The Impact of University Majors on Graduate Success: Employment and Earnings

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2025-10-26

Chosen Topic

The Impact of University Majors on Graduate Success: Employment and Earnings

This project investigates the employment and salary opportunities offered to graduates by different university departments. This project examines which departments offer the best opportunities (defined by high employment and high relative income) to their graduates. It also explores how these indicators relate to national happiness scores.
In short, which university departments offer graduates more jobs and higher incomes, leading to greater happiness.

Summary

Choosing a University Major: Career, Earnings, and Happiness

Choosing a university major is a pivotal moment in our lives. This experience, which we experience around age 18, actually impacts our careers, financial trajectories, and overall life satisfaction. This is because we will spend a significant portion of our lives working in our chosen major. Therefore, choosing a university major may seem straightforward, but it can be challenging and thought-provoking. Therefore, it can be argued that our chosen major is the most important factor shaping our future. So, does every major offer the same job and earning opportunities? This project explores this. It examines the job and earnings differences among graduates of different university majors. As a result, it aims to determine which major offers better career opportunities and stability. It also explores whether these indicators are correlated with national happiness scores.

The analysis is based on the "The Impact of University Majors on Graduate Success" dataset, which I shared on Kaggle, combining data from various sources. This dataset contains data on employment rates and average salaries of graduates in various countries, obtained from the Organization for Economic Co-operation and Development (OECD), and the overall happiness levels of countries, obtained from the World Happiness Report. Various countries are included in my analysis, but Turkey is not included. This is because Turkiye's official website, the Turkish Statistical Institute (TUIK), provides categorical, rather than numerical, data on average earnings by department in Turkiye. However, since the data I have is numerical and lacks comparability, I did not consider it appropriate to include it in this project.

Four basic visualizations will be used in this study:
Bar Charts show employment rates by department;
Scatter Plots show earnings and employment rates;
Box Plots show salary distributions; and
Maps show happiness scores by country.
The expected findings of the analysis are that engineering, health, and STEM (Science, Technology, Engineer-

ing, and Mathematics-based departments) are expected to offer higher employment and earnings, while arts and humanities are expected to have a higher risk of unemployment. As a result of these findings, it aims to make a significant contribution to students' making a more conscious and data-based department selection when it comes time to plan their future careers.

Data Description

Title: The Impact University Majors on Graduate Success
Source: Kaggle - Dataset by Yamur Nisan Aktas
Access: https://www.kaggle.com/datasets/yamurnisanakta/the-impact-university-majors-on-graduate-success
Format: CSV
Variables:
Major - field of study / University major
Employment Rate - Employment percantage by major
Earnings - Average income
Country - Country of data collection
Happiness Score - Country level life satiscfaction score
This dataset contains data on graduates' success levels categorized by their university major. It combines information on employment rates, average salaries, and social indicators to analyze how education choices affect professional and financial outcomes.