

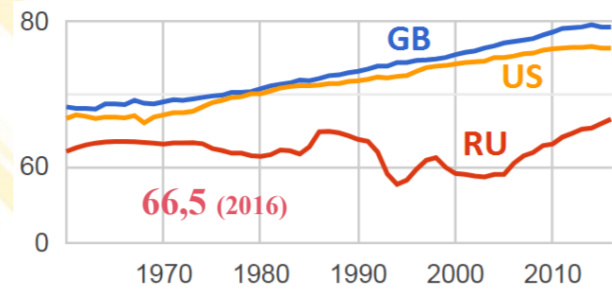
Scientists vs Athletes: who is longer?

IDEA:

Everyone dreams of becoming someone and achieving professional and creative success. But, who lives longer: scientists, writers, artists or sportsmen? Are there statistical features of the life expectancy of figures of different creative professions? Let's try to figure it out.

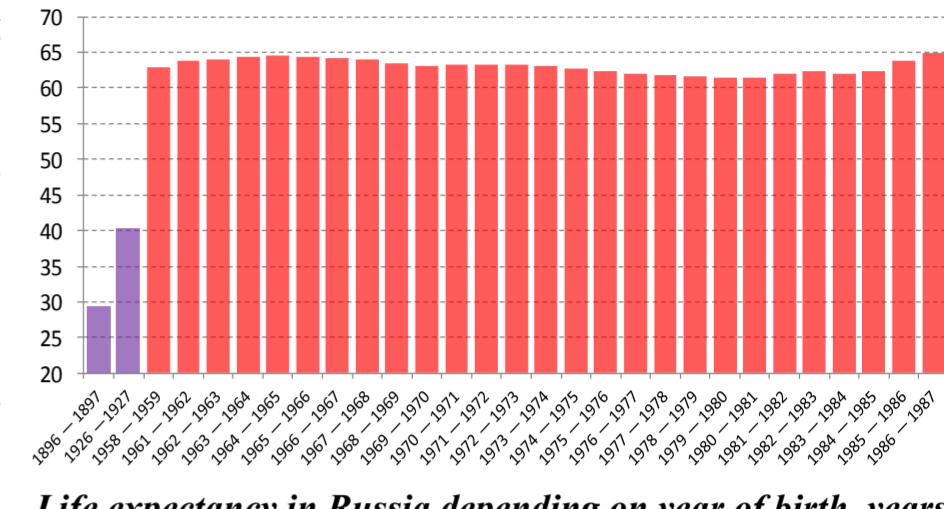
EXTERNAL CONDITIONS:

In 2016, the average life expectancy of men in Russia was 66.5 years, which is significantly less than, for example, in the USA – 76.3 years and in the UK – 79.2 years.



Life expectancy in Russia is constantly changing. According to the statistical compilation "Russia's population over 100 years (1897-1997)", men born in 1896 lived on average for 30.5 years, and those born in 1926 – 42.9 years.

For men born in 1900-20 and living on the territory of Russia, the average life expectancy can be estimated at 36.7 years. The average indicators for each group were significantly higher than the average for Russia. This indicates a certain high status of these people and the availability of medicine for them. All 120 people surveyed in the study lived more than 37 years, but two of the athletes didn't live to be 40 years old.



HYPOTHESIS:

People of different creative professions have different levels of training, stress and pressure, income, and also differ in the level of activity, brain and physical activity:

- **Scientists** think a lot, lead a sedentary lifestyle, read a lot and give lectures, communicate with students, speak to the public
- **Painters** are creative people, they experience a lot in themselves, while outwardly they are often calm, they work little physically
- **Athletes** lead a healthy lifestyle, they are trained, and this is often accompanied by injuries, the use of stimulant drugs, and by the age of 35-40, they stop training. They often compete in competitions, which adds emotional stress and nervous tension.
- **Writers** are creative people, rather passive in terms of physical exertion, emotionally calm, romantic and lovingly
- **Artists** are creative individuals who have to get used to other people's roles, perform in public, giving a part of themselves, their activities are emotionally intense, as they often give concerts and performances, are also romantic and lovingly
- **Musicians and singers** also lead creative activities, they are romantic and lovingly, their work is associated with concerts, emotional stress, dependence on the love of fans. In the absence of popularity, they often fall into depression. High popularity can lead to the abandonment of a healthy lifestyle, permissiveness.

REPRESENTATIVE, INFORMATION AND METHODS:

Representatives of various professions in the field of culture and sports were selected – 20 well-known people in each group. For the purity of the experiment, only male representatives, born from 1900 to 1920, who lived and worked in Russia, were selected in order to exclude influence on the life expectancy of gender, national and technological factors. That is, the analysis was carried out only for figures who were born and lived in one country, in one period, had access to the same level of technology in medicine and pharmaceuticals.

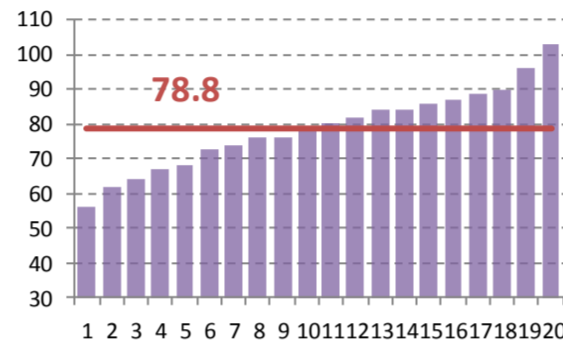
Only one sign was studied – the age at which a person died, regardless of the cause of death. The basic principle of selection is random sampling. In the course of the study, the arithmetic average and the median life expectancy were calculated for each category of actors, as well as the variation indicators: dispersion and variation coefficient, which reflect the variation in values.

RESULTS OF RESEARCH



Scientists

I.V. Kurchatov	S.L. Sobolev
A.O. Gelfond	N.N. Bogolyubov
G.A. Gamov	A.N. Kolmogorov
M.V. Keldysh	D.E. Okhotsimsky
I.S. Shklovsky	A.N. Tikhonov
Ya.B. Zeldovich	V.A. Ambartsumyan
L.V. Kantorovich	B.A. V.-Velyaminov
A.A. Markov	D.D. Ivanenko
I.K. Kikoin	I.M. Gelfand
L.S. Pontryagin	K.N. Lvovich

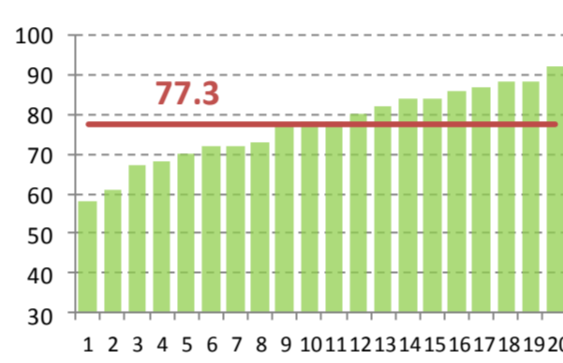


average life expectancy **scientists**
78,8 years
median – 79,5;
dispersion – 139,2;
variation coeff. – 1,8



Painters

Yu.N. Dudov	O.G. Vereysky
B.I. Prorokov	D.K. Mochalsky
Ya.D. Romas	F.P. Reshetnikov
M. Axelrod	N.I. Barchenkov
A.A. Deineka	I.P. Ruban
E.A. Kibrik	P.T. Maltsev
E.E. Moiseenko	V.I. Patalaha
A.F. Pakhomov	M.V. Kupriyanov
P.T. Fomin	P.N. Krylov
V.P. Efanov	N.A. Sokolov

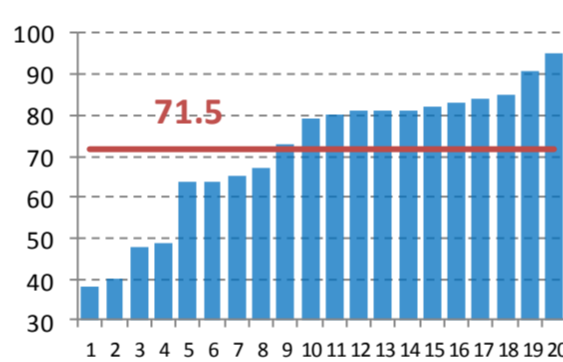


average life expectancy **painters**
77,3 years
median – 78,0;
dispersion – 89,1;
variation coeff. – 1,2



Athletes

F.P. Klimov	V.M. Abalakov
B.A. Bolshakov	V.K. Nikitin
N.K. Karakashian	N.K. Georgikia
T.F. Konstantinovich	L.V. Dzekonsky
V.E. Kolpakov	E.O. Laurent
K.L. Kopchenov	K.T. Bulochko
I.Ya. Amikanov	E.E. Naarits
S.S. Oganezov	S.R. Razdorozhnik
A.M. Kozyrev	L. Palavandishvili
I.F. Lysov	A.M. Ilinsky

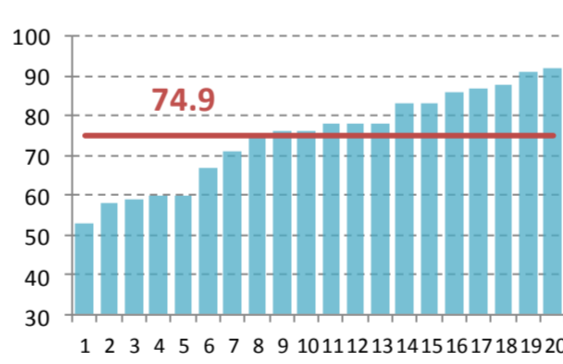


average life expectancy **athletes**
71,5 years
median – 79,5;
dispersion – 277,0;
variation coeff. – 3,9



Writers

V.V. Yuhnin	P.E. Beilin
P. Viiding	Ya.V. Bash
A.M. Jacobson	M.A. Sholohov
G.N. Gaidovsky	A.V. Yakubenko
G.P. Tushkan	S.S. Larionov
L.Ya. Agakov	I.I. Uksusov
A.G. Adamov	A.P. Keshokov
V.T. Shalamov	N.S. Nikolsky
A.Ya. Capler	K.A. Oboyschikov
A.A. Malakhov	A.V. Kalinin

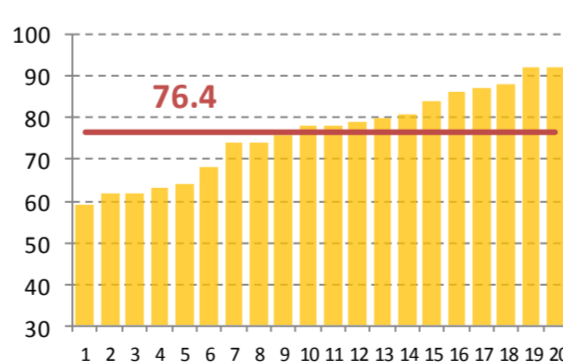


average life expectancy **writers**
74,9 years
median – 77,0;
dispersion – 141,8;
variation coeff. – 1,9



Artists

A.M. Smirnov	S.N. Filippov
E.G. Yavorsky	S.A. Gerasimov
S.A. Zakariadze	G.V. Alexandrov
N.K. Cherkasov	A.K. Sova
V.M. Volchik	G.M. Vitsin
Ya.A. Frenkel	I.V. Ilinsky
M.M. Yanshin	N.I. Parfenov
A.M. Ibrahimov	E.E. Knausmüller
A.Ya. Kapler	V.V. Safonov
M.A. Alekseev	E.K. Zabayakin

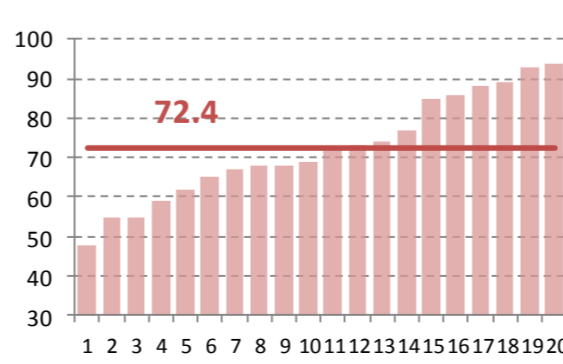


average life expectancy **artists**
76,4 years
median – 78,0;
dispersion – 108,6;
variation coeff. – 1,4

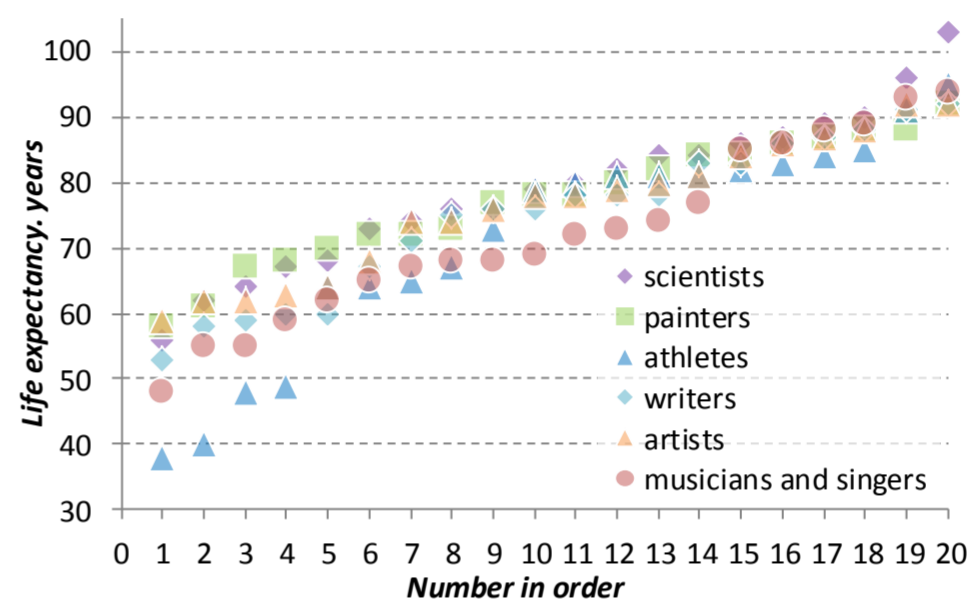


Musicians and singers

I.D. Shmelev	O.M. Dine
R.I. Kaplansky	A.I. Vedernikov
G.K. Ots	S.Ya. Lemeshev
A.A. Galich	I.P. Alekseev
Y.H. Vutiras	E.A. Mravinsky
A.N. Tsfasman	M.S. Druskin
K. Japaridze	V.F. Coralli
S. Lyubimov	I.A. Zack
A.F. Frinberg	I.S. Kozlowski
A.A. Ivanov	T.G. Gevorqyan



average life expectancy **musicians and singers**
72,4 years
median – 70,5;
dispersion – 179,0;
variation coeff. – 2,5



Distribution of persons (120 people) in each category (6) by life expectancy

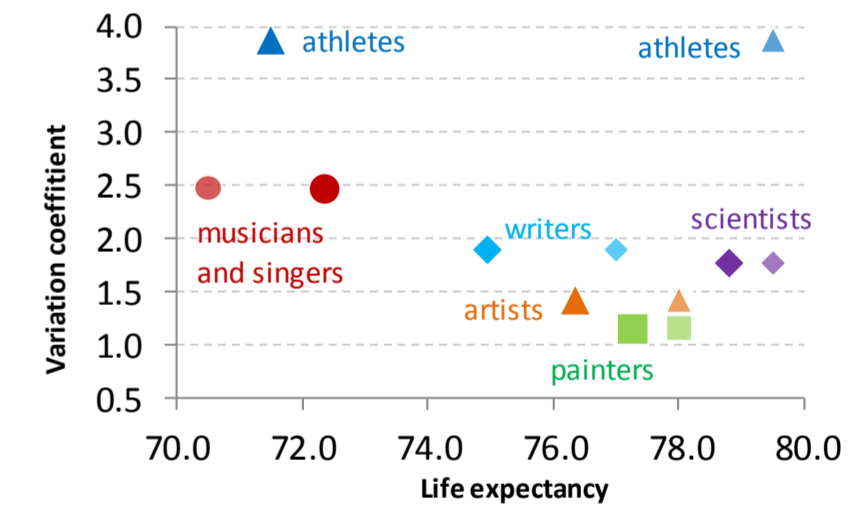
CONCLUSION

Artists and painters live steadily for a long time: their life expectancy is high (the arithmetic average is more than 76 years with low variation – less than 1.5%). Quite unstable indicators for singers and musicians: low life expectancy (less than 73 years old – arithmetic average) with high variation (2.5%). The median for them is only 70.5 years, which indicates a high proportion of people who died early.

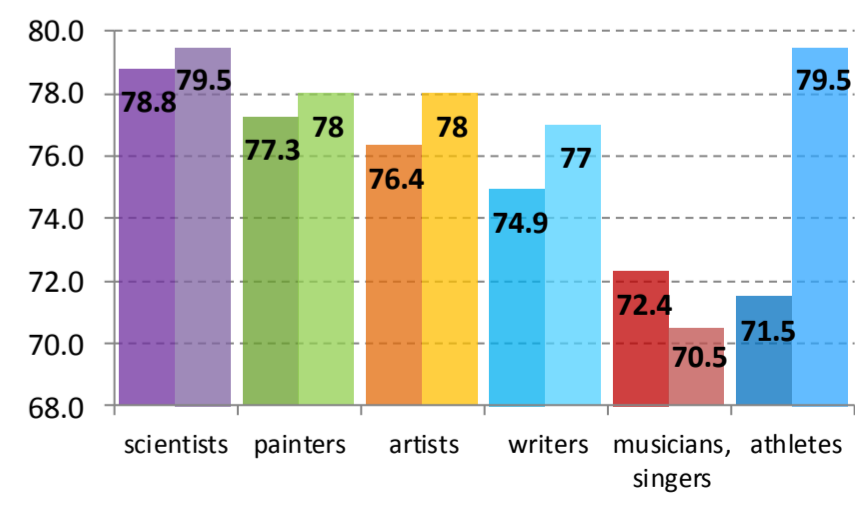
The indicators on athletes are even more unstable: many of them did not live to be 50 years old, although there are people who have reached 95 years old, which has not been found in any other category except for scientists. High mortality of athletes at an early age was a consequence of the World War. As a rule, athletes were sent to the front much more often than scientists or cultural figures. Therefore, athletes are characterized by high risks of injury or even death not only as a result of professional activity.

Due to the longevity of many athletes, the median life expectancy of this category is comparable to the figure for scientists (79.5 years), which in both versions of the average have become absolute long-livers. The hypothesis was confirmed.

We received an additional argument for linking our lives with science. In the future we are planning to study the influence of spatial (territorial), national and gender factors on the life expectancy.



The ratio of longevity and variation
Large icons – average arithmetic expectancy.
Small icons – median expectancy.



Average life expectancy, years. Right row – average arithmetic expectancy. Left row – median expectancy.