

# Gender, Education, and Mental Depression\*

## Analyzing Census Data Through Statistical Methods

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First sentence. Second sentence. Third sentence. Fourth sentence.

## 1 Introduction

Key questions include: Does higher education levels correlate with lower rates of depression? Are women disproportionately affected by depression compared to men at the same educational level?

Overview paragraph

Estimand paragraph

Results paragraph

Why it matters paragraph

Telegraphing paragraph: The remainder of this paper is structured as follows. Section 2....

## 2 Data

The data for this study is drawn from national census data, which includes variables for gender (male/female), education level (from grade 1 to doctoral degree), and mental depression (no/yes). The sample consists of individuals age (FILL THIS IN AND WHY WE CHOSE THIS).

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\*Code and data are available at: [https://github.com/RohanAlexander/starter\\_folder](https://github.com/RohanAlexander/starter_folder).

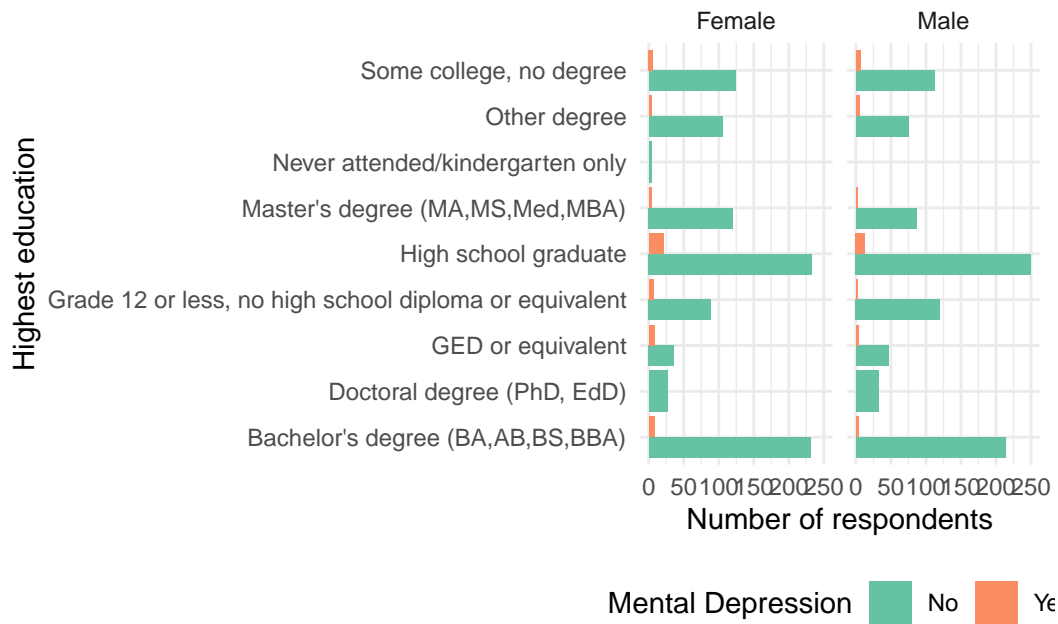


Figure 1: Education

## 2.1 Overview

We use the statistical programming language R (R Core Team 2023).... Our data (Toronto Shelter & Support Services 2024).... Following Alexander (2023), we consider...

### 2.1.1 Gender and Mental Health

Research consistently shows that women report higher rates of depression than men (CITE). Biological, social, and psychological factors contribute to this disparity. Women may experience unique stressors, such as role strain from balancing work and family obligations, as well as being subject to gender-based discrimination (CITE). These pressures can exacerbate mental health issues, leading to higher rates of depression among women, particularly those in lower socioeconomic or educational strata.

### 2.1.2 Educational Attainment and Mental Health

Education is often seen as a protective factor against mental health issues. Studies suggest that higher levels of education correlate with improved mental health outcomes (CITE). Educated individuals tend to have better access to mental health resources, higher socioeconomic status, and greater job security, all of which contribute to lower rates of depression (CITE). (DO WE WANT DATA ON HEALTH CARE COVERAGE/INSURANCE HERE?) Conversely, those

with lower education levels may face more financial strain, reduced employment opportunities, and limited access to healthcare, increasing their vulnerability to depression.

### **2.1.3 Intersection of Gender, Education, and Depression**

Despite the protective nature of education, the gender gap in mental health persists even at higher levels of educational attainment. Some studies suggest that women with high education levels still experience depression due to external stressors, including workplace discrimination and societal expectations (CITE). Additionally, the mental health benefits of education may differ between genders, with men benefiting more from the social status and economic opportunities that education provides, while women may continue to face challenges related to gender roles (cite).

## **2.2 Methodology**

### **2.2.1 Statistical Techniques**

This study employs the following statistical techniques:

- Descriptive statistics : These will summarize the distribution of education levels and depression rates across genders.
- Logistic regression: We will use logistic regression to examine how education level and gender predict the likelihood of experiencing depression, controlling for other demographic factors like age and income.

### **2.3 Measurement**

Some paragraphs about how we go from a phenomena in the world to an entry in the dataset (that is talk about the data was collected).

### **2.4 Outcome variables**

Add graphs, tables and text. Use sub-sub-headings for each outcome variable or update the subheading to be singular.

Talk more about it.

Talk way more about it.

## **2.5 Predictor variables**

Add graphs, tables and text.

Use sub-sub-headings for each outcome variable and feel free to combine a few into one if they go together naturally.

## **3 Model**

The goal of our modelling strategy is twofold. Firstly,...

### **3.1 Model set-up**

#### **3.1.1 Model justification**

We expect a positive relationship between education level and

## **4 Results**

## **5 Discussion**

### **5.1 Gender Differences in Depression**

The finding that women report higher rates of depression across all educational levels aligns with existing literature. This disparity can be attributed to a variety of factors, including biological differences in stress response and the disproportionate burden women face in managing work-life balance (CITE). Additionally, women may be more likely to seek help and report depressive symptoms, contributing to higher rates in survey data (CITE).

### **5.2 Education as a Protective Factor**

The results support the hypothesis that education serves as a protective factor against depression. Those with higher education levels enjoy greater access to economic and social resources, reducing the risk of depression (CITE). However, the persistent gender gap in mental health, even among those with higher education, suggests that education alone is insufficient to fully mitigate the effects of gender-based stressors and societal pressures on women (CITE AND CHECK MY FACTS HERE).

### **5.3 Intersectionality and Mental Health**

The intersection of gender and education highlights the complexity of mental health outcomes. Women with lower education levels are doubly disadvantaged, experiencing both the socioeconomic limitations of low education and the additional burdens associated with gender. Future research should explore how other intersecting factors, such as race and socioeconomic status, further influence the relationship between education and mental health.

### **5.4 Weaknesses and next steps**

Weaknesses and next steps should also be included.

## **6 Conclusion**

This paper has demonstrated that both education and gender play crucial roles in shaping mental health outcomes, particularly depression.[ETC FILL THIS IN]

## **Appendix**

### **A Additional data details**

### **B Model details**

#### **B.1 Posterior predictive check**

#### **B.2 Diagnostics**

## References

- Alexander, Rohan. 2023. *Telling Stories with Data*. Chapman; Hall/CRC. <https://tellingstorieswithdata.com/>.
- R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Toronto Shelter & Support Services. 2024. *Deaths of Shelter Residents*. <https://open.toronto.ca/dataset/deaths-of-shelter-residents/>.