UK Data Service

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Teaching Idea: Measuring the Gender Gap in Life Satisfaction using the Opinions and Lifestyle Survey

Key idea: This teaching idea explores whether there are significant differences between the self-reported life satisfaction of men and women and if these differences are constant across the life-span.

Keywords: Life satisfaction, Well-being, Gender, Age, Means, T-test, ANOVA, Histograms

Background

Research shows that, despite great progress over recent decades, gender differences persist across various social indicators, e.g. access to the labour market, earnings and education (Blau & Kahn, 2016; Kleven & Landais, 2016). As these social measures affect well-being, such differences may mean significant gender differences in well-being outcomes with women faring worse. In addition, existing research suggests a U-shape association between age and life satisfaction, where younger and older populations tend to be more satisfied than middle-aged ones (Blanchflower & Oswald, 2008). It may therefore be useful to explore the additional impact of age on the association between gender and well-being.

Research question: Are women less satisfied than men with their life across the life course?

Data: SN 7913 Opinions and Lifestyle Survey, Well-Being Module, April-May 2015: Unrestricted Access Teaching Dataset

The Opinions and Lifestyle Survey is a monthly survey run by the Office for National Statistics (ONS). Using a random sample design it collects data from individuals aged 16 and over living in households in Britain. It asks its respondents about various topics which are too brief to warrant full surveys of their own. Topics have included climate change, working conditions, tobacco consumption, and disability, to name some. Each month's questionnaire consists of two elements: Core demographic questions that remain consistent each month, and non-core questions that vary from month to month. The non-core questions for the months April-May 2015 regard personal well-being (Module MCZ). Respondents were asked to rate their feelings towards different aspects of their lives using a scale of 0-10, where 0 is low and 10 is high.

Variables of Interest

Variable	Name in dataset	Categories and codes
Satisfaction with life nowadays	MCZ_1	Scale ranging from 0 (low) to 10 (high)
Extent to which feels things they do in life are worthwhile	MCZ_2	Scale ranging from 0 (low) to 10 (high)
How happy felt yesterday	MCZ_3	Scale ranging from 0 (low) to 10 (high)
How anxious felt yesterday	MCZ_4	Scale ranging from 0 (low) to 10 (high)
Satisfaction with family relationships including partner	MCZ_5	Scale ranging from 0 (low) to 10 (high)
Satisfaction with physical health	MCZ_7	Scale ranging from 0 (low) to 10 (high)
Satisfaction with mental well-being	MCZ_8	Scale ranging from 0 (low) to 10 (high)
Satisfaction with well-being of child/children	MCZ_9	Scale ranging from 0 (low) to 10 (high)
Satisfaction with financial situation	MCZ_10	Scale ranging from 0 (low) to 10 (high)
Satisfaction with work situation	MCZ_11	Scale ranging from 0 (low) to 10 (high)
Satisfaction with work-life balance	MCZ_13	Scale ranging from 0 (low) to 10 (high)
Satisfaction with local area where live	MCZ_17	Scale ranging from 0 (low) to 10 (high)
Gender	RSEX	Male (1); Female (2)
Age	AGEXr	16-24 (1); 25-44 (2); 45-54 (3); 55-64 (4); 65-74 (5); 75 and over (6)

Data Analysis

1. Using an appropriate graphic (e.g. histogram), explore the distribution of each of the well-being measures. Which measures have positively or negatively skewed scores? Do any represent a normal distribution of data?
2. Explore the relationship between the different measures of well-being using Pearson correlation. Which measures might you be able to combine into a multi-item scale?
3. Compare the mean scores on each measure of well-being, first by gender and then by age group. Using an appropriate test (e.g. t-test, ANOVA) measure whether these differences are statistically significant.
4. Having identified those measures of well-being for which men and women have significantly different means, compare these means for men and women for each separate age group. Are the differences between the means smaller or larger for different age groups? Consider why the size of these differences might change.
5. For the sample as a whole, there was no significant difference between the mean scores of men and women on the measure of anxiety. However, when controlling for age group, a significant gender difference is found for the 45 to 54 age group. Consider why this might be so.

Access the SPSS syntax commands for each of these exercises: https://discover.ukdataservice.ac.uk/catalogue/?sn=7913&type=Data%20catalogue#syntax

Example Results

	Mean extent to which feels that things done in life are worthwhile			Mean feeling of anxiety yesterday			Mean satisfaction with financial situation			Mean satisfaction about balance between work and life		
	Male	Female	Sig.	Male	Female	Sig.	Male	Female	Sig.	Male	Female	Sig.
16-24	7.22	7.97	*	2.75	3.06		5.68	6.46		6.49	6.95	
25-44	7.67	8.01	*	2.96	3.02		6.27	6.59		6.17	6.99	**
45-54	7.66	7.90		2.48	3.46	**	6.59	6.8		6.74	6.98	
55-64	7.56	8.19	**	2.87	2.73		6.85	7.47	*	7.29	7.47	
65-74	8.12	8.28		2.38	2.48		8.22	7.66	**	8.17	8.41	
75+	8.03	7.76		2.67	2.38		8.20	8.18		8.00	9.00	
All	7.73	8.03	**	2.72	2.86		6.92	7.17	*	6.64	7.15	**

Further Ideas

Create a linear regression model with the measure 'Overall, how satisfied are you with the balance between the time spent on paid job and the time spent on other aspects of life?' as the dependent variable. Use measures of gender and age, along with any other appropriate socio-demographic measure, as predictors in the model.

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References:

Blau, F.D. & Kahn, L.M. (2016) *The Gender Wage Gap: Extent, Trends and Explanations.* IZA Discussion Paper No. 9656.

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