DSC530 Term Project Summary.

“Analyzing Label Energy Corp Time Sheets”

By Kurt Stoneburner

I was focused on two questions:

“Is Label Energy Corp dependent on a single high profile utility provider?”

“How does an unlimited vacation policy effect productivity?”

The first question is based upon selfish self-interest. Label Corp’s biggest client has faced significant public safety issues over the past decade. In 2018, this client was responsible for $30 Billion in damage and plead guilty to 84 counts of manslaughter. ‘Only’ 35% of revenue is tied to this company. If it failed (or chose another consulting firm) my wife would still have a job, although half her co-workers wouldn’t.

Determining the effect of vacation of productivity was a more interesting challenge. It had difficulty arranging the variables in a manner where the relationship was clear. I think this is due to the nature of hours (time). Time spent on one activity (productivity) cannot be spent on another (vacation). This applies even when both activities are performed on the same day.

I feel there are a fair bit of assumptions on my part. My assumptions became apparent as I was creating my presentation. Every time I used the word ‘likely’ I’m using assumption. For every ‘likely’ in my paper there should be a corresponding statistic.

I am having a little difficulty interpreting my regression model. Mostly, I’m concerned I'm not interpreting the results correctly. Notably my analysis units are employee hours per quarter. Which are each employee’s hours summed over each quarter. I arbitrarily picked this unit with the assumption that most employees take some vacation every quarter. By summing over year quarters I assume the variability is reduced. I took a non-standard approach to my interpretation of the model.

Salary Employees:

Intercept: 516.65 - Coefficient: -1.64

I chose to apply this model to the average employee. I assumed the Intercept can be divided equally by the 6 employees. I interpreted that each employee accounts for Intercept : 86.11 hours/quarter. I then applied the coefficient to the employee intercept. I’m unsure if this is a proper interpretation or not. Perhap I should have kept everything in the modeled units (hours per quarter) and divided the final results by the employee count.

My biggest challenge for this project was time. I wasn't able to devote enough time to the project. I devoted the entirety of my available time to keeping up with my course work for this class. That’s mostly due to me needing rewrite and deconstruct the Thinkstats code to fully understand the coursework. That issue aside, this project reflects an absolute minimum effort. I put in a lot of effort in Week 06 and was unable to touch this project until Week 12. This is in stark contrast to DSC510 and DSC520 where I finished my term project a week or more in advance.

I will be spending more with the data on a personal basis. The office manager wants a better understanding of individual employee task efficiency. She wants me to quantify the types of tasks that specific individuals are good at. I’m looking forward to that challenge. It’ll be fun.

Reference:

<https://www.nytimes.com/2020/06/16/business/energy-environment/pge-camp-fire-california-wildfires.html>