Attractive people, Attractive jobs*

The influence of attractiveness on Employment in the United States (2023)

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This paper delves into the relationship between attractiveness and employment, exploring how various factors such as individual characteristics, skills, and demographics intersect with physical appearance, educational background and gender to influence the hiring process and subsequent career success. Our study makes use of data sourced from the University of Toronto dataverse, and reveals interesting insights into the role of attractiveness in shaping employment outcomes and the status of jobs. Our findings suggest that most socio-demographic attractiveness including appearance, education and sex can have a significant impact on both the hiring process and long-term career, highlighting its relevance in employment and hiring sessions. Additionally, this paper emphasizes the importance of considering a broader range of factors beyond attractiveness alone when predicting employment outcomes as physical, educational background and gender with the correlation of those variables.

Table of contents

*Code and data are available at: https://github.com/sjp2023/beauty-standard.git

1 Introduction

Beauty, as attractiveness, becomes the standard of everything in modern society as evolving into a global conversation from body shapes, and flawless skin to ideal face which influences towards individual and social-cultural perspectives. These standards are being as the measurements of ourselves and others. For a long time, attractiveness has provided important aspects of human interaction. It shapes the judgement about people as impacting on first impression when meeting people for the first time and may have the stereotype of what is the person like. Furthermore, the attractiveness of people influences individuals' education, and gender not only viewing physical shapes. As a result, these types of attractiveness are creating bias, particularly in employment. The attractive workers earn 10 to 15 percent more than average or low-looking groups (Chand 2023). Even in the diverse environmental workforce of the United States, the interplay between personal attractiveness and professional success is deeply connected. The way attractiveness could shape and lead to the outcome of employment has been created by society and raised interest among scholars, researchers, and the general regarding the impact of those connections (Ruffle and Shtudiner 2014).

This research paper investigates the importance of the relationship between attractive people and employment for both the hiring process and success in the United States where the land of diversity and opportunity. I utilized a data set from 2023 U.S. data from "The University of Toronto Dataverse of Borealis" to conduct the data and analyze the connection between the attractiveness of people and employment regarding gender, physical and education. The estimand explored from this paper is, how people's attractiveness impacts employment with measured for 1 and 0 of classification 1 being yes, 0 being no with physical, educational and gender attractiveness with the employment correlations.

Key variables found from this analysis are 2023 data of the employment rates with the physical, educational and gender attractiveness regardless of individual's skills, personalities and techniques that may support for being a success in the positions in the U.S., as it needs to

be filled a clear gap of how does attractiveness influence the hiring process and being employed in the organization. So far, we found that attractiveness will affect the employment regarding skills, and characteristics that may be the outlines for the research and how it impacts on composite, interview and offers but with our focused area, we were interested in attractiveness and employment rate. The findings in this paper highlight a deep connection between beauty/attractiveness and employment in the U.S. as well as the important points since beauty will affect an individual's first impression and provides others' feelings and stereotypes. Understanding this relationship will help to acknowledge the wrong side of society and may provide solutions for the researchers and policymakers or in general to provide the right facts of attractiveness and employment.

This paper is structured into the following sections: Section 2 as Data with Data Measurement, Data Source, and each data set of Physical Attractiveness, Educational Attractiveness, and Gender Attractiveness as presented as table for a simple and easy view of the data, and Section 3 shown as Results of the analysis data of dataset graph based on Section 2 table dataset and Section 4 providing Discussion of the implications of findings from the data set and the weakness of this paper with its next and further steps for the future study about this topic.

2 Data

In this paper, Section 2.1 will mention the data measurement used in creating this paper and Section 2.2 will provide the resources to gather the data and information that we used to create the table sets and graphs for the results. Also, there will be three other sections of datasets used; the first dataset, Section 2.3 contains the dataset of physical attractiveness and employment in 2023 in the United States. The following section which is Section 2.4 shows the educational attractiveness dataset as the second data. The last dataset, Section 2.5, presents the relationship between employment and gender attractiveness.

2.1 Data Measurement

This paper utilizes based on R, as the statistical Programming language (R Core Team 2023) along with the tidyverse (Wickham et al. 2019), palmerpenguins (Horst, Hill, and Gorman 2020), arrow (Richardson et al. 2024), ggplot2 (Wickham 2016), kableExtra (ORCID et al. 2024), tbble (Müller and Wickham 2023), readr (Wickham, Hester, and Bryan 2024), knitr (Xie 2018) and dplyr (Wickham et al. 2023) packages for generating the figures, tables and read the data for this papaer.

2.2 Data Source

This dataset, published by University of Toronto Dataverse (Marquis, Tilcsik, and Zhang 2023) was extracted and collected the information by survey randomly from the United States in 2023 published by the University of Toronto Dataverse as part of the paper named "Attractiveness and Attainment: Status, Beauty, and Jobs in China and the United States" by Christopher Marquis, Andras Tilcsik and Ying Zhang in 2023 for gathering the data about the attractiveness, gender and employments to compare those variables to present the relationship with the attractiveness and employments with recruited 2,500 participants had hiring experiences with bachelor's degree or higher educations, with the surveys and in total, 2,020 responses as the final samples, reached up after excluded some conditions including not completed surveys, failed to verified captcha questions and finished the survey in less than a minutes (Marquis, Tilcsik, and Zhang 2023). In each dataset, 0 and 1 are indicated as no and yes these meanings are the data sets and the variables are shown as 0 and 1 for each category's sections: - 0: not indicated as no for a column that belongs to the specific categories - 1: indicated as yes for a column that belongs to the specific categories

2.3 Physical Attractiveness Dataset

The dataset, referred to as Table 1 (Table 1), explores the relationship between physical attractiveness and employment outcomes, specifically concerning higher and lower-status job positions. Published by the (Marquis, Tilcsik, and Zhang 2023), this dataset comprises R Data updated through 2023 and draws from a comprehensive survey conducted among undergraduate students who have experienced for hiring process in the United States. Its primary objective is to explain the correlation between physical attractiveness and employment status, highlighting on how each factor influences the other. Notably, the dataset underscores the significance of physical beauty, a predominant aspect of attractiveness that often leaves a lasting impression and holds considerable sway in various social contexts, including the job market.

The physical attractiveness data used in this table is designated as the photos that were included in the resumes of each participant. Highly physical attractiveness is modified as USA beauty standard while less physical attractiveness is used the actual image of university students to compare the attractiveness and perceived of people (Marquis, Tilcsik, and Zhang 2023).

The dataset below this paragraph includes the following variables:

- Higher Status Job: Indication that an individual holds a higher status job.
- Lower Status Job: Indication that an individual holds a lower status job.
- Highly Attractive: Indication as an individual based on their perceived high level of physical attractiveness.
- Less Attractive: Indication as an individual based on their perceived lower level of physical attractiveness.

Table 1: The dataset containing physical attractiveness and the status of employment.

higherstatusjob	lowerstatusjob	highlyattractive	lessattractive
1	0	0	1
0	1	0	1
1	0	0	1
0	1	1	0
1	0	1	0
1	0	1	0
1	0	0	1
0	1	0	1
1	0	1	0
1	0	0	1

This dataset serves as a foundational resource for examining the intricate connection between physical attractiveness and employment outcomes. By delving into the complexities of modern job markets, it offers valuable insights into how attractiveness influences individuals, particularly within the context of hiring processes and HR team decision-making. For example, participant 1 who had high attractiveness had a higher status job while less attractiveness had lower status job like respondent 10 Table 1 (Table 1). This information, through thorough analysis, sheds light on the intricate dynamics at work, giving vital insight for stakeholders navigating the difficulties of modern employment and hiring process as follows the attractiveness.

2.4 Educational Attractiveness Dataset

Another dataset, indicated in Table 2 (Table 2), delves into the concept of educational attractiveness and its implications on job status as the hiring outcomes. In this section, we examine the relationship between educational attractiveness and job status, particularly focusing on the influence of attending an elite and non-elite university on securing higher-status job positions as mentioned in the table. This dataset is sourced from the experimental designed survey conducted among undergraduate students in the USA, aimed at exploring how educational background, especially, university background, impacts the perception of attractiveness in the context of hiring processes, furthermore, biased to get hired by the organization.

It mentioned above, the educational attractiveness data used in this table is sourced from the educational background of the resumes of each participant. To present and compare the educational attractiveness and perception of people for the hiring process, the researchers distinguished IVY League or well-known universities as higher universities, middle universities as some people know and lower universities are most people do not know (Marquis, Tilcsik, and Zhang 2023).

The educational dataset below this paragraph includes the following variables:

- Higher University: Indication as an individual attended very well-known or top 20 universities.
- Middle University: Indication as an individual attended some or few-known universities.
- Lower University: Indication as an individual attended not-known universities.
- Higher Status Job: Indication that an individual holds a higher status job.
- Lower Status Job: Indication that an individual holds a lower status job.

Table 2: The dataset containing educational attractiveness and the status of employment.

higheruni	middleuni	loweruni	higherstatusjob	lowerstatusjob
1	0	0	0	1
0	0	1	0	1
0	1	0	1	0
1	0	0	0	1
0	0	1	0	1
0	0	1	1	0
1	0	0	1	0
1	0	0	0	1
0	1	0	0	1
0	1	0	0	1

This dataset is a valuable resource for analyzing the relationship between educational attractiveness and employment outcomes during the hiring process. Examining modern job markets provides insights into how education affects hiring decisions and job prospects. For instance, most participants who attend higher universities have higher-status jobs compared with middle and lower-university participants (Table 2). Which, individuals who attended elite universities may have a higher chance of landing higher-status job positions than those who attended non-elite institutions. Through this dataset analysis, this table highlights and provides valuable guidance for stakeholders who have a difficult period or feel the unfairness of the hiring process these days with education.

2.5 Gender Attractiveness Dataset

In the last section of the data, Table 3, attributed to Table 3, investigates the complex interconnection between gender attractiveness and the status of jobs, mainly in relation to higher status and lower status of jobs depending on the individual's gender since gender is sensitive but viral argument topics for the various fields, mostly on the jobs or hiring process. Interestingly, this argument is continuous over 100 years but still, this is the main issue for having a job or hiring a person. This gender dataset was extracted from the survey conducted randomly

in 2023 in the various universities' in USA (Marquis, Tilcsik, and Zhang 2023) and will be derived from diverse groups of university students who have gone through various recruitment processes. Its main goal is to reveal the relationship between attractiveness and seniority in the job and to provide valuable insight into how gender expression affects people's perceptions in the job market.

The gender attractiveness dataset provides insights into the following variables:

- Male: Gender presentation of individuals categorized as male.
- Female: Gender presentation of individuals categorized as female
- Higher Status Job: Indication that an individual holds a higher status job.
- Lower Status Job: Indication that an individual holds a lower status job.

Table 3: The dataset containing gender attractiveness and the status of employment.

male	female	higherstatusjob	lowerstatusjob
0	1	0	1
0	1	0	1
1	0	1	0
1	0	1	0
1	0	0	1
0	1	0	1
1	0	1	0
1	0	0	1
0	1	0	1
0	1	1	0

This dataset is crucial for analyzing the connection between gender representation and job outcomes and supports conducting the graph in Section 3 to view the differences easily with the comparison of each component with insighting into how gender attractiveness affects recruitment decisions and job seekers' perceptions in the modern job market. As an example, in this dataset, the ratio of males who have higher-status jobs is higher than the female contribution in prominent jobs but females have more ratio in lower-status jobs.

3 Results

3.1 Hire because of physical Attractiveness

To determine the relationship between physical attractiveness and employment status per individual, a merged and summarized data set was created with variables for high attractiveness, less attractiveness and employment status (higher status job, lower status job) as shown in

Table 1 (see Table 1). Figure 1, the bar graph, shows the distribution of employment status across different levels of physical attractiveness as the individual examined using a sample of 100 observations randomly from the dataset. Each bar represents the count of individuals categorized based on their perceived level of attractiveness, with distinctions made between those holding higher-status jobs and those in lower-status positions. The x-axis denotes attractiveness levels, while the y-axis represents the count of individuals.

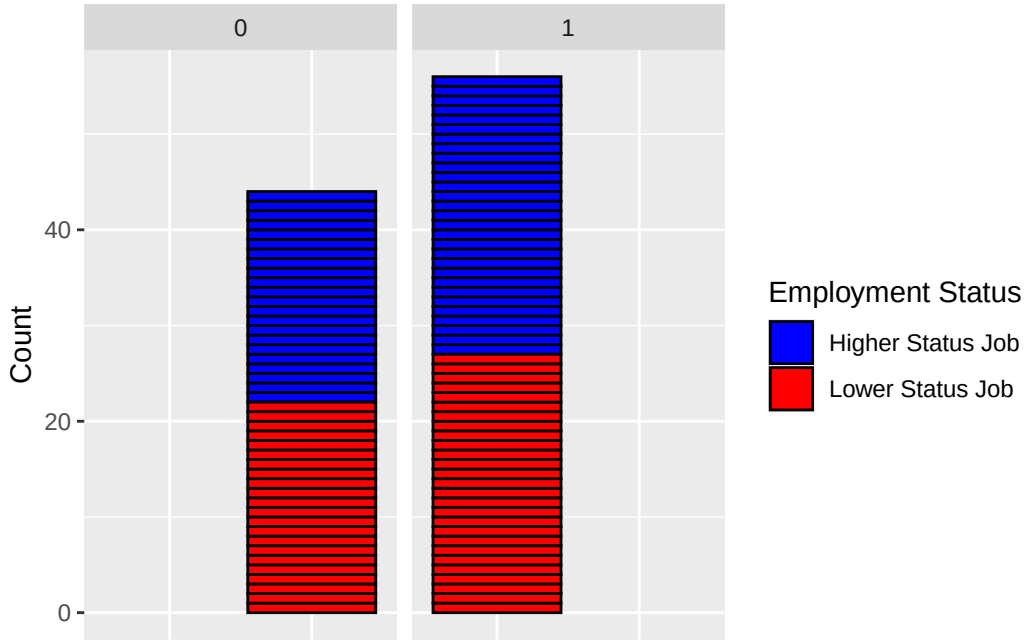

Figure 1: Physical attractiveness .vs Employment (2023)

As presented in Figure 1, what could be noted was that 21 counted of highly attractive participants have lower status jobs in the sampled data of 100 while 27 less attractive stakeholders are counted as having lower positions. For higher-status jobs, 27 higher attractive people have higher ranking positions, in the meantime, 25 less attractive people have lower positions. Upon visual, it is evident that individuals perceived to be very attractive tend to have a higher proportion of jobs in higher positions than those who are perceived to be less attractive. On the contrary, those who are considered unattractive are more widely spread in lower-ranking occupations. There might be slight differences but this is only 100 observations, in cleaned data, it has 2020 observations; what it means the differences between high and less attractive participants will be huge.

3.2 Better education, better jobs

To analyze the relationship between educational background (while attending university) and employment status, we constructed an analyzed summary dataset and marginalized variables

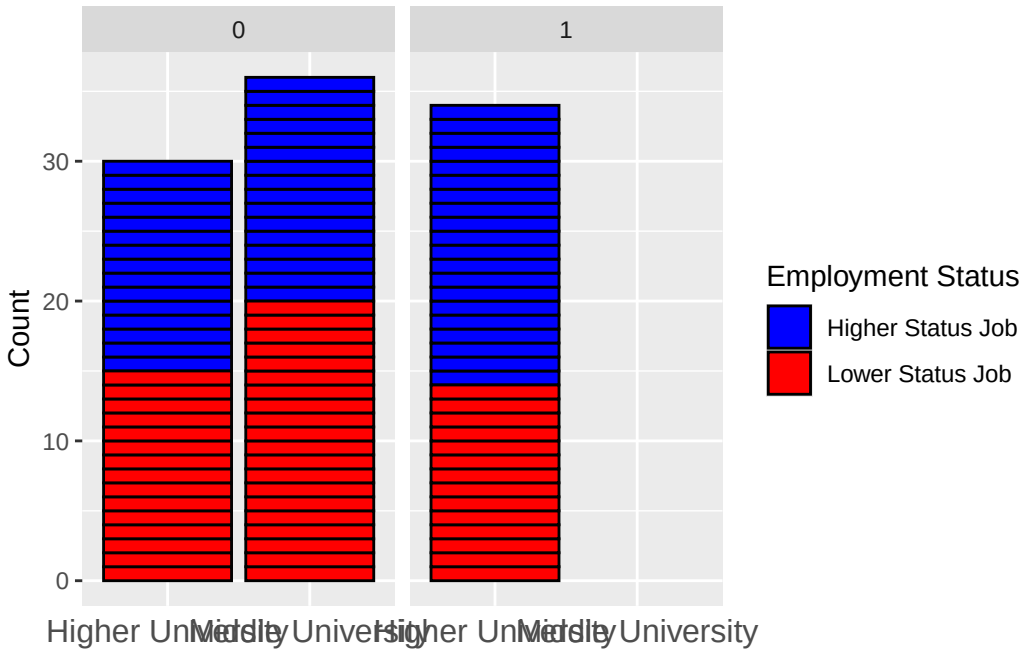

Figure 2: Education attractiveness .vs Employment (2023)

of education attractiveness depending on the level of the university (high, middle and low), and employment status. This dataset is detailed in Table 2 (see Table 2). Figure 2, same as Figure 1, the bar graph, presents the implications of a better university providing a better job status in the sampled data of 100 observations that were randomly distrusted.

For Figure 2, as mentioned above in this paragraph, a sample of 100 observations was randomly selected from the dataset to represent the broader undergraduate/graduated students in USA. Each bar in the graph represents the count of individuals categorized based on their perceived level of educational attractiveness and the status of their employment (higher status job or lower status job).

What Figure 2 has shown above that bar graph, every 18 participants in both three universities have a higher status job but the students in the higher university have fewer counts for lower status jobs - 15, 17 participants are counted as lower ranking positions in the middle university while total 25 students attending in the lower university have very low status for their jobs. This analysis provides insight into how attending an elite university affects an individual's chances of securing a higher-ranking job and highlights the interaction between educational background and career outcomes.

3.3 Gender perception, employment perception

To explore the relationship between gender attractiveness and employment status, a comprehensive dataset was synthesized with the variables of gender attractiveness - male and female, and job status. This dataset is outlined in Table 3 (see Table 3). Figure 3, referred to as Figure 3, visually illustrates this association through a bar graph. Same as Figure 1 and Figure 2, a representative sample of this dataset is 100 observations drawn randomly from the experimental designed surveys in the US. Each bar within the graph signifies the count of individuals based on their perceived gender attractiveness and their respective employment status (higher status job or lower status job).

According to Figure 3, found that among 100 participants, 25 females held lower-status jobs compared to 24 males, while 25 higher-status jobs were held by female participants and 26 by male stakeholders. Visually, it was evident that males were perceived as more attractive and had a higher likelihood of securing better jobs than females for various reasons. Although the gap between gender and employment status was small in this sample, it is important to note that the dataset contained 2020 observations, indicating that the differences may be significant depending on the gender of the participants.

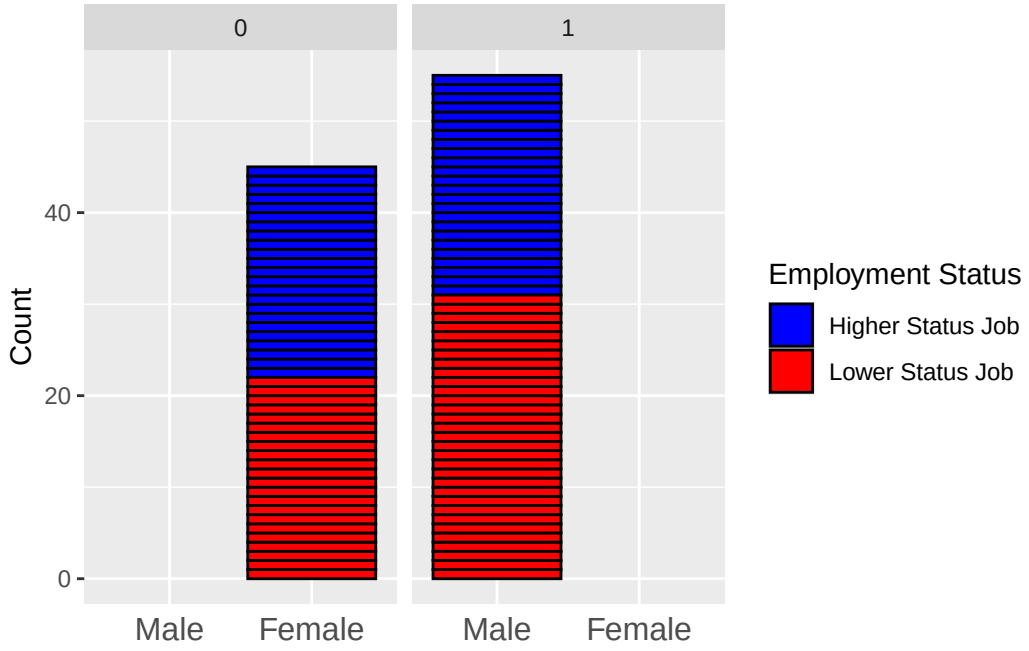

Figure 3: Gender attractiveness .vs Employment (2023)

4 Discussion

As evidenced by the results, there are a few points that should be pointed out with three major objections aimed at this paper. First point Section 4.1 will mention about the result of physical attractiveness affect to the employment status; next section, Section 4.2 talks the educational background can influence to have a better job. Lastly, gender attractiveness improve and advance the career opportunity in Section 4.3.

4.1 Highly attractive influences to get the higher status jobs during the hiring process

Physical attractiveness is melted into the part of people's life and judged by society. When it comes to landing a higher-status job, several highly attractive influences can make people stand out from other candidates, particularly, during the hiring process. Appearance plays a crucial role in forming initial impressions during interactions which will be the interview session for the employment with contributing the perceptions of the professionalism. According to Karen Dion, Research suggests that individuals perceived as physically attractive may benefit from implicit biases, as they are often perceived as more competent, trustworthy, and capable (Dion, Berscheid, and Walster 1972). In which, provides the advantages to the candidates for HR managers where positive initial impressions can shape the better qualification and sustainability for the roles. It leads to attractive people having a higher chance to get higher-status jobs or enhance their careers and investing in physical appearance to raise the attractiveness will help to advance career prospects.

4.2 Elite and well-known university improves the chance to have a better job

Another point to discuss in this paper is high-ranking and well-known universities have higher chances to get a better job. These days, the reputation and prestige of a university are important and it can impact on the employment status or hiring process. These universities are offering graduates a clear advantage in the job market. Employers view candidates who graduate from prestigious universities favourably, thinking they have a higher level of education, skills, and qualifications which recruiters and hiring managers are inclined to prioritize candidates who hold degrees from elite institutions due to the perceived quality of education and training they receive. Researchers investigate that the increasing admission and graduation rates in higher-ranking universities, allow employers to recruit better and more talented individuals (Nogales, Pamela Córdova, and Urquidi 2023). Not only the fame but also the institutions have access to extensive networks and opportunities for career advancement, As a result, employers are able to seek out future employees from the graduated students from well-known universities actively. On the other hand, middle or lower universities have less chance to have higher-status jobs due to the lack of networking and fame which are less attractive than high-rank schools.

4.3 Males advance the improved career opportunity

The last discussion to point out is gender, a huge impact on employment practices and career opportunities, and it is one of the most enduring, controversial, and widely studied topics in various disciplines over a century. The importance of gender dynamics in the employment context remains a central point of social discussion and cannot be overstated. The impact of gender on employment processes or career trajectories is multifaceted and complex due to the stereotypes from history which maintain gender discrimination and prejudice in employment practices, and certain industries and positions are disproportionately dominated by males specifically. What Kubiak wrote in the paper was gender biases' impact on hiring decisions remained an issue (Kubiak et al. 2023). Even Figure 3 (see Figure 3) provides the different gaps between females and males for job status and if it covers all 2020 respondents, the gaps will be hugely different.

4.4 Weaknesses and Next steps

4.4.1 Weakness

The limitation of using data from Dataverse at the University of Toronto is the format of the variables which are predominantly answered as binary values (0 or 1) rather than categorical responses (yes or no). This formatting issue poses challenges when converting the data into tables and graphs in this paper to present as data and results. For instance, figures Figure 2 and Figure 3, the x-axis captions cannot be effectively managed but overlapped, and the labels displaying 0 and 1 above the graphs cannot be removed. This limitation restricts the clarity and comprehensibility of the visual representations of the data visualized as the graphs but hindering the ability to convey meaningful insights to readers. Moreover, the prevalence of binary variables in the dataset causes the risk of error data interpretation. The presence of 0 and 1 values may lead the system to misinterpret certain variables as missing or incorrect data, potentially resulting in inaccuracies in the generated tables and graphs. Such inaccuracies can compromise the sample data from the dataset.

4.4.2 Next steps

A possible next step could be to explore how different characteristics/interpersonal skills that each individual has with different academic backgrounds and attractiveness can influence employment status with an individual's gender and the relationship between characteristics of individual and job status regardless of physical, gender and educational background attractiveness but what HR teams or supervisors think about each person itself without any perceptions components. Additionally, we could also create a model section to make a linear regression model to present the differences. Regarding the binary responses in the dataset, instead of 0

and 1, simple but straightforward answers (Yes and No) could be done to be beneficial and improve the overall analysis, the quality of graphs and the paper. Furthermore, the visualization of a separated graph model to easy to compare each component would be helpful to advance the quality of this paper.

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