

LENGTH OF LIFE OF NOTED PEOPLE

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Contents

	Page
Introduction.....	1
Length of Life of Noted People.....	3
Length of Life of Noted People by Countries.....	16
Summary.....	26
Conclusions.....	30
Bibliography.....	31

INTRODUCTION

From time immemorial the length of human life has been a topic of the keenest interest. The poetic reference to it by the Psalmist is a matter of Biblical record. That this interest in longevity continues to date is indicated by the frequent references in the periodical press to the span of life, and to the gains that have been made in the average duration of life, especially during the last century. The curiosity regarding longevity exhibited by the population at large is further attested to by the many requests received by statistical bureaus, particularly life insurance companies, for information concerning the phenomena of mortality and longevity.

Other than in the Bible, records of a life span of unusual length are not found. Life span as used here "is the extreme limit set to life by old age."¹ Today a life span that exceeds one hundred years is unusual. "Medical science has not been able to increase the life span, but during the last century the average age at death has been materially increased."² This is primarily a result of a decline in the death rate of the population during the early part of life. Because they are concerned only with the average length of life and not with the exceptional age to which a very few live, life insurance companies have compiled tables for their own use which show the average number of years a person can expect to live under ordinary circumstances. Some of these tables will be referred to in this study.

This study has three primary objectives;

¹ Dublin and Lotka, Length of Life, p. 31.

² Roach and Fowler, The World Book, VI, p. 3419.

1. To compare the average age at death of noted persons with that of the general population.
2. To determine the average age at death of prominent persons by occupational class.
3. To determine whether or not the average age at death of these prominent groups changed significantly in the years immediately preceding and following the 1929-35 depression.

In this study the term "prominent persons" is to be taken to mean individuals who are noted either for some outstanding contribution they have made to society or because of belonging to some class of aristocracy.

It is not intended here to determine to what age a person can attain before death but rather to see whether there is any correlation between age at death, occupation, and prominence.

The first two groups to be studied are the noted people who died in 1929 and in 1935 and who are listed in the World Almanac of 1930 and 1936 respectively. Statistical procedure will be followed here to determine the occupational class and the average age at death. These figures will then be compared with those previously compiled by Sorokin in his Social Mobility and those gathered by Dublin and Lotka in Length of Life.

The comparison of these tables will provide information on like groups from the present time backward as far as the data are available. According to Lotka the ancient tables were composed of selected groups which in many cases did not give a true picture of the times. Such being the case, the older data will be less reliable than those of the present.

LENGTH OF LIFE OF NOTED PEOPLE

Human life is a very personal affair. It is your life and mine and that of our neighbors. Each life is a separate and distinct entity, yet there is a common sequence for all. The life that is complete begins with infancy, passes through childhood, adolescence, maturity, and old age in fairly definite stages of a general pattern. Unless accident or sickness intervenes the cycle will be completed, but even in the best of circumstances the human flame will burn out. There are a few individuals who are desirous in moments of despondency to rid themselves of the ills of this world and die by their own hand. The vast majority, however, seek to postpone the time of death to the most remote point. A study of a few prominent cases will help to show the relation of occupation and notability to the length of life.

The world has recently passed through an economic crisis. During the period from 1930 to 1934, the United States, like other nations, experienced one of the worst depressions in its history. In order to obtain a comparison of the average age at death of noted people before and after this period the death rolls for the years 1929 and 1935 have been chosen for study. The tabulated results are given in Table I. To facilitate comparisons of the data, the occupational classes are listed in the numerical order of the 1929 list, with the class having the highest average age at death being given first.

Table I shows that 45 army, navy and military men, dying in 1929, had attained an average age at death of 72.7 years. A like group that died in 1935 had an average of 69.5 years at death. This is a loss of 3.2 years. As in the case of other groups, there was not a large enough

Table I. Occupation and Average Age at Death of
Eminent People who Died During
1929-* and 1935-**

Occupational class	: Number of : Average age		: persons : at death	
	:1929	:1935	:1929	:1935
Army, navy, military men	45	32	72.7	69.5
Professors, scientists, scholars	41	24	72.6	72.4
American inventors	7	--	72.4	--
Senators, ex-senators	8	19	72.3	63.6
Doctors, nurses	20	10	71.7	66.0
Social workers	22	14	71.5	71.3
Governors	10	11	70.9	64.9
Nobility	26	24	70.2	68.6
Brokers, bankers, financiers	65	23	70.2	72.6
Theologians, clergy	48	32	70.0	73.6
Manufacturers and merchants	37	21	69.8	69.2
College presidents	9	10	69.6	68.4
Poets, journalists, authors	48	27	69.2	69.1
Congressmen, ambassadors, diplomats	46	--	68.8	--
Publishers, editors, printers, owners	55	41	68.7	68.8
Lawyers, judges, jurists, magistrates	83	40	68.2	68.8
Painters, sculptors, artists, architects	24	12	68.0	68.7
Athletes	16	9	64.0	60.4
Actors, actresses, theatre owners	35	13	61.5	71.8
Aviators	1	4	36.0	41.5
Miscellaneous	112	42	67.5	69.2
Total	758	408	69.1 (Mean)	69.0 (Mean)

* Source: World Almanac, 1930, Death Roll.

** Source: World Almanac, 1936, Death Roll.

number of cases in either year to constitute a good sample. This may in part account for the change. On the other hand, it is possible that a great number of those dying in 1935 were those who were injured in some manner or contracted a disease during the World War and who lost a few years as a result. There is no proof that this was not also true of the 1929 group.

At first thought it might seem to be a rather remarkable phenomenon that military men should lead all other groups in average age at death in 1929. Yet when all the facts are considered, it does not appear illogical. It should be kept in mind that this table is made up only of prominent individuals. The army and navy seldom have eminent men in the common ranks. In order to be outstanding in the army or navy one must attain a position of authority. In the services this takes a long time during periods of peace. In times of war, military men are elevated to positions of authority more rapidly than they are during times of peace, thereby attaining prominence at an earlier age. However, retirement or loss of position of any kind seems to bring on death more quickly than does continuous service, regardless of the age of retirement. This might also help to explain why the average age at death for this group dropped in 1935. Following the war we reduced our army and this reduction would give a greater number of years of retirement to those included in the 1935 list.

The next class is made up of scientists and scholars. Here we find only the small variation of .2 years difference between the 1929 and the 1935 groups. As pointed out by Professor Lotka "these professions are ones that should run on a fairly even keel and not undergo

the nervous strain or physical risks that accrue to certain occupations."³ It is not remarkable that the class should have a high average age at death. Except for scientists dealing with explosives, electrical devices, diseases, and so on, the members of this class are not exposed to any unusual risks. The occupations themselves carry low risk; therefore, there is every reason for scholars, professors, and scientists to expect a long life. It should be borne in mind that scientists do not usually make their important inventions or contributions until at least middle age. Those that are injured in early life thereby do not make the list of noted people and pull down the average age at death of the class. According to Sorokin, "Members of this class are also far above the average in intelligence,"⁴ and they take at least average care of their body as well as avail themselves of the best medical talent. In consideration of the data, this class may well be regarded as one maintaining high longevity.

The average age at death of senators and ex-senators underwent the terrific drop of 8.7 years between 1929 and 1935, changing from 72.3 years to 63.6 years. Like the class of scholars discussed above, the class of senators has many reasons to be long lived. In the first place, the constitutional requirement of a minimum of 30 years in order to be eligible for office is in favor of longevity. Moreover the political candidate must be fairly mature in order to control enough votes to be elected. Secondly, there is a low occupational risk and medical care is readily available.

³ Dublin and Lotka, op. cit. p. 240.

⁴ Pitirim Sorokin, Social Mobility, p. 294.

The rapid change in the average age at death of this class requires some explanation. The 1929 class had only eight deaths from which to determine an average. This is hardly enough cases to be a good sample. The 1935 group contained one who was assassinated at an early age. Both groups were composed in a large part of men elected after the war. It may be that the strain of public office during a crisis shortened the life of the 1935 group. The 1929-35 mean (67.7) perhaps better represents the group than the figures for either of the two years taken separately. The market crash and period of depression resulting in financial loss to many investors, which included several senators, no doubt had its effect and brought on mental anguish and nervous disorders which may have materially affected the 1935 list although there is no concrete evidence to substantiate this viewpoint. It is noteworthy that this group, like most of the other groups that are composed of men in public duty, had a decline in average age at death following the depression. It is possible that the extra strain of public service during a time of stress takes an extra toll.

Between 1929 and 1935 the doctors and nurses as a class dropped from an average age at death of 71.7 years to 66 years, a loss of 5.7 years. The 1935 list included only ten cases which is not enough to give a fair average. On the other hand, the 1929 average may be too high. Because of their occupation, doctors and nurses have an advantage in getting medical care which will help them to attain a long life, but there are many things that prohibit them from leading the list in longevity. From the very beginning of their training they are leading a life of stress and strain. Schooling takes several years

of intensive study. As a result, proper exercise is often neglected. After they have entered into a regular practice, the hours are long and irregular. To be constantly with those who are suffering and to face the trying ordeals of their profession drains heavily upon their physical and nervous system. This extra strain often results in pneumonia, leading to death. They are regularly exposed to disease and many are in insecure finances. As a result of these many drawbacks, it is no wonder that their lives are shortened. But in order to make some special contribution to the medical profession and thereby attain prominence, many years of work beyond regular schooling are required. So again it is seen where age is essential to notability.

The social workers have an average age at death that is above 71 years in both groups. That they have a long life is to be expected. Most social workers are women. The work itself is not particularly strenuous physically, nor does it require irregular hours as in the case of doctors and nurses. In the majority of cases the number of children of these workers is limited. Many are unmarried and do not run the risk of motherhood at all. Physical and mental standards for entrance into this field are high. This eliminates the unfit to start with. In as much as the work is of such a constant nature and is not changing in its requirements, one would expect the average age at death to be constant. The data bear out this expectancy. The variation was only a decrease of .2 years between 1929 and 1935.

The group composed of governors has a radical difference in the average age at death. From 1929 to 1935 the change of average age at death was from 70.9 years to 63.9 years, a loss of exactly seven years.

The size of the sample measured may be responsible for this difference. Since there were only 11 cases in 1935 to compare with 10 cases in 1929, an early death or an extra long life could materially affect the average of either year enough to pull it away from the mean of a larger number of cases. That the class would be high in average age at death is to be expected. Constitutional requirements as well as political expediency would require a high age at the time of elevation to office. The mean of the two years gives 67.8 years as the average age at death. The mean is probably a better gauge of the class than either of the two years studied.

The group made up of bankers and brokers offer an interesting study. In 1929, the year before the stock market crash, the group showed an average age at death of 70.2 years. That is a comparatively high average. In 1935, following the depression, the average age at death of the class had risen to 72.6 years. The 1935 group contained only 23 cases as compared with 65 for the 1929 group. This may account for the change. The big majority of the members of this group lived in the northern part of the United States in large cities and were not exposed to the southern sunshine and climate. The unhealthy climatic conditions of the drought years may have affected all living in the afflicted areas, but, to say the least, the financial men of the country have weathered the worst depression in our history and come out of it with an excellent average age at death. It even increased over the 1929 average.

The nobility listed were naturally of foreign extraction, most of whom lived and died in a foreign land. From 1929 to 1935 their average age at death dropped from 70.2 years to 68.6 years, the comparatively small loss of 1.6 years. The average of the two years taken together

(69.4 years) is slightly above the average of all classes but is considerably above the average age at death of monarchs of the sixteenth to nineteenth centuries. As shown in Table V, the monarchs' average age at death during this period was 53 years.⁵ This difference may be partially explained by the reasons given under the discussion of monarchs on page . The excellent average of the nobility may be due in part to the fact that the class did not include monarchs.

The next group includes the clergy and theologians and is large enough to give fairly accurate results. Like the scholarly group, they are a sheltered class. Their average age at death increased from 70 years in 1929 to 73.6 years in 1935. This class led the list in longevity for 1935. It would seem that there is a high degree of correlation here between mental and physical health. In addition to ranking high in length of life "the class ranks next to the top in mentality, being outranked only by the leading civil engineers."⁶ This group is placed under very little strain or occupational danger and with their mental rating should be one of the leaders in longevity. This position the data bear out.

The class of college presidents showed little change in the two years studied. There is only 1.2 years decrease in average age at death between 1929-1935. The mean for the two periods is 69 years. This average age at death was about three years less than that attained by the scholars and scientists. While the occupations of the two groups are very similar, there is the administrative responsibility on the part of the presidents that involves also a considerable amount of travel which possibly

⁵ Ibid, p. 259.

⁶ Ibid, p. 294.

accounts for the difference in their average age at death. Taken together the number of cases involved was only 19 in the two years for the college presidents, while the scholarly group had a total of 65. This difference in number of cases probably accounts for a slight variation in the average age at death.

With an average age at death of a little over 69 years, during both of the years considered, the class made up of merchants and manufacturers showed definite consistency. Had the group been divided it would show the manufacturers with a slight increase in longevity over the merchants but the difference is so small that it is of no consequence. An absence of any cause of death other than old age in most cases no doubt let this class attain the Biblical "three score and ten" before death.

Poets, journalists, and authors were identical in average age at death for both 1929 and 1935, according 69.1 years in both cases. The similar group of publishers, editors, printers and newspaper owners also show a close average age at death, recording 68.7 years for 1929 and 68.8 years for 1935. Thus it is seen that these two related groups have about the same average in both years.

Again as one might expect, the average age at death for congressmen, ambassadors, and diplomats is high, this class having an average age at death of 68.8 years for 46 cases in 1929. It is rather peculiar that this class which recorded 46 deaths in 1929 was not represented in the reports for 1935. There were a few who died in this year but they were more outstanding in some other line of endeavor and

are included in some other classification in the 1935 report. However, the average of 68.8 for 1929 is probably a very good mean for a large number of years, in as much as it is taken from 46 deaths and compares well with classes composed of people in like occupations. It is to be noted that the class average age at death is somewhat under that of senators. The fact that the age requirement for a senator is five years above that of any in the congressional class may explain the difference.

The average age at death of lawyers, judges, jurists, and magistrates varies only .6 years between 1929 and 1935, showing 68.8 years for 1935 and 68.2 years for 1929. The figures here should be reliable in as much as each year's average is made up from a large number of cases. There were 83 cases in 1929 and 40 in 1935. As in the army and navy this class requires a relatively long time to become famous. It does not include the justices of the Supreme Court, who will be discussed later.

The last class to be close to the entire group average age at death is composed of painters, sculptors, artists, and architects. Their average age at death which was 68 years in 1929 increased to 68.7 years in 1935. However, the number of cases for 1935 was only 12 or one-half of the number for 1929.

Despite the small number of cases the next class is of special significance. That is the athletes. In 1929 their average age at death was only 64 years, while it had dropped to 60 years by 1935. It might seem at first that this small average is due to the deaths of some in sports, as football for example, but such is not the case. There is not a single case listed in which death came as the result of

an accident. Athletes are supposed to be more nearly perfectly developed specimens than the average population, but the facts indicate that they are over-developed. Athletes are in training during the younger and growing period of life. During this time they are training and are developing a large heart as well as supple muscles. The large amount of blood needed to carry the energy to maintain their activity makes a job that the ordinary heart cannot do. As the individual stays in training, the heart is doing more than is usually required and becomes enlarged. After retirement from competition, this energy is not needed, but the over-developed heart is there just the same. It is likely that this results in heart trouble and premature death. "Heart trouble is the leading contributing cause of death in the United States."⁷

In the group including actors, actresses, and theatre owners, the widest range is found, with the group in 1929 having an average age at death of 61.46 years as compared to that of 71.8 years for the 1935 group. The 1935 group contained only 13 cases, but an examination of the individuals concerned probably gives a better explanation of this wide difference in average age at death for the two groups. In the first place, the theatre owners pulled up the 1929 list, but affected the 1935 list very little. However, the principal difference lies in the interesting fact that the big majority of those making up the low 1929 death roll are from the motion picture industry, and are living in Hollywood, many of whom died from violent causes. Some were noted drug addicts. The 1935 list is made up of those who follow what is known as

⁷ Dublin and Lotka, op. cit., p. 125.

the legitimate stage. Most of those deaths were recorded as of New York. This would seem to bear out the prevalent idea that life in Hollywood is extremely hazardous. That such a difference should exist is noteworthy despite the opinion presented by popular writers to the contrary.

The smallest class is that of the aviators, but it is included for a particular purpose. With only one case at 36 years in 1929 and an average age at death of 41.5 years for four cases in 1935, we have a concrete example of occupational risk. Every one on the list died as the result of an airplane accident. In this machine age the hazards of life are greatly increased. Particularly is that true in the field of experimental aviation. If only transport planes were used this average age at death would undoubtedly be higher, but some one obviously has to pioneer the way. Moreover, the field requires youth and as a result of its selectivity the age level is held down. Wiley Post at 36 years is included in this list. Like the others he was in private plane.

In the miscellaneous group are those who did not fit into any other group, yet were included in the death rolls of 1929 and 1935. One would expect that the average for the miscellaneous group would be the same as the average for all classes. In the case of Table I for 1935, this almost held true with an average of 69.2 years for 42 persons, but in 1929, despite the large number of individuals, which was 112, the average was 1.5 years less than that for the group as a whole. However, the 1929 group included some exceptionally young people which no doubt accounts for the variation.

Table II. Average Age at Death of Noted People Dying During
1929 and 1935 by Sex

Sex	: Number of persons :		: Average age at :		: Average
	: death :				
	: 1929	: 1935	: 1929	: 1935	:
Male	699	369	69.1	68.7	68.9
Female	59	39	68.3	71.3	69.4

According to Table II, the female average age at death increased from 68.3 years in 1929 to 71.8 years in 1935, a gain of 3.5 years, while during the same period the male population lost .3 years, dropping from 69.1 years in 1929 to 68.8 years in 1935. This is hardly a fair comparison between the males and the females, due to the wide difference in the number of cases. In 1935 there were only 39 female individuals comprising the list, as compared to 369 males. The table includes only about 40 percent of the women that were listed in the death rolls of the respective years because their age at death was not known to the publisher. Had it not been for this, the greater number of cases might have brought their average age at death in the two years studied much closer together. While the males have the higher average age at death for 1929, the margin by which the females are in the lead in 1935 is sufficient to give them an average of .5 years over the males when both years are taken together. This mean is a weighted average.

Length of Life of Noted People by Countries

According to Table III, England has the highest average age at death in 1929 and in 1935. There is only .1 years difference between the two groups, and as each group has a large number of cases, the assumption is that the figures are fairly reliable. In both years France is in second place, running slightly over two years behind the English. The United States is in third place with an average of 68.5 years for both years studied. The large number of cases listed for the United States no doubt allows for this consistency. The high average of the

Table III. Average Age at Death of Noted People Dying
During 1929 and 1935, by Countries

Country	: Number of persons		: Average age at	
	:		: death	
	: 1929	: 1935	: 1929	: 1935
England	88	63	72.0	72.1
France	23	14	69.5	70.7
United States	584	289	68.5	68.5
All others	63	42	70.2	67.9
Total	758	408	69.1	69.0

English group is probably accounted for by the fact that nearly all members of the class came from the army, navy, or nobility classes. From the 1920 census "the average age at death for England as a whole is 55 years⁸ for men and 59 years for women". During this period "the average length

⁸ Dublin and Lotka, *ibid.*, p. 50.

of life in the United States is 55.3 years for males and 57.5 for females."⁹ Since the nation as a whole averages higher in length of life than the United States, England's noted persons might be expected to lead us in average age at death. The length of life of England's women is one important factor causing it to hold first place. Our heterogenous population may be responsible for our third place ranking behind France. The ease with which our food and transportation are obtained does not promote exercise. Our economic system does not provide for regular out door activity. This may tend to reduce our average length of life.

When all countries, including both sexes, are averaged together the average age at death is 69.1 years for 1929, while the average age at death for the like groups in 1935 is almost identical at 69 years. In consideration of the large number of cases and the nearness of the two years in their average age at death, it would seem reasonable to accept 69 years as the average age at death of noted people for the 1929-35 period.

There is one criticism, however, to be pointed out with regard to the source of material. The death rolls of the World Almanac for the years 1930 and 1936 doubtless were selective. In the listing of eminent people, New York City was given as the place of death of about 32 percent of all comprising the list. In some cases such as that of magistrates, there were hardly any that were listed from some other locality. That being the case the climatic conditions may have distorted the average of the nation as a whole. On the other hand, this difference may be a re-

⁹ New York World Telegram, The World Almanac, p. 276.

sult of different economic status, racial composition, or other similar factors. The comparative number of newspaper men of all types is quite large. This could be expected in as much as the World Almanac is compiled by the New York World Telegram newspaper. With allowance for this biased list, some examples that are not territorially restricted should be examined.

In the case of the members of the Supreme Court of the United States, it is found that the average age at death for the 68 deceased members is 71.3 years. This will be even higher when those members who are now on the bench are included, as six of them are over 70 years. Several past members of the court have lived to over 90 years.

According to Table I, the average age at death of noted persons for the period 1929-1935 is 69 years. A weighted mean shows the average age at death of the general population in the United States in 1920 to be 56.4 years.¹⁰ From these figures it would appear that noted people outlive the general population 12.6 years. In as much as many of the general population die at a very early age to use these figures may not appear fair to the nation as a whole. Therefore, to take the "American table of mortality figures for expectation of life"¹¹ as a measuring stick may be a fairer test. The death rate is only 7.49 at the age of ten years. That is the lowest death rate at any time during life. For that reason the expectation of life at the age of ten will be used as a basis for study. The expectation of life at the age of ten is 48.7 years. That would make

¹⁰ Ibid. , p. 276.

¹¹ World Almanac, 1937, p. 276.

the total expected length of life to be 58.7 years. Table IV shows the number of years that each class studied for 1929 and 1935 has exceeded or fallen short of this life expectancy. The third column in Table IV shows the number of years that each class has exceeded this life expectancy when the 1929-1935 averages are taken together.

According to the 1929-1935 averages it is seen that scientists, scholars, and professors closely followed by inventors can expect the longest life. Moreover, the scholarly class can expect to outlive the average person who does not become an eminent character by 13.8 years. The other classes have a similar advantage to the extent that is shown in column 3 of Table IV.

The figures in Tables I-IV, inclusive, deal only with those who have died recently and does not take into consideration the people living in periods past. The only example that has been introduced that goes back any great period of time and comes down to 1929 is that of the justices of the Supreme Court. Their data covered the period from 1789 to 1932. In order to throw additional light on the question of whether or not noted people have had an advantage in longevity, let us look at some classes living in the past. Another class that will parallel the justices of the Supreme Court is the presidents of the United States. Upon separating them into two groups with the Civil War as the dividing line, it is found that the average age at death of the first 15, or the pre-war presidents, is 73.8 years, while that of the 14 deceased presidents of the post-war era is only 62.4 years. The average age of all deceased presidents is 68.3 years. These figures show the presidents to lack .6 years of equaling the average age at death of all noted males

Table IV. Number of Years Classes of Noted People who Died
During 1929 or 1935 Exceeded Life Expectancy*

Occupational class	Number of years exceeding general life expectancy		
	1929	1935	1929-1935 average
Professors, scientists, scholars	13.9	13.7	13.8
American inventors	13.7	--	13.7 **
Theologians, clergy	11.2	14.9	12.7
Social workers	12.8	12.6	12.7
Army, navy, military men	13.9	10.8	12.6
Brokers, bankers, financiers	11.5	13.9	12.1
Manufacturers and merchants	11.1	10.5	10.9
Nobility	11.5	9.9	10.7
Poets, journalists, authors	10.4	10.7	10.4
College presidents	10.8	9.7	10.2
Congressmen, ambassadors, diplomats	10.2	--	10.2 **
Doctors, nurses	12.9	7.3	10.2
Publishers, editors, printers, owners	9.9	10.1	10.0
Lawyers, judges, jurists, magistrates	9.5	10.1	9.7
Painters, sculptors, artists, architects	9.3	10.0	9.5
Governors	12.2	6.2	9.1
Senators, ex-senators	13.5	4.9	7.4
Actors, actresses, theatre owners	2.7	13.1	7.4
Athletes	5.3	11.7	4.4
Aviators	-22.7	-17.2	-18.3
Mean	11.1	10.5	10.9

* Source: Calculated from Table I on basis of life expectancy at age of ten.

** Data for 1929 only.

but they exceed the general male population by 13 years.

The fact that the average age at which the pre-war presidents took office was 57.1, while those of the post-war period had attained to only 51.3 years is a partial explanation both as to why the average age at death of the pre-war presidents exceeded the average age at death of the post-war presidents, and why they have such a high average when compared to the average age at death of the general population. In addition to that, the average age at death of the post-war presidents was cut down by the assassination of three of their number. Assassination, of course, may be assumed to have cut several years off of their natural span of life. Because of the high age at which presidents take office, it might seem that they should be one of the leading classes in longevity. However, this is seen to be unlikely when one considers that they are called on to expend an unusual amount of energy and vitality. If one compares the photographs of any president before and after serving a term of office the terrific change that he has undergone is readily apparent.

Table V goes back as far as 1500 A. D. and comes up to the nineteenth century. The average age at death of groups that are common to Tables I and V show a close similarity in most cases. In the class of American inventors the average age at death for the sixteenth to nineteenth centuries at 74.7 years is outstanding. This is the highest average age at death for any class studied.

On the lower end of the table is the class of monarchs. Their average age at death of only 53.6 years is much below that of any class of present day noted people except aviators. Their low average age at death

Table V. Noted People Living and Dying During the 16th,
17th, and 18th Centuries*

Classes of prominent people	: Number : of : persons	:Average age :at death in :years
American inventors	252	74.7
Roman Catholic Popes	85	69.8
American millionaires	278	69.2
Jurists, judges, lawyers	49	68.9
Theologians, clergy	131	68.7
Presidents of Germany, France	6	68.0
Statesmen, politicians	81	67.4
Scholars, scientists	290	67.3
French literary men	854	67.3
Army, navy, military men	75	67.1
Authors, poets, journalists	147	64.4
Artists, musicians, painters, architects	180	64.0
Secretaries of State, Vice-presidents and presidents pro tem of the Senate	216	64.0
Most eminent women of all countries and times	670	60.8
Monarchs	272	53.6
	Mean	68.3

* Adapted from Sorokin, op. cit., p. 259.

is caused by several reasons. During the middle ages kings and rulers often led their armies in battle. This resulted in many being killed in action. Another material limiting factor is assassination. According to Sorokin, rulers are usually a superior class physically and mentally.¹² As the same writer points out there are periods when this is not so. Close intermarriage will bring out hereditary defects. During periods of cultural decay the nobility suffer. Disease and feeble-mindedness show up in offspring. These are limiting factors during an era of decay.

From Table V the average age at death of all classes of noted people dying during the sixteenth to nineteenth centuries is seen to be 68.3 years. This is .7 years less than the average for 1929-35. It should be noted that there are a large number of cases in the class of eminent women in Table V. Their average age at death during the sixteenth to nineteenth centuries was 60.8 years. The 1929-35 average age at death for women is 69.4 years. This change of 8.6 years in the length of the life of women probably accounts in a large measure for the difference in average age at death of the notables of the sixteenth to nineteenth centuries and those dying during 1929 and 1935.

According to Dublin and Lotka "among the ancients we find that a selected few had an average age at death of 67 years."¹³ The same authority, however, points out that many of the tables on the average age at death of many of those living in the past are not accurate and cannot be taken as dependable. "Some of the earliest tables show the

¹² Sorokin, op. cit., p. 270.

¹³ Dublin and Lotka, op. cit., p. 32.

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average age at death of the ancient population to be 22 years."¹⁴ Even granting that 22 years is too low, it would appear that the noted ancients were outliving the general population. To further support the contention that noted people outlive the general population, let us examine the data of other early statisticians.

In 1833, R. R. Madden found the average age at death of poets to be 57 years, that of musicians to be 64 years, while natural philosophers lived 75 years on the average. The list that Madden used was based on only 20 selected names in each class and was, as a result, quite biased. Dublin checked on Madden's work by using the age at death of 75 noted people in each class and found that the average age at death for mathematicians was 64.3 years, that of poets was 64 years, and for musicians 62.3 years.¹⁵ These averages are above those of the general population of any period.

Because a newspaper calls particular attention to the event when some noted individual dies before reaching the Biblical "three score and ten" it no doubt leads us as casual observers to make such remarks as this, "Isn't it unfortunate that so many of our famous people died at an early age?" There is no question but what many noted people have died at an early age, for example, Alexander the Great, Joan of Arc, Jesus, Schubert and Mozart. But on the other hand, it is also true that many have outlived the average.

From the data given above it seems that the majority of notables outlive the normal span of life many years because the class average

¹⁴ Ibid., p. 28.

¹⁵ Ibid., p. 30.

ages at death are above the average age at death of the general population. When the data studied in Table I is reduced to percentage, it is found that 42.5 percent of the notables died between the ages of 50 years and 70 years; 50.8 percent of the group lived beyond the 70 year mark and the remaining number, or 6.7 percent, died before reaching the 50 year mark.

Summary

Since the data indicated that noted people do outlive those who do not achieve distinction, there must be some explanations as to the cause. Some of the factors that seem to be involved are not difficult to understand. The relative contribution of heredity and environment to our physical, moral and social make-up has long been a source of contention among different sociologists. Without entering into this argument, it may be assumed that both sets of factors are highly important. A comfortable environment is more often afforded noted individuals than is true of the common population. The noted are, on the average, better off financially and provide themselves with a higher grade of food, clothing, shelter, and medical care. This type of environment will extend the average length of life of any group.

Heredity contributes its share in more than one way. In the case of the nobility, with the exception of the periods of decay, they probably tend to constitute a biological stock superior to the masses. The inherited title or position does not force them to undergo a severe strain in attaining prominence, although dissipation and idleness may at least partially offset this advantage. In many cases where mental or physical strain is undergone during a period of training, it may cut down the length of life. This was shown in the case of doctors and nurses.

Sorokin observes that "The role of selection is especially important as it concerns that part of the upper classes which is composed of climbers from lower classes. As a rule only men with a high longevity have a chance to climb from the lower classes to the higher. The rea-

son is that climbing demands time." ¹⁶

It is true that some men do attain prominence at an early age, as has been pointed out, but that is not the case of the majority. This study is concerned not with the few exceptions but with the rule.

People who die at an early age do not have a chance to show their talent. Therefore, they have not crossed any considerable verticle distance and will not be included in the list of prominent people. In order to show their talent and ability, men and women must spend many years in work and preparation before they are recognized and promoted or become prominent. If they do not live a long time they are eliminated before reaching a high position.

"The great men and the climbers generally live a long time for the excellent reason that they must live a long time or they never become eminent' - such is the situation. It is seen from the following figures. The average age at the time of the ascent to the throne of the non-hereditary monarchs is 48.5 years: for the Roman Catholic Popes is 61.3 years: for the French, German, and American Presidents correspondingly 59.5, 59.55 years. The average age of American Scientists at the time of recognition is between 30-44 years, while the inventors made the inventions that broug recognition at an average age of 34.9 years. Among the poor born American millionaires, the percentage of those who became rich at an age between 21-30 years is only 2.2; more than 60 percent of them became rich at an age of 51 years and above. Among 222 Secretaries of the government of the United States, 94.1 percent obtained their position at the age of about 40 years. Sixty-one and nine-tenths percent at the age of above 50 years. This means that those who died at ages earlier than these could not climb to the corresponding position. They were eliminated before they could cross the distance." ¹⁷

Certain occupations force its members to be well matured before taking up the work. These people, therefore, possess the characteristic of longevity. These individuals in turn transmit this characteristic

¹⁶ Sorokin, op. cit., p. 264.

¹⁷ Ibid., p. 265.

of longevity to their offspring. A higher average age at death of the upper class is the result.

In addition to the hereditary and environmental factors, there must be added those of a psychological character. It must be expected that these should show themselves in the age at death of persons of widely different type, such as perhaps the great poets or musicians on one hand and famous mathematicians on the other. Musicians and poets are temperamentally disposed to lead a somewhat stormy, or at least, irregular life. Mathematicians and philosophers as well as inventors by their very occupation are inclined to pass, if not a placid, at least a relatively quiet existence. The divergent mode of life and mental attitude of these widely different groups of persons might well be expected to have an influence on their length of life. However, from the figures in Table I it can be seen that there is not a great variation in average age at death from year to year.

Some classes of noted people die a premature death instead of outliving the average. This is because of occupation. Oft-times an occupation will offer chances for recognition at an early age, but at the same time take a heavy toll for this honor. In the past century, the so-called mechanical age has, it seems, permitted inventors to attain a ripe old age, but people carrying on experiments that involve physical risk such as the motor car and aviation fields demand, live a rather precarious life. Again those occupations that task the nervous system have a regressive effect. This was pointed out in the case of the class of doctors. They are certainly under a nervous tension which has its detrimental effect as the average age at death of the class shows.

While the use of certain data , as was pointed out, may be subject to some criticism, it was found to bear out similar data, which was introduced, that had been compiled by others. Data bearing on the expectation of life or the average age at death among the ancients is at its very best inaccurate and cannot be regarded as much more than historical curiosity. However, by the nineteenth century, tables became available that are fairly accurate and dependable. Tables in use on the present population can be considered authentic and are based upon sufficient data to be reliable.

Conclusions

1. The upper classes as a result of hereditary and environmental factors live longer than the general population.
2. The average length of life of all classes is on the increase.
3. The potential life span has not been increased.
4. The higher social classes are stronger physically, are healthier, and have a greater vitality than the lower classes.
5. Physical strength does not play as important a part at present as it did in the past in determining longevity. This is because people in this era are not required to secure food, clothing, and shelter and protect their existence through physical strength.
6. The average age at death of all classes of noted people is not materially affected by a period of economic depression.
7. Scholars, scientists, inventors, theologians, and other classes that live a sheltered life maintain the highest average age at death. These same classes were not materially affected by the 1929-1935 depression.
8. The average age at death of classes that are engaged in public duty such as, governors, presidents, senators and military is reduced during periods of depression.
9. The average age at death of men of finance such as bankers, and brokers, is not reduced by a period of depression.
10. Noted people of England and France have a higher average age at death than like classes in the United States.
11. The average age at death of females is higher than the average age at death of males. This is true both in the general population and the noted classes.
12. Noted people dying during 1929 or 1935 outlived the general population by 12.6 years.

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