Caroline El Jazmi Andy Comfort Evan Chard TCSS 445 A 08/18/2023

# Sleep Health Gender Prototypes

#### Content

- Screenshot of the front-page
- Screenshot of the 4 additional pages representing each query
  - Stress and Blood Pressure Analysis
  - Physical Activity Impact on Sleep Quality
  - Sleep Disorder by Occupation
  - Sleep Quality by Location
- Data tables located from each of the additional pages
  - o Examples of data filter feature for each gender in all tables
  - Examples query Specific data filter to assist the user in analyzing patterns regarding query specific variables and their impact on sleep.
- Example of Column heading displaying detail about the data stored in the tuples of the column (when the user hovers their mouse over the '?' symbol.

Front Page

Stress and Blood Pressure Analysis Physical Activity Impact on Sleep Quality Sleep Disorders by Occupation Sleep Quality by Location



# Sleep, Health, and Gender Study

#### **GOAL**

Our goal is to analyze the relationship among sleep health factors within a population, with a specific focus on both the female and male genders. This analysis relies on the provided associations found in the Sleep & Health dataset. To achieve this, we will utilize the Sleep Health and Lifestyle dataset. Our investigation will delve into how different variables such as blood pressure, stress levels, sleep duration, physical activity levels, and location correlate with sleep quality, sleep disorders, and other significant factors for each gender.

#### **PROJECT DESCRIPTION**

Our primary aim is to uncover patterns, similarities, and distinctions in the manner specific variables impact the overall sleep health and well-being of each gender. By conducting an analysis of sleep disorders categorized by occupation and gender, evaluating sleep quality relative to location and gender, studying the influence of physical activity on sleep quality in relation to gender, as well as exploring stress and blood pressure data, we intend to extract valuable insights regarding the potential effects of sleep on various health parameters. These findings can subsequently be applied to formulate strategies that endorse healthy sleep habits, identify at-risk communities within each gender, and potentially contribute to the development of interventions or treatments targeting sleep-related health issues.

#### **MEET THE DEVELOPERS**

Andy Comfort - acomfort@uw.edu

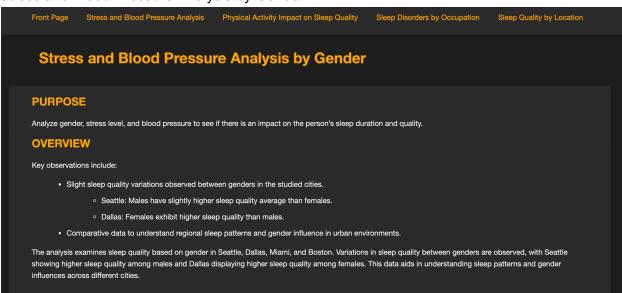
Evan Chard - echard@uw.edu

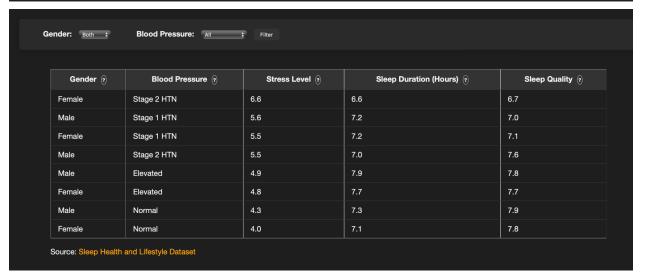


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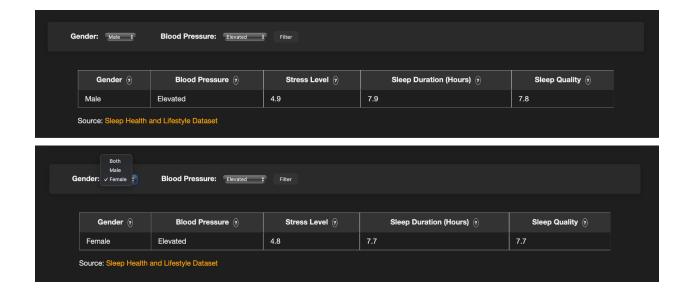


### Stress and Blood Pressure Analysis by Gender



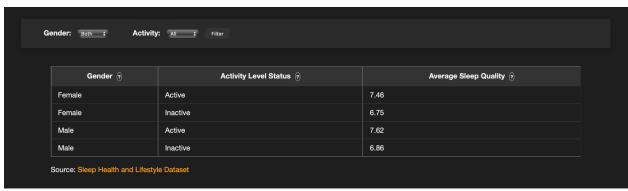


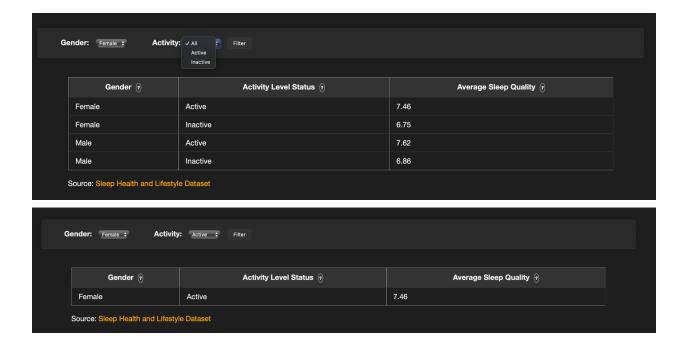
ender: Male ‡	Blood Pressure:  ✓ All  Normal  Elevated  Stage 1 HTN	Filter		
Gender (?)	Stage 2 HTN	Stress Level ②	Sleep Duration (Hours) 🤊	Sleep Quality 🤊
Female	Stage 2 HTN	6.6	6.6	6.7
Male	Stage 1 HTN	5.6	7.2	7.0
Female	Stage 1 HTN	5.5	7.2	7.1
Male	Stage 2 HTN	5.5	7.0	7.6
Male	Elevated	4.9	7.9	7.8
Female	Elevated	4.8	7.7	7.7
Male	Normal	4.3	7.3	7.9
Female	Normal	4.0	7.1	7.8



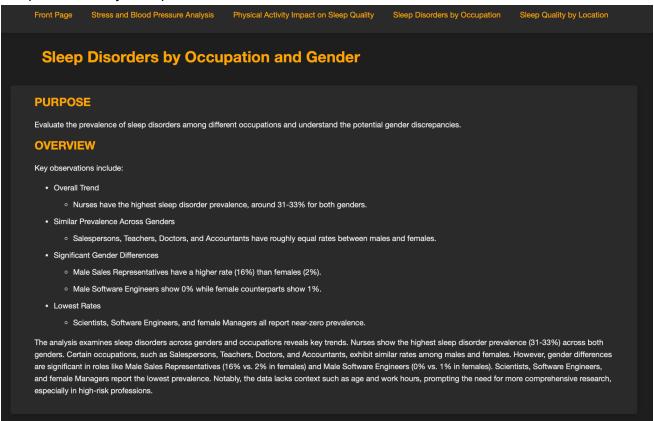
# Physical Activity Impact on Sleep Quality and Gender

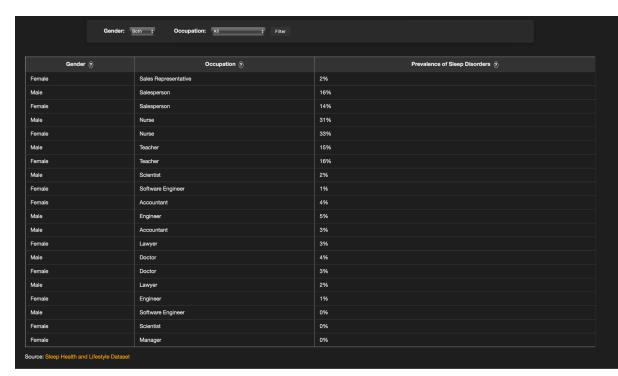






## Sleep Disorders by Occupation and Gender

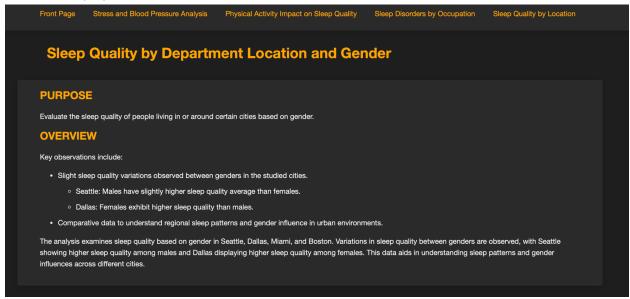


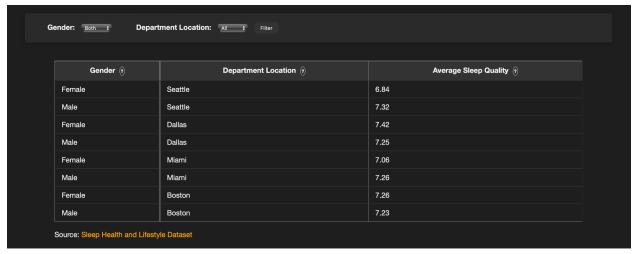


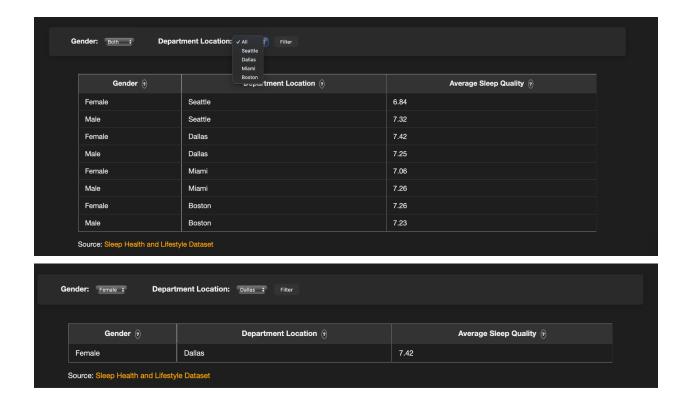
		Software Engineer		
Gender (?)		Doctor Sales Representative Teacher		Prevalence of Sleep Disorders (?)
Female	Sales Representative	Nurse Engineer	2%	
Male	Salesperson	Accountant	16%	
Female	Salesperson	Scientist Lawyer	14%	
Male	Nurse	Salesperson Manager	31%	
Female	Nurse		33%	
Male	Teacher		15%	
Female	Teacher		16%	
Male	Scientist		2%	
Female	Software Engineer		1%	
Female	Accountant		4%	
Male	Engineer		5%	
Male	Accountant		3%	
Female	Lawyer		3%	
Male	Doctor		4%	
Female	Doctor		3%	
Male	Lawyer		2%	
Female	Engineer		1%	
Male	Software Engineer		0%	
Female	Scientist		0%	
Female	Manager		0%	



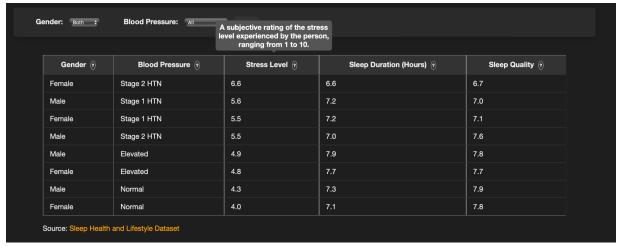
## Sleep Quality by Department of Location and Gender







Example of Column heading displaying detail about the data stored in the tuples of the column (when the user hovers their mouse over the '?' symbol.



der: Both ‡	Blood Pressure: All : Filter  The blood pressure measurement of the person.							
Gender (?)	Blood Pressure (9)	Stress Level (2)	Sleep Duration (Hours) $\widehat{\it o}$	Sleep Quality $\widehat{\varrho}$				
Female	Stage 2 HTN	6.6	6.6	6.7				
Male	Stage 1 HTN	5.6	7.2	7.0				
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