**UNIVERSITY OF CENTRAL OKLAHOMA (UCO)**

**COLLEGE OF BUSINESS, GRADUATE UNIT**



**PROGRAMMING FOR ANALYTICS: MSBA 5303**

**PROJECT TITLE: Analysis of PERM**

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**INTRODUCTION**

The Permanent Labor Certification (PERM) process is a crucial step in the journey for foreign workers seeking permanent residency in the United States through employment. Administered by the Department of Labor, PERM requires employers to demonstrate that no qualified U.S. workers are available for the position they intend to fill with a foreign worker. This involves conducting rigorous recruitment efforts and filing a detailed application with the Department of Labor (DOL), including job descriptions, evidence of recruitment, and prevailing wage determinations [[2]](#Bookmark2) Upon successful review and certification by DOL, the employer can proceed with filing an immigrant petition on behalf of the foreign worker with the (United States Citizenship and Immigration Services) USCIS, leading to potential adjustment of status or consular processing for the foreign worker to obtain permanent residency. The PERM process is intricate and often necessitates guidance from immigration professionals to navigate its complexities effectively.[[1]](#Bookmark1)

This project aims to explore how the U.S. job market is affected by the approval of foreign workers, by studying a big collection of data from the Department of Labor (DOL). Looking into this data will help us understand the trends, patterns, and unique cases in the job market, especially how foreign workers influence different industries and the overall economy. By examining the details in this data, people like government officials, researchers, business leaders, and groups supporting workers can learn a lot about the wages, job approvals, and applications related to foreign workers in the U.S. This information is important for understanding how foreign workers fit into the U.S. job market.

For this project, we are using the publicly available PERM data provided by the Department of Labor. This dataset has a wide variety of details such as job titles, employer names, job locations, prevailing wages, and application outcomes. We'll organize this information to make it easy to work with and clean it up to make sure it is accurate and consistent. Then, we'll start analyzing it to see what the data tells us about the types of jobs being offered to foreign workers, how much they're paid, and how often these job requests are approved. We'll use different methods to spot trends and patterns, helping us understand how the process of hiring foreign workers affects the job market in the U.S. Our goal is to make this information clear for everyone, especially those who make job rules or hire workers, so they can make better decisions. We'll explain our steps for looking at the data and what we hope to find out, aiming to help improve how jobs are given to foreign workers.

**MOTIVATION**

GlobalTech Solutions, which specializes in technology solutions and services, frequently relies on skilled foreign labor to meet its project needs and has always fallen short in acquiring good candidates for their work. The challenge of navigating the labor certification process and ensuring fair wage determinations has become increasingly significant for GlobalTech Solutions and similar companies. Current solutions often fall short of providing the clarity and efficiency needed by employers and workers. This problem's roots trace back to the evolving landscape of employment-based immigration policies, which have grown complex over the years, often leading to administrative hurdles and uncertainties for employers and foreign workers alike.

We're working on a project that uses high-tech ways to look closely at how the process for approving work applications is done. We want to find patterns and unusual things that could help make better rules and business plans. Even though others might be doing similar work, we're using the newest methods and looking at all the data in great detail to get clearer and more useful insights. We think that by making this process clearer and easier to predict, we can help make it fairer and work better for everyone.

We want this project to help everyone involved in hiring workers from other countries make better decisions, from government officials to business leaders. We're going to take a close look at how the process of getting permission to hire foreign workers works, so it can be easier and more straightforward. This isn't just about making things better for one company like GlobalTech; it's about improving the rules for the job market, helping develop the workforce, and supporting the economy to grow.

In our project, we're not just trying to fix the problems and uncertainties we see today. We're also setting the stage for new ways to handle hiring workers from other countries in the future. We plan to use a cost-benefit analysis, which helps us understand if the benefits of our idea are worth the costs. This includes looking at things like the Net Present Value (NPV) and Internal Rate of Return (IRR) to show that our solution could really pay off over time. We believe our project is a step forward in making sure the job market, foreign workers, and companies with global interests can all benefit together.

**PROJECT DETAILS**

The project will primarily leverage Python, specifically the pandas library, for data manipulation and analysis. Visualization tools like Matplotlib and Seaborn will be used to present findings, and machine learning models from sci-kit-learn may be employed for predictive analysis if applicable.

Data will be obtained from the U.S. Department of Labor's Office of Foreign Labor Certification [[3].](#Bookmark3) The dataset from the Department of Labor contains detailed records of labor certification decisions. Variables include case status, job title, wage offers, employer information, and worker qualifications, among others. The size and specific number of variables will be confirmed upon initial data exploration.

The project will produce a comprehensive analysis report detailing patterns, trends, and anomalies in labor certification outcomes. Additionally, predictive models to forecast certification outcomes and interactive dashboards for data visualization may be developed but we are putting this for the additional features.

We plan to finish this project in about 2 to 3 months. First, we'll clean up the data and look at what we have, if it needs more rebushing we will take more time into it, making sure our data is error free and ensure high accuracy. Then, we'll dive deeper into analyzing it.

This project aims to illuminate the dynamics of the U.S. labor certification process through advanced data analysis, offering insights into policy impacts and labor market trends. By addressing the current challenges in employment-based immigration practices, it seeks to contribute to more informed policy-making and effective labor market strategies, to enhance transparency and efficiency in the foreign labor certification process.

**References**:

[[1].](#Bookmark1) Stewart, J. (n.d.). Retrieved from <https://www.ilw.com/books/ThePERMBookOnlineLibrary/7>. Authored Articles/2. Parties to PERM/Who may be a PERM Employer.pdf

[[2]](#Bookmark2). Kalaiselvan, Y. (2018). Analytics on LCA, perm applications and prevailing wages. Retrieved from <https://www.linkedin.com/pulse/analytics-lca-perm-applications-prevailing-wages-yuvasree-kalaiselvan>

[[3].](#Bookmark3) Performance data. (n.d.). Retrieved from <https://www.dol.gov/agencies/eta/foreign-labor/performance>