Dimensions of Quality of Life vs. Working Hours in the U.S.

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How is quality of life defined?

Quality of life is defined as the degree to which an individual is healthy, comfortable, and able to participate in everyday activities. Quality of life is seen as multidimensional, encompassing emotional, physical, material, and social well-being.

Quality of Life Indicators:

- Life Expectancy
- Employment/Unemployment
- Education
- Accessibility to Infrastructure and Services
 - Roads/Public Transportation/Traffic
 - Technology (Phone/Internet)

- Crime/Social Deviance
 - Homicide/Violent Crime
 - Drug/Alcohol Use
- Mental Health
- Housing
- Environment
 - Pollution
 - Wildlife Diversity
 - Green Space

Hypothesis:

Every dimension of quality of life will be correlated with mean working hours/worker/year, with an $r^2 > .5$.

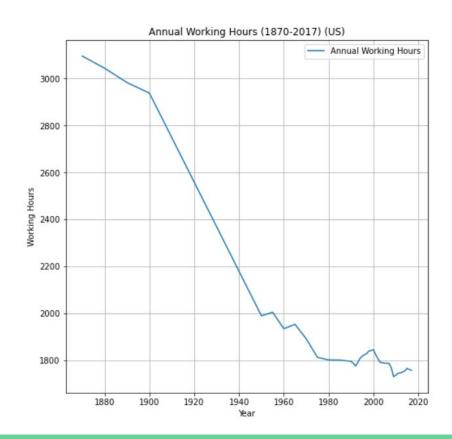
We used ourworldindata.org, the OECD (Organization for Economic Cooperation and Development), and BLS (Bureau of Labor Statistics) to get our data.

Work-Life Balance: Average Hours Spent Working (U.S.)

Advantages of Work-Life Balance:

- Increased productivity
- Less instances of sickness and absenteeism
- Staff feeling valued and that their personal and/or family life is important
- Improvements in employee mental health and well-being

Question: How does time spent working affect and interact with other quality of life indicators?



Years of Schooling vs. Average Working Hours

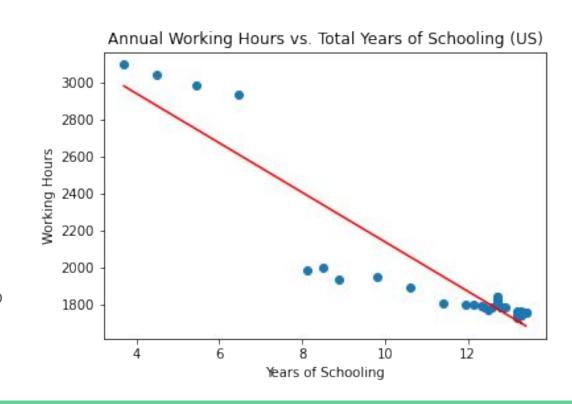
Question: Is there a relationship between years of school and working hours?

Null Hypothesis: There is no relationship between years of schooling and working hours.

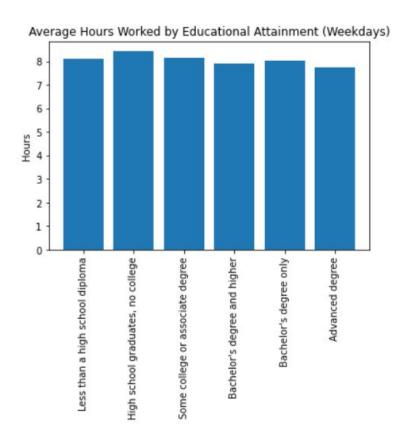
$$y = -133.39x + 3474.69$$

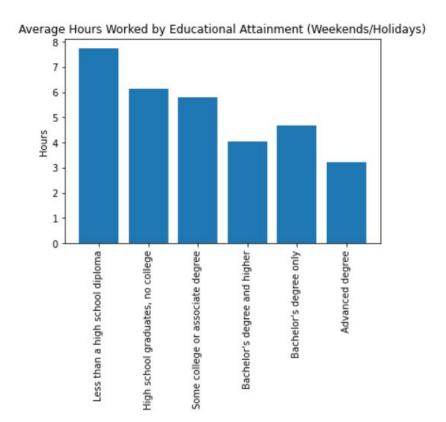
R-squared = 0.8592

Results: Reject the null hypothesis. There is a strong negative relationship between years of schooling and working hours.



Educational Attainment vs. Average Working Hours





Chi-Square: Educational Attainment vs. Working Hours

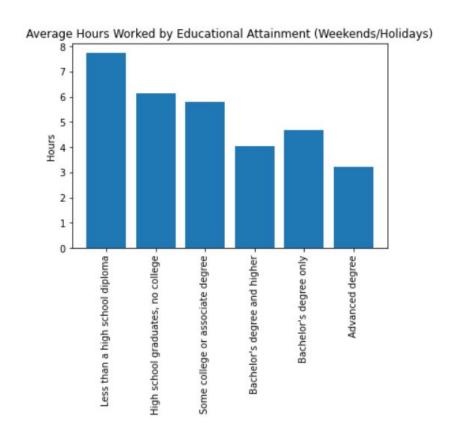
Question: Does educational attainment impact time spent working weekends and holidays? Is there a significant difference between these groups?

Null Hypothesis: There is no significant difference in average hours spent working weekends and holidays between groups of educational attainment.

Critical Value= 11.07

Chi-Squared = 2.48 p-value= 0.778

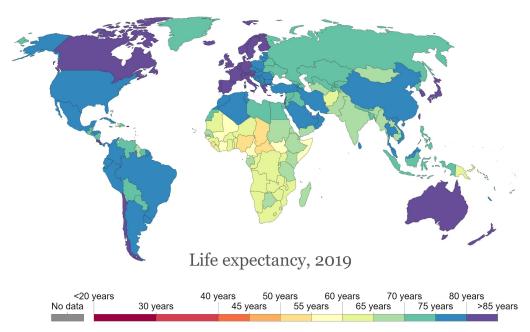
Results: Fail to reject the null hypothesis. There is no statistically significant difference between educational attainment and hours spent working weekends and holidays.



Work-Life Balance: Life Expectancy (U.S.)

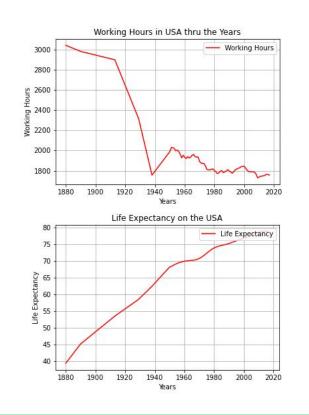
Life expectancy is the key metric for assessing population health, it captures the mortality along the entire life course. It tells us the average age of death in a population.

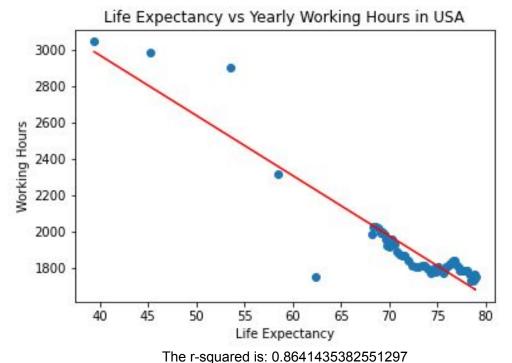
Is there a relationship between working hours and Life Expectancy?



Source: Max Roser, Esteban Ortiz-Ospina and Hannah Ritchie (2013) - "Life Expectancy". Published online at OurWorldInData.org. Retrieved from: 'https://ourworldindata.org/life-expectancy'

Work-Life Balance: Life Expectancy (U.S.): Analysis





Work-Life Balance: Life Expectancy (U.S.): Considerations



Work-Life Balance: Unemployment rate (U.S.)

Unemployment refers to the share of the labor force that is without work but available for and seeking employment. Definitions of labor force and unemployment differ by country.

Is there a relationship between working hours and Unemployment Rate?

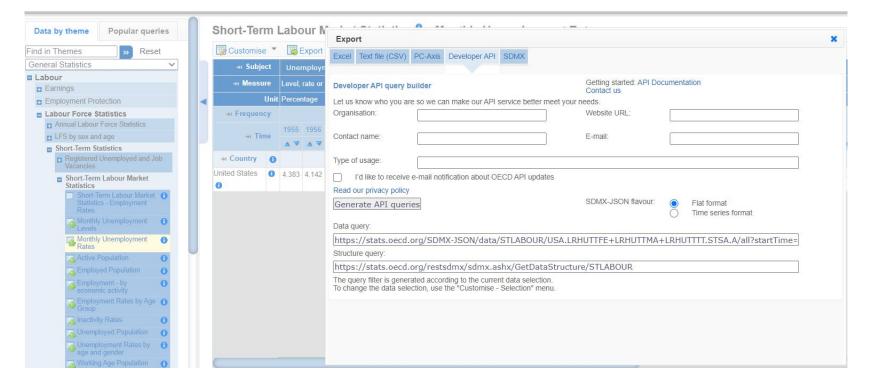


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Work-Life Balance: Unemployment rate (U.S.)

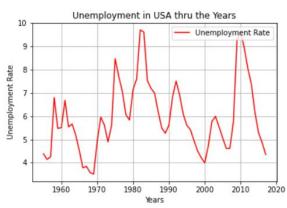
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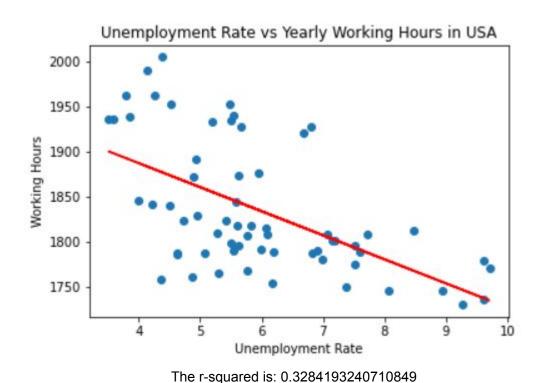




Work-Life Balance: Unemployment rate (U.S.)



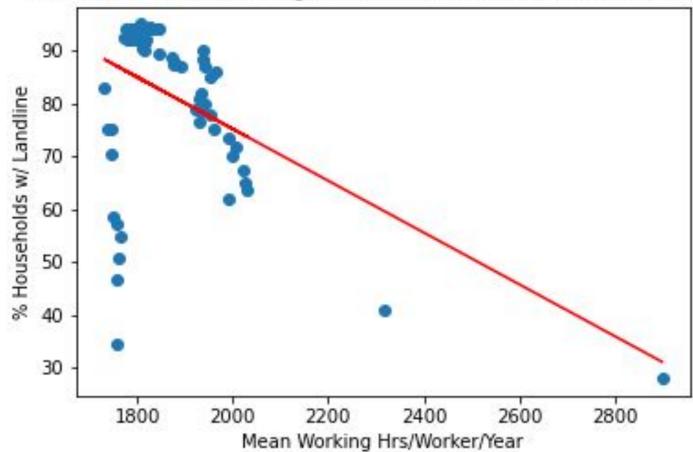




Work-Life Balance: Unemployment rate (U.S.): Considerations

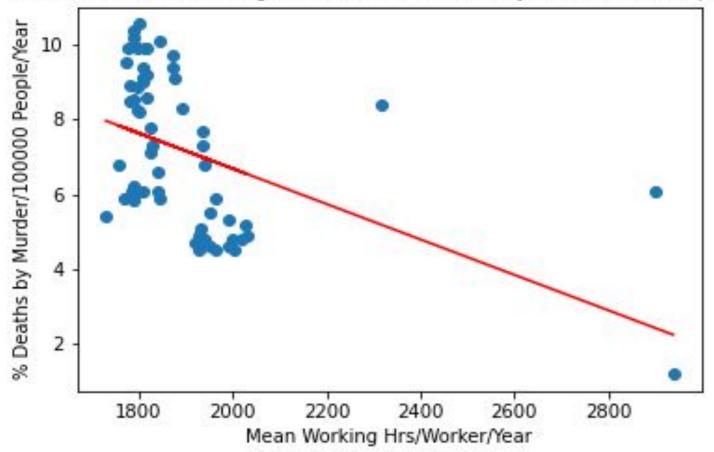


US 1903-2017: Mean Working Hrs/Worker/Year vs. % Households w/ Landline



y=-.049x+172.963 r=-.497 r^2=.247

US 1900-2009: Mean Working Hrs/Worker/Year vs. Deaths by Murder/100000 People/Year



y=-.005x+16.157 r=-.471 r^2=.222