Assignment 2: Interpreting Quantitative Findings

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1 Introduction

In 1998, the Good Friday/Belfast Agreement was signed and later validated by the voters, and this agreement marked a new era of hope towards peace, equality, and inclusion in Northern Ireland (Galligan 2013). The main focus on the agreement and referendum was obviously to stop the violent conflict and seek peace, but one part of the agreement also emphasized an equality agenda (Hayward 2021). Thus, the agreement also marked the first Northern Irish formal recognition of women's rights to political inclusion (Galligan 2013). However, a formal recognition does not necessarily imply that gender equality trickles down into social norms and practices. Therefore, this report examines the contemporary state of women's equality in Northern Ireland.

Perhaps, the most central concept within gender equality is the *gender pay gap*. Disparities in income is an important indicator for gender equality, because it has social, economic, and physiological consequences (Bishu and Alkadry 2017). Research on this area have identified several factors that seems to influence a gender pay gap. One such factor can be inequality in access to workplace authority, where women are denied manager or supervisor position although there were equally qualified (Bishu and Alkadry 2017). Other factors can be discrimination in hiring or promotion processes, but also lack of gender representation can avoid minorities to even apply for a job or promition (Bishu and Alkadry 2017).

Deductive (Bryman 2016, 33)

2 Data and method

We employ a cross-sectional design (Bryman 2016, 53)

2.1 Sample and Data Collection

Two-tailed t-test [fogarty2018quantitative 156] Chi-squared test [fogarty2018quantitative 176] Multiple linear regression with OLS [fogarty2018quantitative 192ff]

Table 1: Descriptive Statistics for Cleaned and Full Sample (Categorical Variables)

Variable	Cleaned Sample		Full Sample		
	N	Percent	N	Percent	Test
Sex	675		1204		X2=1.022
... Male	284	42.1%	537	44.6%	
... Female	391	57.9%	667	55.4%	
Religion	675		1168		X2=0.849
... Catholic	277	41%	491	42%	
... Protestant	283	41.9%	497	42.6%	
... No religion	115	17%	180	15.4%	
Sexual Orientation	675		1191		X2=3.039
... I am heterosexual or straight	657	97.3%	1173	98.5%	
... I am gay or lesbian (homosexual)	14	2.1%	14	1.2%	
... I am bi-sexual	2	0.3%	2	0.2%	
... Other	2	0.3%	2	0.2%	
Constitutional View	675		1183		X2=0.347
... Unionist	199	29.5%	348	29.4%	
... Nationalist	138	20.4%	255	21.6%	
... Neither	338	50.1%	580	49%	
Trade union membership	675		1179		X2=9.162***
... Yes	301	44.6%	440	37.3%	
... No	374	55.4%	739	62.7%	
Supervisor: No	675		883		X2=0.143
... Yes	211	31.3%	267	30.2%	
... No	464	68.7%	616	69.8%	

Note:

Statistical significance markers: * p<0.1; ** p<0.05; *** p<0.01

Table 2: Descriptive Statistics for Cleaned and Full Sample (Numerical Variables)

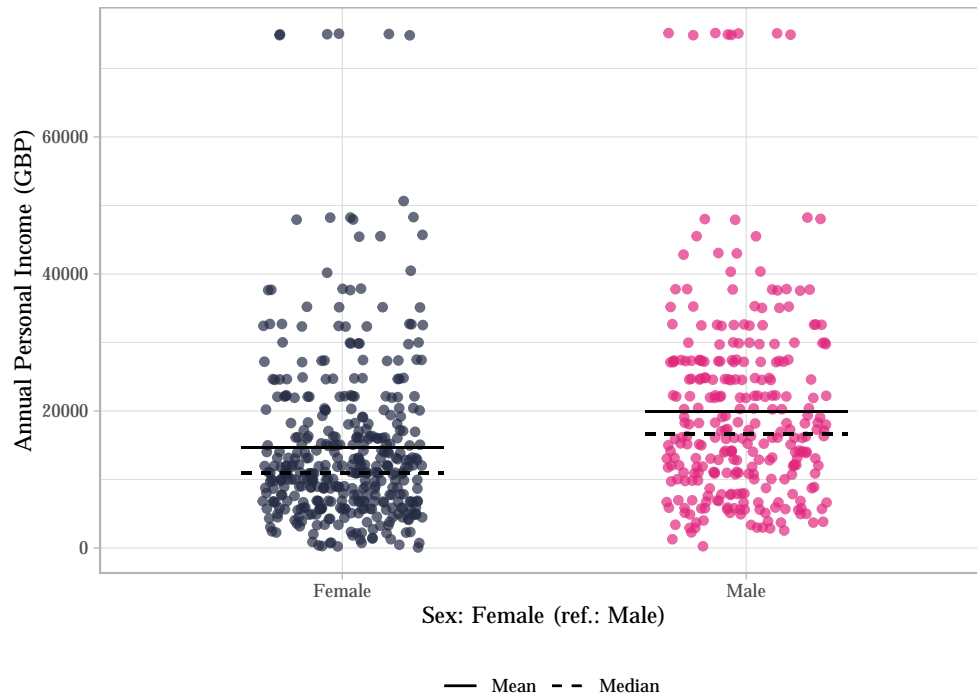| Variable	Cleaned Sample			Full Sample			
	N	Mean	SD	N	Mean	SD	Test
Annual Personal Income (GBP)	675	16892.089	13447.704	897	16394.582	13465.9	F=0.526
Age	675	46.763	17.117	1201	49.615	18.53	F=10.81***

Note:

Statistical significance markers: * p<0.1; ** p<0.05; *** p<0.01

2.2 Dependent and Independent Variables

Levels of measurement: nominal, ordinal, interval, and ratio (Fogarty 2018, 56)

Figure 1: Scatterplot of Income and Sex

Note:
The points are jittered on the x-axis for the purpose of visualization.
There are only two categories for this question.

3 Results and discussion
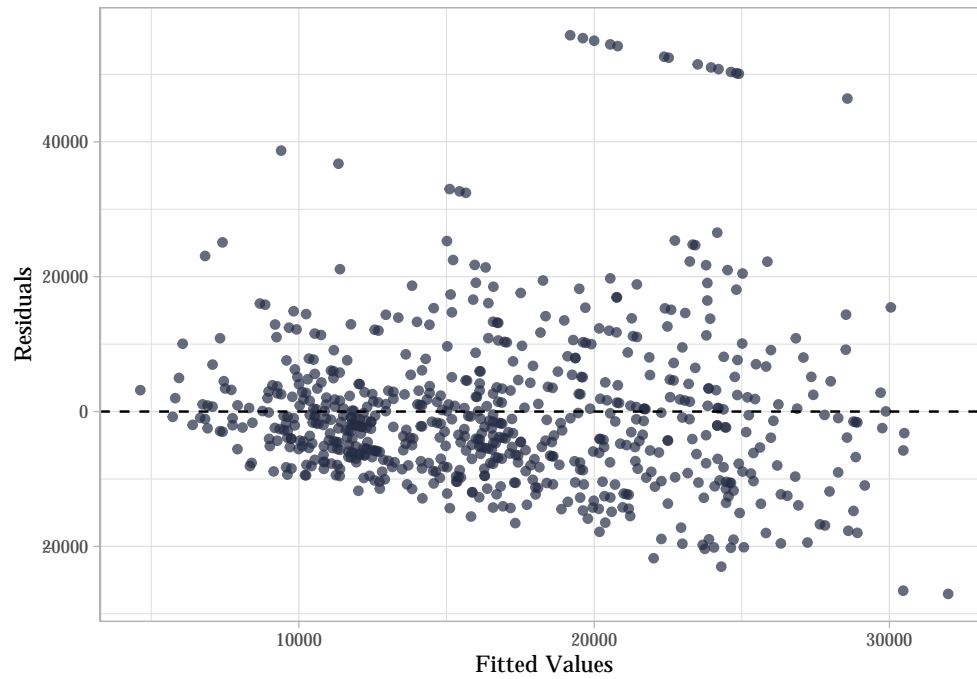
Here comes the regression.

Table 3: Regression results

	Dependent Variable
	Annual Personal Income (GBP)
Sex: Female (ref.: Male)	−5,068.737***
	(994.748)
Religion: Protestant (ref.: Catholic)	465.188
	(1,458.367)
Religion: No religion	895.169
	(1,533.323)
Sexual Orientation: Homosexual (ref.: Heterosexual)	−6,247.777*
	(3,437.048)
Sexual Orientation: bi-sexual	−2,826.980
	(8,698.806)
Sexual Orientation: Other	1,323.336
	(8,737.282)
Constitutional View: Nationalist (ref.: Unionist)	1,788.873
	(1,898.294)
Constitutional view: Neither	1,438.036
	(1,350.423)
Trade union membership: No (ref.: Yes)	−5,277.978***
	(977.008)
Supervisor: No (ref.: Yes)	−8,648.320***
	(1,037.559)
Age	−84.369***
	(29.430)
Constant	31,343.540***
	(2,488.067)
Observations	675
R^2	0.183
Adjusted R^2	0.170
Residual Std. Error	12,252.840 (df = 663)
F Statistic	13.533*** (df = 11; 663)
Note:	*p<0.1; **p<0.05; ***p<0.01

Influential data points / outliers [fogarty2018quantitative 221-222]

3.1 Check for Heteroscedasticity

Here comes a check for heteroscedasticity.

Figure 2: Scatterplot of Fitted Values and Residuals

Method	Statistic	P value	Parameter
BreuschPagan test	133.494	0	11

3.2 Reliability and Validity

Reliability and validity (Bryman 2016, 41) Internal and external validity (Bryman 2016, 41–42)

4 Conclusion

References

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