

Effect of Literacy and Age at Marriage on Family Size in Portugal

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1 Introduction

This study aims to investigate how literacy and the age at marriage affect family size in Portugal using data from the 1979 fertility survey. Prior research has shown that literacy and socio-economic factors play a significant role in determining fertility rates. [Cite relevant literature here].

2 Method

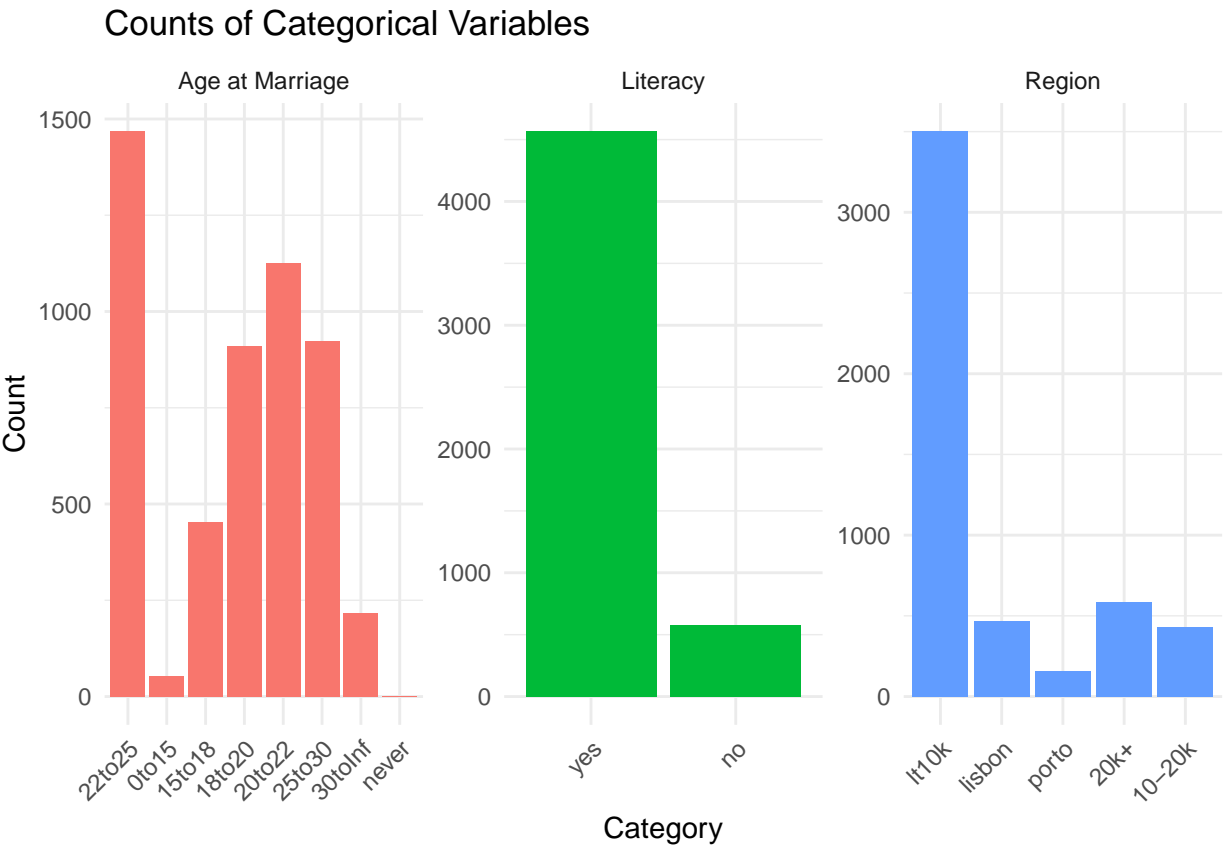
We use a Generalized Linear Model (GLM) with a Poisson distribution to model the number of children per family, accounting for potential overdispersion using a quasi-Poisson or negative binomial approach.

3 Result

3.1 Statistical Summary

Table 1: Summary Statistics of Key Variables

Statistic	Age	Children	Pregnancies	Sons
Min	15.00	0.00	0.00	0.00
1st Quartile	28.75	1.00	1.00	0.00
Median	36.00	2.00	2.00	1.00
Mean	35.30	2.26	2.28	1.19
3rd Quartile	43.00	3.00	3.00	2.00
Max	49.00	17.00	16.00	10.00



Model Selection

Table 2: Model Coefficients from Poisson Regression

	Estimate	Std_Error	P_Value
(Intercept)	0.7497986	0.0192218	0.0000000
literacyno	0.6118427	0.0236929	0.0000000
ageMarried0to15	0.2650999	0.0795805	0.0008647
ageMarried15to18	0.1778738	0.0339432	0.0000002
ageMarried18to20	0.1096437	0.0277073	0.0000758
ageMarried20to22	0.0612084	0.0264325	0.0205773
ageMarried25to30	-0.0317084	0.0287262	0.2696730
ageMarried30toInf	-0.4348474	0.0588057	0.0000000
regionlisbon	-0.2939284	0.0369338	0.0000000
regionporto	-0.0172328	0.0533926	0.7468802
region20k+	-0.2376056	0.0326474	0.0000000
region10-20k	-0.1386546	0.0355903	0.0000979

Table 3: Model Coefficients from Poisson Regression with Offset

	Estimate	Std_Error	P_Value
(Intercept)	-4.2132392	0.0192077	0.0000000
literacyno	0.1290649	0.0236803	0.0000001
ageMarried0to15	0.0395892	0.0795358	0.6186580
ageMarried15to18	0.0749467	0.0339678	0.0273554
ageMarried18to20	0.0596534	0.0277193	0.0313934
ageMarried20to22	0.0238498	0.0264467	0.3671601
ageMarried25to30	0.0186610	0.0287180	0.5158202
ageMarried30toInf	0.0290471	0.0587658	0.6211049
regionlisbon	-0.2776651	0.0369590	0.0000000
regionporto	-0.0938046	0.0533865	0.0789033
region20k+	-0.2944794	0.0326518	0.0000000
region10-20k	-0.1616332	0.0356119	0.0000057

4 Conclusion