	Oldham	62.2 " "
Rochdale	57.8 " "	Hastings	62.2 " "
Bath	57.9 " "	Gloucester	62.8 " "
Bedford (small towns)	59.6 " "	(small towns) } 62.8 " "	
		Worcester	63.3 " "

The figures for some of the largest towns were:—

Leeds	73.0 per cent. unoccupied.
Birmingham	71.8 " "
Bristol	68.9 " "
London	68.8 " "
Manchester	68.3 " "

and the national average in urban districts was 71.4 per cent., but in rural districts 78.8 per cent. In the county aggregates of rural districts we notice—

Lancashire	70.7 per cent. unoccupied.
Durham	90.3 " "

It may be added that the ratio of the "unoccupied" for the County of London was 66.3 per cent., and that 73,925 married or widowed women were employed there, mostly as domestics or dressmakers, or 14.3 per cent. of the total number of such women aged 25-45. Apparently the greatest proportions of married women "occupied" in some industry were found in Shoreditch, Bethnal Green and Finsbury, but others were met with in Southwark, Bermondsey, Stepney, &c., and also in the rather unnatural populations of the City and Holborn.

Some writers have endeavoured to persuade their readers that a large and increasing number of people do not work in any way; but if we take males aged 25-45 the facts were in 1901:—

	Age 25-35	Age 35-45
Numbers of men in urban districts	1,975,588	1,496,711
" " rural districts	510,366	435,232
Totals	2,485,954	1,931,943
Of whom "unoccupied" in urban districts	30,394	28,864
" " rural districts	12,893	13,895
Totals	43,287	42,759

The following details of the "unoccupied" are furnished:—

Retired from business	7,214	13,345
Pensioners	357	1,440
Living on own means	7,822	11,053
Others	27,894	16,921
Totals	43,287	42,759

The percentage of the "unoccupied" on population aged 25-45 was 1.95, surely no large proportion, though to be sure every one who is temporarily unemployed is put down as a worker, and I do not know how many inmates of hospitals, prisons, workhouses and asylums are treated as "occupied."

The range of figures in administrative counties varied as follows. The highest ratios were:—

Administrative County.	Per cent. unoccupied.		Administrative County.	Per cent. unoccupied.	
	Urban Districts.	Rural Districts.		Urban Districts.	Rural Districts.
Surrey	3.5	6.3	Monmouth . . . . .	.9	4.9
Herts	3.6	5.2	Lancaster	1.3	4.2
Berks	1.8	4.3	York, East Riding	1.2	3.5
Kent	2.8	3.6	" North Riding	1.4	3.5
Devon	2.9	3.6	Wilts	1.2	3.4
Bedford	1.9	3.6	Oxford	2.1	3.4
Sussex	3.6	3.4	Hants	2.9	2.9

and in these other more remote quarters :—

Denbigh.	.	.	.	.	.	4·8	urban	1·6	rural
Carmarthen	.	.	.	.	.	4·2	„	1·6	„
Cardigan	.	.	.	.	.	3·9	„	3·1	„
Cornwall	.	.	.	.	.	3·8	„	2·3	„

and seem to me to indicate some want of uniformity in the methods of the local enumerators. The lowest were :—

Durham.	.	.	.	.	.	0·8	urban	2·0	rural
Monmouth	.	.	.	.	.	0·9	„	4·9	„
Glamorgan	.	.	.	.	.	1·0	„	3·0	„
Huntingdon	.	.	.	.	.	1·1	„	1·4	„
Brecon	.	.	.	.	.	1·1	„	1·6	„
Warwick	.	.	.	.	.	1·1	„	2·5	„

Where we meet with Monmouth again, the ratios in the rural parts and in the towns being remarkably contrasted.

Probably the only safe conclusion to be derived from these figures is that the “unoccupied” men at this time of life are more frequently found in rural districts than in towns and are nowhere numerous.

APPENDIX A.

AS TO THE CLASSIFICATION (BY APPORTIONMENT)
OF DEATHS UNDER YEARS OF BIRTH, AND
AS TO CERTAIN ARBITRARY TRANSFERS OF
POPULATION, &c., IN RESPECT OF SUPPOSED
INACCURACIES IN THE RETURNS OF AGES.