

Nativity in Dublin in the Year 1955

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Certain modifications were made, in 1955, in the system of recording births in this country, with a view to extending the amount of statistical information available and bringing the Irish statistics on the subject into line with United Nations recommendations. Although the particulars to be entered in the Register of Births remain unchanged, the Central Statistics Office now receives from the District Registrars a form in respect of each birth, containing such additional information as date of birth of mother, date of marriage, and number of previous children. Thus it became possible for the first time in 1955 to prepare, for the whole country, classifications of births by such factors as age of mother at maternity, duration of marriage and order of birth and these are being published in *The Report on Vital Statistics for the year 1955*. The classifications proved of the greatest interest and revealed a strikingly high level of fertility by comparison with England, Wales and Scotland. However, it is not proposed to consider in the present paper the statistics for the whole country, but instead to pursue a more limited objective and to confine attention to those births which occurred in the City of Dublin. In 1943 and 1948 Mr. Stanley Lyon, then Director of the Statistics Branch of the Department of Industry and Commerce, read papers before this Society on the subject of births in Dublin in the years 1941, 1942 and 1945 based on material supplied in notifications of births to the City Medical Officer, and my main purpose this evening is to bring the material presented by Mr. Lyon up to the year 1955.

It should be explained that, although prior to 1955 the system of legal registration of births did not make provision for the furnishing of particulars of age of mother or parity of birth, nevertheless such information was (and still is) furnished to City or County Medical Officers, usually by the medical attendant present at the birth, in accordance with the provisions of the Notification of Births Acts, 1907 and 1915. The particulars to be furnished in each area were, to a large extent, left to the discretion of the individual District Medical Officers with the result that variations in procedure between the different areas rendered the data collected of little value for the compilation of statistics on a national scale. The Notification of Births Acts 1907 and 1915 were not intended or designed for the compilation of statistics, their primary purpose being to enable the local authorities to offer, where appropriate, the post-natal maternity services available. Their utility has, however, greatly diminished with the extension of maternity services under the Health Act, 1953 to cover the great majority of births in this country. The principal difference between the two sets of figures, namely, the notifications to District Medical Officers and birth registrations, is that the former include stillbirths whereas the latter do not. Very recently an effort has been made to

compile statistics of stillbirths on a national basis but as yet no published results are available. It is evident that a fair amount of duplication of effort exists in the matter of birth notification and registration arising from the fact that the existing administrative edifice was not all constructed at the one time but has evolved over many years with periodic additions to meet particular circumstances. To carry out the structural alterations necessary to adapt the edifice fully to present day needs and to remove the various small but irritating statistical anomalies would involve legislation and a certain amount of re-organisation, and is unlikely to take place in the immediate future.

In preparing the national statistics of births it is customary to work in terms of date of registration, although registration may not take place until several weeks after a birth has occurred. The statutory period allowed for the registration of a birth is forty-two days, although in the great majority of cases the interval is considerably less. To conform with the procedure followed by Mr. Lyon, births are here classified by date of occurrence. Registration and occurrence figures in respect of births in Dublin County Borough in 1955 and 1956 compare as follows :—

Total births registered in 1955	=	17,059
of which :—		
Number occurring in	1954	= 641
“ “ “	1955	= 16,418
Total births registered in	1956	= 17,201
of which :—		
Number occurring in	1954	= 1
“ “ “	1955	= 517
“ “ “	1956	= 16,683

Thus our attention is confined to the 16,418 plus 517 equals 16,935 births occurring in 1955. Before launching on a detailed comparison with the figures for ten years previously some of the principal factors affecting this comparison might be mentioned. In the first place the figure of 16,935 relates only to live births occurring in 1955, whereas the earlier paper related to live and stillbirths (numbering 15,437 and 511 respectively in 1945). Under the recently introduced scheme for recording stillbirths on a national basis, slightly over 200 were notified for Dublin County Borough in the first half of 1957, so it appears that, had stillbirths been included with the 1955 figures, they would have been increased by between four and five hundred, say by three per cent. Another important factor affecting the comparison is the changing population which might be expected to avail of the maternity services in Dublin City. The population of Dublin City and County rose from approximately 625,000 in 1945 to 700,000 in 1955 while in addition there are indications that the proportion of the total who were young married persons increased. It appears, therefore, that increases in numbers of births are largely, if not entirely, due to increases in the relevant populations. While it would be of vastly greater interest to examine trends in fertility over the ten year period, this is rendered impossible by the absence of the population

figures on which such an investigation could be based; changes in the distribution of population by age and conjugal condition since the 1951 Census are believed to be too great to render the results of that census of value, while no such classification is available from the 1956 Census.

Month of occurrence

The variation in the number of births from month to month is examined in the following table in which the average daily number of births in each month which occurred in Dublin City is calculated. It is, of course, necessary to work in terms of average numbers of births per day since the various months contain different numbers of days.

TABLE I.—DAILY AVERAGE NUMBER OF BIRTHS EACH MONTH, 1945 AND 1955

Month	Daily average number		Ratio of daily average to that for year	
	1945	1955	1945	1955
January	39.3	42.8	.899	.922
February	40.9	47.1	.936	1.015
March	44.8	49.2	1.025	1.060
April	43.6	52.3	.998	1.127
May	47.2	50.4	1.080	1.086
June	47.2	52.8	1.080	1.138
July	46.6	49.1	1.066	1.058
August	43.0	45.5	.984	.981
September	47.7	46.6	1.092	1.004
October	44.4	43.3	1.016	.933
November	39.7	40.0	.908	.862
December	30.6	37.9	.700	.817
Year	43.7	46.4	1.000	1.000

The seasonal pattern of births is most easily seen from the last two columns of this table in which the ratio of the daily average each month to that for the year is shown. The patterns in 1945 and 1955 were fairly similar, the smallest numbers of births occurring in November, December and January and the largest daily numbers in the spring and summer months. It might be mentioned that a similar calculation for births occurring in England and Wales in 1955 gives a pattern very similar to that for Dublin and the minor rise which, as may be seen from the table, occurred in the month of September in both 1945 and 1955 is a feature of the births in England and Wales also. To a large extent this variation in the numbers of births is accounted for by the seasonal pattern of marriages. The numbers of marriages registered in Dublin County Borough in the four quarters of 1954 and the first quarter of 1955 were as follows:—

1954	First quarter	..	890
	Second quarter	..	1,150
	Third quarter	..	1,945
	Fourth quarter	..	975
1955	First quarter	..	855

These numbers do not refer exclusively to marriages of persons normally resident in the County Borough, but then neither do the

births and it is fair to suppose that in a large proportion of those cases where people from outside the city come there to be married the wives also come to the city for their confinements. The daily average numbers of legitimate first births and births of higher orders are given in Table II.

TABLE II.—DAILY AVERAGE NUMBER OF FIRST BIRTHS AND OTHER BIRTHS EACH MONTH

Month	First births		Second, third, etc., births	
	Daily average number	Ratio to average for year	Daily average number	Ratio to average for year
January	8.3	.716	33.9	1.000
February	10.2	.879	35.9	1.059
March	11.9	1.026	36.3	1.071
April	13.9	1.198	37.7	1.112
May	13.9	1.198	35.4	1.044
June	14.8	1.276	36.6	1.080
July	13.1	1.129	34.9	1.029
August	12.9	1.112	31.8	.938
September .. .	12.3	1.060	33.3	.982
October	9.4	.810	33.1	.976
November .. .	9.8	.845	29.6	.873
December .. .	9.0	.776	23.0	.826
Total	11.6	1.000	33.9	1.000

It is evident that most of the seasonality is accounted for by first births alone, while the higher proportion of first births in the summer months may be presumed to arise largely from the large number of marriages in the third quarter of the year. Probably the seasonality remaining in the final column of the table is also largely due to the varying numbers of marriages, and that by excluding second, third etc. births the seasonality would be still further reduced. At all events if there is, in fact, any seasonal variation in fertility it is too slight to be detected by the statistics at present available.

Age at maternity and order of birth

Of the total of 16,935 births in Dublin in 1955, 326 or 1.9% were illegitimate. This denotes a considerable reduction since 1945 in which year 613 out of a total of 15,948 births, or 3.8% were illegitimate. Deferring, for the moment, consideration of the illegitimate births, the next table shows birth classified by age of mother at maternity and parity. The term "parity" as used in statistics dealing with births has the same meaning as "birth order," namely whether a birth is that of a first, second, third etc. child. In the case of multiple births each child is counted as an individual birth so that, if a fifth pregnancy produced twins the children would be classified as a fifth and sixth child in parity order.

TABLE III.—LEGITIMATE BIRTHS BY AGE OF MOTHER AND BY ORDER OF BIRTH

Order of Birth	Year	Total	Age at maternity							Not stated
			Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	
First child	1945	4,036	180	1,360	1,445	722	261	63	5	—
	1955	4,249	163	1,281	1,655	743	295	76	5	31
Second child	1945	3,209	30	744	1,177	852	324	79	3	—
	1955	3,494	37	652	1,307	990	377	106	9	16
Third child	1945	2,219	2	282	747	742	373	71	2	—
	1955	2,654	7	258	839	925	486	122	2	15
Fourth child	1945	1,636	—	112	465	626	342	85	6	—
	1955	1,979	4	127	514	724	466	135	2	7
Fifth child	1945	1,169	—	35	279	452	315	84	4	—
	1955	1,289	—	42	288	460	351	132	6	10
Sixth child	1945	880	—	8	177	361	259	71	4	—
	1955	904	—	16	138	331	302	104	8	5
Seventh child	1945	622	—	3	77	247	210	84	1	—
	1955	622	—	2	75	233	198	101	10	3
Eighth child	1945	468	—	2	33	159	194	74	6	—
	1955	418	—	2	36	130	154	91	4	1
Ninth child	1945	326	—	—	15	97	151	59	4	—
	1955	290	—	—	11	93	117	64	3	2
Tenth child and over...	1945	770	—	—	7	145	331	260	27	—
	1955	492	—	—	7	73	207	189	12	4
Number of children not stated	1945	218	1	8	14	37	17	7	1	133
	1955	218	1	8	14	37	17	7	1	133
Total	1945	15,335	212	2,546	4,422	4,403	2,760	930	62	—
	1955	16,009	212	2,388	4,884	4,739	2,970	1,127	62	227

In practically all cases the particulars of age and number of previous children were furnished in the Notification of Birth Returns in 1945, and where omissions occurred it was found possible from the context to fill in the blanks with approximate figures. This was not so in the case of the statistical returns in 1955: if age and number of previous children were not given no information on the births was available other than that contained in the Registers. Consequently in this and in many of the following tables, "not stated" headings were required for the 1955 figures. Apart from differences due simply to the greater number of births in the later year the differences in the age by birth order pattern between 1945 and 1955 are not very pronounced. In the case of first, second and third births the numbers to mothers aged under 25 years were somewhat greater in 1945, while for parities above the fifth the numbers of births in 1945 tended to exceed those in 1955 in each age group. This is very marked where

the birth was that of the tenth child or over, and would suggest that the number of women with large families has tended to decrease in the ten years. The fact that the figures for 1945 include stillbirths while those for 1955 do not, make it impossible to draw any definite conclusions. The age distributions for first births and for all births are worked out in Table IV.

TABLE IV.—PERCENTAGE DISTRIBUTION OF LEGITIMATE BIRTHS BY AGE OF MOTHER AT MATERNITY

	Year	Age at Maternity							Total	Average age at maternity
		Under 20	20-24	25-29	30-34	35-39	40-44	45 and over		
First births ...	1945	4.4	33.7	35.8	17.9	6.5	1.6	0.1	100	27.2
	1955	3.9	30.4	39.2	17.6	7.0	1.8	0.1	100	27.5
All births ...	1945	1.4	16.6	28.8	38.7	18.0	6.1	0.4	100	30.8
	1955	1.3	14.6	29.8	28.9	18.1	6.9	0.4	100	31.0

The age distribution for first births shows a higher proportion at the younger ages in 1945 than in 1955, from which it would appear that there has been a slight rise in the average age at marriage over the ten years. This is not, however, established conclusively since a relative increase in the fertility at the higher ages would give the same effect. It is unfortunate that no more precise information on this subject is available and indeed it has been one of the most serious deficiencies in Irish demographic statistics that no particulars of age at marriage could be compiled from registration records. An investigation of age at marriage was carried out at the 1946 Census of Population in respect of those marriages which had occurred in the preceding twelve months and where the husband and wife were enumerated on the same census schedule. At that time the average ages at marriage for the whole country were found to be 33.1 years for males and 28.0 years for females. In the war and immediate post-war years the marriage rate was at an exceptionally high level and it is quite possible that the subsequent decline was correlated with a rise in the average age. I might mention that new marriage registers were introduced in 1957 on which date of birth of bride and groom are asked for specifically and we hope to prepare, in due course, a statistical analysis of the information received.

Some international comparisons of births according to age at maternity are made in the next table, the choice of countries for inclusion being limited by the difficulty of getting up-to-date figures on the subject.

The proportion of mothers at the younger ages is slightly higher in the case of births in Dublin County Borough than in the State as a whole, but by comparison with any of the countries shown, it is evident that the proportion of births for the later ages of mother is exceptionally high. This position arises due to the facts that (a) women in Ireland marry at a later age than in other countries and (b) married women in Ireland have on average a larger number of children, and so continue bearing children for a greater number of

TABLE V.—PERCENTAGE DISTRIBUTION OF LEGITIMATE BIRTHS BY AGE OF MOTHER AT MATERNITY—INTERNATIONAL COMPARISONS

Country	Year	Age at Maternity							Total	Average age at Maternity
		Under 20	20-24	25-29	30-34	35-39	40-44	45 % over		
Dublin City ...	1955	1.3	14.6	29.8	28.9	18.1	6.9	0.4	100—	31.0
Ireland* ...	1955	1.4	12.6	25.9	29.8	21.3	8.4	0.6	100—	31.7
England and Wales ...	1955	4.3	28.8	32.3	21.4	9.9	3.1	0.2	100—	28.2
Scotland ...	1955	4.1	28.9	32.2	21.2	10.3	3.1	0.2	100—	28.2
New Zealand ...	1955	3.7	27.6	33.2	21.8	10.5	3.0	0.2	100—	28.4
Norway ...	1954	3.0	22.1	29.2	25.5	14.2	5.5	0.5	100—	29.7
Denmark ...	1955	6.2	30.8	30.3	20.1	9.4	3.0	0.2	100—	27.8
Italy ...	1954	1.7	18.6	32.5	27.0	12.1	7.2	0.9	100—	30.2

* Exclusive of the Six Counties

years. The average age at maternity is worked out in the last column of the table and it will be noted that of the countries abroad only in the case of Italy does the average age exceed 30 years whereas the average for Dublin City is 31.0 years and for the whole state 31.7 years. Denmark shows the greatest contrast with this country : in the case of 37% of the births were the mothers' ages below twenty five years whereas in Ireland only 14% are below this age. The later age at maternity must be expected to have an adverse effect on both maternal and infant mortality in this country, since both tend to increase with increasing age of mother. The number of deaths of women due to complications of pregnancy and childbirth in this country in 1955 was 70, representing a mortality rate of 1.14 per 1,000 births. The corresponding maternal mortality rates in the countries included in Table V in a recent year (1954 or 1955) were as follows:—England and Wales, 0.66; Scotland, 0.46; New Zealand, 0.52; Norway, 0.62; Denmark, 0.46; and Italy, 1.30 this being the only rate above that for Ireland. As regards infant and neo-natal mortality also the Irish rates are well above those for any of the countries shown in the table, with the exception of Italy. One is lead to surmise that, no matter what improvements are made in public health maternity services, this country cannot quite attain to the low infant mortality rate in, say, Denmark on account of the higher average age at maternity.

The remark, made earlier, that married women in Ireland have, on average, a larger number of children than in the other countries with which comparisons are being made is substantiated by the next table.

The proportion of first order births, both in Dublin City and in the whole State is much lower than in any of the other countries shown, while the proportion of fifth and higher order births is considerably greater. The contrast is greatest between this country and England and Wales; thus only 21% of all the births in Ireland are first births, compared with almost 40% in England and Wales. In the case of only 0.4% of births in England and Wales was the number of previous children as high as nine, whereas in this country the figure was 3.9%.

The calculation of average numbers of previous children would result in fractional terms and so might appear rather absurd. However the following statement conveys the result of such a calculation equally well :—If a random sample of 100 births were taken in each of the regions considered, the numbers of previous children to the mothers concerned would have been 236 in Dublin, 276 in Ireland, 123 in England and Wales, 144 in Scotland, 157 in New Zealand, 123 in Norway, 149 in Denmark, and 165 in Italy.

TABLE VI.—PERCENTAGE DISTRIBUTION OF LEGITIMATE BIRTHS BY ORDER OF BIRTH—INTERNATIONAL COMPARISONS

Country	Year	Order of Birth							Total
		1st	2nd	3rd	4th	5th	6th— 9th	10th and over	
Dublin	1955	25.9	21.3	16.3	12.1	7.9	13.6	3.0	100.0
Ireland	1955	21.0	18.9	15.9	12.9	9.8	17.6	3.9	100.0
England and Wales	1955	39.6	29.9	15.3	7.4	3.7	3.7	0.4	100.0
Scotland	1955	36.3	27.7	16.4	8.7	4.8	5.4	0.7	100.0
New Zealand	1955	30.0	27.1	20.6	11.4	5.6	4.9	0.4	100.0
Norway	1954	37.4	31.0	16.8	7.9	3.6	3.1	0.2	100.0
Denmark							5.2		
Italy	1955	30.6	30.7	18.9	9.9	4.7	5.2		100.0
	1954	35.0	26.4	15.2	8.9	5.4	8.0	1.1	100.0

On the statistical form for recording particulars of births the numbers of previous children still living and born alive but now dead are asked for separately. The main reason for doing this is to counteract a tendency on the part of informants to forget about the children who have died when asked simply to state the total number of previous children. A cross-classification of births by number of previous children still living and number born alive but now dead is made in Table VII and reveals certain interesting points.

Disregarding the 218 cases in which the number of previous children was not stated, it appears that 2,176 out of a total of 16,391 women, namely 13%, had at least one previous child who died. The total number of previous children born to the 16,391 women was 38,700 and of these 3,200 or 8.3% had since died. From Table III it will be seen that the total number of births of the eighth or higher order was 1,200 while from the present table it appears that in the case of 676 of these births at least one of the previous children had died.

Duration of marriage

In Table VIII legitimate births are shown according to age of mother at maternity and duration of marriage. Since number of previous children is closely correlated with durations of marriage a detailed discussion of the classification would tend to cover the same ground as the previous sections. Compared with 1945 there has been little change in distribution of births according to duration of marriage. In 1945 12.4% of all births were at duration under one

TABLE VII.—COMPARISONS OF NUMBERS OF PREVIOUS CHILDREN LIVING AND DEAD

Number still living	Number born alive but now dead							Total
	None	One	Two	Three	Four	Five and over	Not stated	
None	4,249	141	6	2	2	—	—	4,400
One ..	3,353	210	47	3	—	2	—	3,615
Two ..	2,438	270	49	9	6	1	—	2,773
Three ..	1,660	245	50	15	3	4	—	1,977
Four ..	990	213	52	15	15	4	—	1,289
Five ..	632	178	50	16	5	3	—	884
Six ..	369	114	44	11	6	11	—	555
Seven ..	235	89	34	10	10	4	—	382
Eight ..	122	43	29	7	1	5	—	207
Nine ..	70	30	13	8	2	5	—	128
Ten and over	97	50	15	10	6	3	—	181
Not stated	—	—	—	—	—	—	218	218
Total	14,215	1,583	389	106	56	42	218	16,609

year compared with 13.0% in 1955. Similarly 22.1% were at durations over ten years in 1945 compared with 21.7% in 1955.

TABLE VIII.—BIRTHS CLASSIFIED BY AGE AT MATERNITY AND DURATION OF MARRIAGE

Duration of Marriage	Age at Maternity								Total 1955	Total 1945
	Under 20yrs.	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 & over	Not stated		
Under 1 year ...	130	796	827	290	74	15	—	7	2,139	1,894
1 and under 2 years	53	587	783	325	113	23	1	8	1,893	1,889
2 " " 3 "	20	412	688	353	136	23	1	11	1,644	1,517
3 " " 4 "	4	264	594	439	136	34	4	7	1,482	1,262
4 " " 5 "	3	159	527	420	163	39	—	9	1,320	1,086
5 " " 10 "	—	161	1,329	1,862	899	190	8	24	4,473	4,276
10 " " 15 "	—	—	126	949	942	296	12	14	2,339	3,388
15 " " 20 "	—	—	—	94	447	324	13	1	879	
20 years and over	—	—	—	—	52	180	23	1	256	
Not stated ...	2	9	10	7	8	3	—	145	184	—
Total ...	212	2,388	4,884	4,739	2,970	1,127	62	227	16,609	15,312

Of rather greater interest are the results obtained by classifying legitimate first births by duration of marriage, as has been done in Table IX.

In 1955 almost half of all legitimate first births occurred within the first year of marriage while a third took place within the second year. The number of first births to marriages of over ten years duration was only 38, that is, less than 1% of the total. It might appear from these figures that if a couple have been childless for

ten years the probability of their now having a child is very small, but this does not necessarily follow since the numbers in this category in the population might also be very small.

TABLE IX.—FIRST BIRTHS CLASSIFIED BY AGE AT MATERNITY AND DURATION OF MARRIAGE

Duration of Marriage	Age at Maternity							Total 1955	Total 1945	
	Under 20yrs.	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 & over			Not stated
Under 6 months ...	59	121	42	20	4	2	—	2	250	273
6 and under 7 months	10	24	21	4	2	—	—	1	62	
7 " " 8 "	5	27	24	9	3	—	—	—	68	
8 " " 9 "	6	76	54	18	7	—	—	2	163	
9 " " 12 "	48	506	640	212	47	8	—	2	1,463	
Under 1 year ...	128	754	781	263	63	10	—	7	2,006	1,750
1 and under 2 years	30	422	501	241	94	20	—	6	1,404	1,484
2 " " 3 "	4	76	153	99	46	10	—	4	392	375
3 " " 4 "	—	16	52	53	25	10	2	2	160	234
4 " " 5 "	—	8	27	24	15	3	—	—	77	
5 " " 10 "	—	4	41	59	34	16	2	3	159	
10 " " 15 "	—	—	6	4	14	3	1	1	29	
15 years and over ...	—	—	—	—	4	4	—	—	8	
Not stated ...	1	1	4	—	—	—	—	8	14	163
Total ...	163	1,281	1,655	743	295	76	5	31	4,249	4,036

The Registrar General for England and Wales, in his annual commentary on vital statistics, tends to refer to all births occurring at durations of marriage under nine months as "pre-maritally conceived," although it is fair to suppose that a substantial proportion of premature births are included. Following this procedure for purposes of comparison it appears that in 1955 about 13% of all first births occurred at durations of marriage under nine months as against 15% in 1945. The proportion in 1955 was highest at the younger ages, being 49% at ages under 20 years, 19% in the age group 20 to 24 years and 9% in the age group 25 to 29 years. An international comparison with some of the countries in earlier tables gives the following results for proportions of first births at duration of marriage under nine months:—Dublin City 13%; Ireland 14%; England and Wales 20%; Scotland 20%; New Zealand 23%; Denmark 44%.

Social group

A classification which has been widely used in recent years in Irish census of population statistics is that by Social Group. This classification, when applied to a person at work, is determined primarily by his occupation although his status (that is whether he is an employer, an own-account worker or an employee) is also taken into consideration. In the case of an economically dependent person, for example a housewife, the appropriate social group is considered to be that of her husband. When it is desired to divide the population

into a small number of classes on the basis of economic characteristics the social group concept gives results superior to a division by the main occupational groups, since the composition of the various classes is more homogeneous. For census purposes eleven social groups were chosen and numerous striking differences were revealed between these sectors as regards demographic factors such as age distribution, proportions married, age at marriage, dependency, etc. The assignment of births to social groups was carried out on the basis of occupation of father, and a somewhat modified version of the census of population list was adopted for their classification. Unfortunately the changes in population since the 1951 Census, the latest for which particulars of social groups are available, are believed to be too great to allow the birth classification now presented to be evaluated against a background of census results, and we must see what information may be derived from an examination of the birth statistics alone. The manner in which occupations are allocated to their appropriate social groups is shown in the list given below. Only the principal occupations out of the total of some 400 listed in the census reports are shown. However, these are sufficient to illustrate the general composition of each group.

- I. FARMERS, FARMERS' RELATIVES ASSISTING AND FARM MANAGERS
- II. OTHER AGRICULTURAL OCCUPATIONS AND FISHERMEN
Agricultural labourers; Gardeners, Nurserymen; Foresters;
Turf workers; Fishermen.
- III. HIGHER PROFESSIONAL
Judges; Barristers; Solicitors; Doctors; Dentists; Veterinary
surgeons; Civil and mechanical engineers; Surveyors; Account-
ants.
- IV. LOWER PROFESSIONAL
Teachers; Articled clerks and other professional students;
Authors; Editors; Journalists; Librarians; Actors; Enter-
tainers; Musicians.
- V. EMPLOYERS, MANAGERS AND SHOPKEEPERS
Bus, car and coach hire proprietors; Haulage and cartage con-
tractors; Garage proprietors and managers; Ship owners,
managers, brokers, agents, marine superintendents; Proprietors,
managing directors and managers in trading and in wholesale or
retail business; Publicans; Money lenders, pawnbrokers;
Proprietors and managers of hotels and restaurants; Lodging
and boarding house keepers; Heads or managers of commercial
or industrial office departments; Employers and managers in
manufacturing industries.
- VI. SALARIED EMPLOYEES
Station masters, yard masters, passenger and goods agents and
railway officials other than clerks; Harbour masters; Ships
navigating officers, pilots and radio officers; Aircraft pilots,
navigators, radio operators, engineers; Brokers, agents, factors;

Commercial travellers ; Bankers, bank managers ; Stock brokers ; Insurance managers, underwriters and brokers ; Auctioneers, appraisers, estate agents and valuers ; Civic guards above rank of sergeant ; Army officers ; Secretaries and registrars of companies, institutions and charities.

VII. OTHER " WHITE COLLAR " WORKERS

Civil service and local authority clerks ; Bank clerks ; Costing, estimating and accounting clerks ; Draughtsmen ; Typists ; Civic guard, sergeants and lower ranks ; Prison warders ; Insurance agents and canvassers ; Salesmen and shop assistants.

VIII. NON-MANUAL WAGE EARNERS

Railway guards ; Signalmen ; Ticket collectors and examiners ; Porters ; Drivers of buses and other passenger vehicles ; Drivers of goods vehicles ; Bus conductors ; Purser and stewards ; Radio and telephone operators ; Barbers and hairdressers ; Waiters.

IX. SKILLED MANUAL WAGE EARNERS

Blacksmiths ; Sheet metal workers, tinsmiths ; Boiler makers, platers, shipwrights ; Precision fitters, toolmakers, machine tool fitters ; Machine erectors, millwrights, maintenance engineers ; Fitters, fitter-assemblers ; Cycle makers, fitters, mechanics ; Motor and motor cycle mechanics ; Plumbers ; Radio mechanics ; Electrical fitters ; Electricians ; Weavers ; Hosiery frame tenters and knitters ; Boot and shoe makers and repairers ; Saddlers, harness makers ; Tailors ; Dressmakers ; Upholsterers ; Grain millers ; Bakers, pastry cooks, biscuit makers ; Sugar confectionery makers ; Carpenters ; Cabinet makers ; Coach-builders ; Woodcutting machinists ; French polishers ; Paper-board box makers ; Compositors, monotype or linotype operators ; Letterpress or litho printing machine minders and setters ; Dental mechanics ; Bricklayers ; Plasterers ; Masons, stone cutters ; Platelayers ; Painters, decorators ; Locomotive engine drivers ; Crane drivers ; Furniture packers ; Chimney sweeps.

X. SEMI-SKILLED MANUAL WAGE EARNERS

Metal finishers ; Plumbers', fitters', millwrights', and mechanics' labourers ; Machinists and pressers (garment making) ; Sack makers ; Maltsters ; Cigarette making and packing machine operators ; Packing case makers ; Letterpress or litho printing machine assistants ; Builders', bricklayers', plasters' and masons' labourers ; Paint sprayers and aerographers ; Locomotive engine firemen ; Dock labourers ; Postmen, post office sorters, post office assistants ; Messengers, porters, Charwomen ; Laundry workers ; Boiler firemen and stokers.

XI. UNSKILLED MANUAL WAGE EARNERS

Contractors' labourers, road workers, navvies ; Labourers and other unskilled workers.

In Table X the legitimate births which occurred in Dublin in 1955

are classified according to social group. The percentage distribution of the births in each group according to mother's age at maternity and the average age at maternity are also shown.

TABLE X.—LEGITIMATE BIRTHS BY SOCIAL GROUP AND AGE AT MATERNITY—NUMBER AND PERCENTAGE DISTRIBUTION

Social Group (based on father's occupation)	No. of Births	Age at Maternity							Total	Average Age
		Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 and over		
I Farmers, relatives assisting and farm managers	613	0.7	8.4	22.4	29.9	26.3	11.9	0.7	100.0	33.1
II Farm labourers	395	1.5	17.3	25.4	29.0	19.9	6.4	0.5	100.0	31.0
III Higher pro- fessionals ...	815	0.4	7.3	35.2	33.7	18.2	5.0	0.2	100.0	31.4
IV Lower pro- fessionals ...	382	0.9	12.6	29.6	29.5	19.4	7.1	0.9	100.0	31.4
V Employers, man- agers, shop- keepers ...	1,103	0.5	8.2	29.8	31.6	21.3	8.1	0.5	100.0	32.1
VI Salaried employees ...	711	0.4	10.3	31.0	32.2	20.1	5.7	0.3	100.0	31.5
VII Other "white collar" workers	2,170	0.9	11.2	29.3	31.8	19.6	6.8	0.4	100.0	31.5
VIII Non-manual wage earners	2,263	1.6	15.7	29.7	28.1	17.2	7.4	0.3	100.0	30.9
IX Skilled manual wage earners	3,443	1.3	16.0	30.1	27.8	18.2	6.3	0.3	100.0	30.8
X Semi-skilled manual wage earners ...	2,620	1.8	18.3	30.9	27.4	15.0	6.2	0.4	100.0	30.3
XI Unskilled manual wage earners	1,963	2.0	18.6	30.0	25.9	15.8	7.3	0.4	100.0	30.4
Not stated ...	181									
Total ...	16,609	1.3	14.6	29.8	28.9	18.1	6.9	0.4	100.0	31.0

Although all the births occurred in the City of Dublin, about 1,000 or 6% are from the agricultural community, most of whom live outside the city. Apart from the agricultural groups the table shows a fairly sharp distinction between the "white collar" class (groups III to VII) and the "wage earner" class (groups VIII to IX). The percentage of mothers in the older age groups is appreciably higher among the "white collar" groups with a consequently greater average age. Apart from the "Farmers" group the highest average age, namely 32.1 years occurred in the case of "Employers, managers and shopkeepers" while the lowest, 30.3 years, occurred in the case of "semi-skilled manual wage earners." Although a difference of 1.8 years between the two groups may not appear very great closer inspection of the table will reveal that whereas only 8.7% of the mothers in the "Employer" group were under 25 years of age, 20.1% of the mothers in the "Semi-skilled manual" group were under this age. Apart from the rather low proportions in the 25 to 29 years group the age distribution of mothers in the "Farm labourer" class is not very different from that for the other wage earner classes, but the

“Farmers, relatives assisting and farm managers” group presents a unique age distribution. Only 31·2% of farmers’ wives were under 30 years of age at maternity while 12·6% were aged over 40 years. It might be thought that the wives of farmers who come to Dublin for their confinement do not represent a fair cross-section for the whole country. However, an examination of total registrations for the country reveal that the women who came to Dublin were slightly younger on average, their mean age being 33·1 years compared with 33·4 years for the whole country. If attention had been confined to age at maternity distributions within social groups in respect of first births only, the contrast between the “white collar” and “wage earner” classes would have been still more pronounced in view of the fact that the proportion of births of higher orders is greater among the latter class. This may be observed from Table XI.

TABLE XI.—PERCENTAGE DISTRIBUTION OF LEGITIMATE BIRTHS BY SOCIAL GROUP AND ORDER OF BIRTH

Social Group	Order of Birth							Total
	1st	2nd	3rd	4th	5th	6th— 9th	10th and over	
I Farmers, relatives assisting and farm managers	29·9	21·7	14·4	12·4	8·5	12·1	1·0	100—
II Farm labourers	28·1	17·9	18·6	11·2	5·6	16·3	2·3	100—
III Higher Professionals	31·8	25·0	19·6	10·7	6·6	6·2	0·1	100—
IV Lower Professionals	31·4	27·1	14·6	10·1	6·7	9·2	0·9	100—
V Employers, managers, shopkeepers	26·4	21·7	18·8	13·7	9·3	8·7	1·4	100—
VI Salaried employees	32·5	23·0	17·7	13·1	6·8	5·8	1·1	100—
VII Other “white collar” workers	29·5	23·0	17·7	13·0	6·5	9·1	1·2	100—
VIII Non-manual wage earners ...	22·5	20·8	15·9	12·6	8·2	16·3	3·7	100—
IX Skilled manual wage earners ...	27·6	22·5	16·8	11·0	7·2	12·9	2·0	100—
X Semi-skilled manual wage earners	23·2	19·6	14·3	12·0	8·9	17·5	4·5	100—
XI Unskilled manual wage earners	19·3	17·9	14·1	11·8	8·9	20·6	7·4	100—
Total (including the “not stated”)	25·9	21·3	16·2	12·1	7·9	13·6	3·0	100—

The proportion of births of the sixth and higher orders rose from 6·3% in the case of the higher professional group to 28·0% in the case of the unskilled manual wage earner group. The average number of previous children per 100 women in the various groups were as listed below :—

Farmers, relatives assisting and farm managers	204
Farm labourers	234
Higher professional	160
Lower professional	177
Employers, managers, shopkeepers	203
Salaried employees	169
Other “white collar” workers	188
Non-manual wage earners	262
Skilled manual wage earners	216
Semi-skilled manual wage earners	275
Unskilled manual wage earners	325

Place of occurrence

For an examination of births by place of occurrence the following groupings have been used:—

(a) Hospitals. This heading includes the three large maternity hospitals, namely the Rotunda, Holles Street and the Coombe, as well as St. Kevins Hospital. In addition a few births occurred in other hospitals in the city, by reason of the fact that the women concerned happened to be in-patients of these hospitals at the time of their confinement.

(b) Registered private maternity homes of which there were 27 in the city in 1955.

(c) Domiciliary. It was a fairly common occurrence for a woman to go to the home of her own mother for her confinement, and this facts caused no little confusion at the introduction of the new system of birth registration. In reply to the seemingly straightforward direction "State home address of mother" an address was given which was eventually discovered to be the address of the grandmother of the child. This point does not, of course, affect the classification of the births as domiciliary.

Of the total of 16,609 legitimate births in Dublin City in 1955, 10,481 or 63% occurred in hospitals and 2,923 or 18% in registered private maternity homes while 3,205 or 19% were domiciliary. In Table XII these births are shown classified according to the area of normal residence of the mothers, and the totals for 1945 are also given.

TABLE XII. LEGITIMATE BIRTHS ACCORDING TO PLACE OF OCCURRENCE AND PLACE OF RESIDENCE OF MOTHERS

Area	Hospitals	Place of Occurrence			Total 1945
		Registered Private Maternity Homes	Domiciliary	Total 1955	
Dublin County Borough ...	7,320	1,655	3,176	12,151	12,294
Dun Laoghaire Borough ...	390	148	1	539	486
Dublin County (Rem.) ...	1,395	649	18	2,062	1,020
Counties of Meath, Kildare and Wicklow ...	868	247	3	1,118	730
Rest of Leinster ...	337	125	4	466	429
Munster ...	47	42	1	90	98
Connacht ...	42	33	2	77	124
Ulster (part of) ...	82	24	—	106	90
Outside state ...	—	—	—	—	64
Total, 1955 ...	10,481	2,923	3,205	16,609	—
Total, 1945 ...	8,503	2,691	4,136	—	15,335

The annual number of live births occurring in Dublin hospitals increased by about 2,000 or 23% between 1945 and 1955, while births in registered private maternity homes increased in number by about 9%. On the other hand the number of domiciliary births declined fairly sharply, from 4,136 in 1945 to 3,205 in 1955, that is by 23%. The number of births to mothers normally resident in Dublin City

declined slightly from 1945 to 1955, but this decline was offset by a considerable increase in the number which occurred in Dublin County. These trends are, of course, explained by the transfer of families from central city areas to the new housing estates on the fringe of the city, some of which extend well beyond the legally defined city boundary. Births to mothers who were residents of Dublin represented 73% of the total which occurred in the city in 1955, while births to mothers living in Dun Laoghaire Borough and the remainder of Dublin County represented 16%. About 10% of the mothers lived in the rest of Leinster and less than 2% were from Munster, Connacht and Ulster.

Whether or not a woman will go to a hospital for her confinement depends very largely upon the number of her previous children. This may be inferred from Table XIII in which births are classified by parity and place of occurrence.

TABLE XIII.—LEGITIMATE BIRTHS BY PLACE OF OCCURRENCE AND ORDER OF BIRTH

Order of Birth	Place of Occurrence			Total
	Hospitals	Registered Private Maternity Homes	Domiciliary	
First child	3,312	808	129	4,249
Second child	2,298	744	452	3,494
Third child	1,543	578	533	2,654
Fourth child	1,076	373	530	1,979
Fifth child	672	207	410	1,289
Sixth to ninth child ...	1,132	175	927	2,234
Tenth child and over ...	278	13	201	492
Not stated	170	25	23	218
Total	10,481	2,923	3,205	16,609

Practically all the first births took place in hospitals or nursing homes, only 3% being domiciliary. For second births the proportion which were domiciliary was 13%, for third births 20%, for fourth births 27%, for fifth births 32% and for births of the sixth or higher order 41%.

As might be expected the social group of the mother has an important bearing on the question of whether a birth takes place in a hospital, maternity home or in her own home. In Table XIV the percentage distribution of the births in each social group according to place of occurrence is calculated.

The differences between the "white collar" and "wage earner" groups in respect of place of occurrence of births as revealed by this table is very marked. There was a much greater tendency on the part of women in the wage earner class to have their confinements at home, and in the unskilled manual group almost a third of the confinements were domiciliary. As was pointed out in earlier paragraphs women in the wage earner class have, on average, a larger number of children than those in the "white collar" class, while the preference for a domiciliary confinement becomes greater as the number of previous children increases. These circumstances would

account to some extent for the difference between the social classes shown by Table XIV, but it is unlikely that their influence on the general picture is very great. It should be remembered that many of the women who had their confinements at home were nevertheless "extern" cases of one or other of the large maternity hospitals and so were attended during their confinements by hospital staff. The proportion of births in private registered maternity homes was very high (74%) in the "Higher professional" social group and also fairly high (over 50%) in the "Employer" and "Salaried employee" groups.

TABLE XIV.—LEGITIMATE BIRTHS BY SOCIAL GROUP AND PLACE OF OCCURRENCE

Social Group	Total	Percentage			Total
		Hospitals	Registered Private Maternity Homes	Domiciliary	
Farmers, relatives assisting and farm managers	613	69.5	29.4	1.1	100--
Farm labourers	395	89.1	5.1	5.8	100--
Higher Professionals	815	23.4	74.0	2.6	100--
Lower Professionals	332	56.0	35.3	8.7	100--
Employers, managers, shop- keepers	1,103	37.8	53.5	8.7	100--
Salaried employees	711	40.2	52.5	7.3	100--
Other "white collar" workers	2,170	61.9	25.6	12.5	100--
Non-manual wage earners ...	2,263	70.4	4.0	25.6	100--
Skilled manual wage earners ...	3,443	69.2	9.1	21.7	100--
Semi-skilled manual wage earners	2,620	71.9	1.8	26.3	100--
Unskilled manual wage earners	1,963	66.0	1.2	32.8	100--
Not stated	181				
Total	16,609	63.1	17.6	19.3	100--

Although the proportion of births occurring in maternity homes in the "Lower professional" and "Other white collar worker" groups are somewhat below these levels they are considerably higher than in any of the wage earner groups.

Ex-nuptial births

All the material presented so far has related to legitimate births and while illegitimate births represent relatively only a very small proportion of the total it seems necessary for the sake of completeness to make some reference to them. It would, of course, be possible to examine illegitimate births in the same detail as has been used for legitimate births and the results would, no doubt, be of considerable sociological interest. However the most important problem facing the health authorities in relation to illegitimate births is that of persuading unmarried expectant mothers to avail of the best maternity services which are available to them. It is felt that too great attention to the statistical analysis of the subject might create the impression that the degree of privacy afforded to these women was less than

might be desired and so make the task of the health authorities more difficult.

In the year 1945 illegitimate births registered in the whole country represented 3.9% of all births, while in 1955 the corresponding percentage was 2.0. In respect of births to women whose normal residence was in Dublin City the proportion which were illegitimate declined from 3.0% in 1945 to 1.6% in 1955. The number of illegitimate births had risen considerably during the war years and the decline from 1945 to 1955 simply represented a return to the pre-war position. This trend is evident also from the figures for births occurring in Dublin City. Thus in the year 1945, 613 out of a total of 15,948 births occurring in Dublin, or 3.8% were illegitimate compared with 326 out of a total of 16,935 or 1.9% in 1955. The numbers of illegitimate births in 1955 according to mother's normal area of residence are as follows:—

Dublin County Borough	..	..	163
Rest of Dublin County	..	..	38
Counties of Meath, Kildare and Wicklow			26
Rest of Leinster	..	..	36
Munster	..	..	20
Connacht	..	..	18
Ulster (part of)	..	..	25

TOTAL .. 326

Births to mothers who lived in Dublin City represented exactly half of the total, whereas in the case of legitimate births about three quarters of the mothers were normally resident in the city. As regards place of occurrence, the number of illegitimate births in hospitals in Dublin in 1955 was 282, the number in registered private maternity homes was 29 and the number of domiciliary births was 15.

In the final table illegitimate births are shown classified by age of mother and parity.

TABLE XV. ILLEGITIMATE BIRTHS BY AGE AT MATERNITY AND NUMBER OF PREVIOUS CHILDREN

Order of Birth	Age at Maternity						Total 1955	Total 1945
	Under 20	20-24	25-29	30-34	35 and over	Not stated		
First child	61	88	51	16	13	28	257	} 499
Second child	2	10	17	6	4	4	43	
Third child and over	—	5	10	7	4	—	26	
Total, 1955	63	103	78	29	21	32	326	—
Total, 1945	83	275	166	59	30	—	—	613

In 1955, 79% of the illegitimate births were first births, this proportion showing little change from the figure of 81% in 1945. Neither did the age distribution alter appreciably since 1945, for although some increase occurred in the proportion of mothers aged under 20 years there was a corresponding reduction in the age group 20 to

24 years. In 1955, 57% of the mothers were aged under 25 years compared with 59% in 1945.

Before concluding I would like to remind anyone who proposes to examine more closely the figures given in this paper that they are derived from a form of inquiry introduced for the first time in 1955. Although in the circumstances the proportion of cases where the "not stated" heading must be employed is gratifyingly small and although, as far as can be judged, the figures seem free from inconsistencies it is not unlikely that corresponding tables for 1956 and later years will show up some defects in our first attempt. Most of the credit for the improvements in Irish vital statistics resulting from the system now in operation should properly be ascribed to the maternity hospitals since the greater part of the task of collecting the additional particulars has fallen on them.

DISCUSSION

Mr. Honohan considered that, while it might be justifiable to look at such statistics after a lapse of 10 years, there should be no need to labour some propositions which had already been established and which were likely to retain their characteristics, e.g., the seasonality aspect and certain features of the illegitimacy data.

The manner in which *Mr. Knaggs* had presented a picture of the relative sizes of families in this country and elsewhere might prove very valuable as this was not such an easy matter to demonstrate as might appear at first sight. His presentation confirmed the view already adverted to in the Report of the Commission on Other Population Problems that families in Ireland were about $2\frac{1}{2}$ times as large as those in England and Wales.

Mr. Honohan wondered whether there had been any satisfactory statistical determination of the generally believed theory—mentioned though not established in the paper—that both maternal and infant mortality tended to increase with increasing age of mother. Was this true, for instance, as between mothers aged 18—20 and mothers aged 23—25?

The speaker thought that, with papers of this kind, which consisted mainly of a series of points alternating statistical material and comments thereon, it would be a great help if a summary of the conclusions or principal observations could be provided at the end.