

Executive Summary

Goal: The purpose of this report is to understand the relationship between employee satisfaction, workplace policy and culture, and firm value from job review data.

Results: The main findings are:

- Low rating reviews frequently mentioned management negatively, as well as poor working environments (such as lack of support from peers and/or management)
- High rating reviews mentioned good benefits, opportunities to learn and advance, and high overall level of support within team environments.
- Employee satisfaction (as reflected by the distribution in ratings) differed more across industries and occupations than across salary levels.
- Highest rated industry was Oil & Gas Extraction (due to high compensation and company perks); lowest was Truck Transportation (due to low compensation and poor working conditions) .
- Highest rated occupation was administrative assistant (due to adequate compensation for low-stress job requirements); lowest was truck driver (see above).
- For the set of reviews whose salaries were available, the median annual salary was \$20,522 which is far lower than the Bureau of Labor Statistics figure of \$44,654. This is due to the over-representation of low-wage jobs within Compustat firms in industries such as retail and fast food.
- The most favourable workplace policies were centered around inclusion and diversity, retirement, and travel opportunities.
- The least favourable were related to harassment, discrimination, and penalties

Method: This report uses over 1.2 million reviews and rating from the job review site Indeed. Firm level data was procured from Compustat. Natural language processing methods were used to identify terms that were significant in determining employee satisfaction, with a focus on terms that reflect job characteristics (such as pay, break, hours, management) and terms that reflect firm culture (inclusion, diversity, support, team).

1. Introduction

Prior to the availability of job reviews, there was little data outside of surveys to determine how employee satisfaction was determined by job characteristics, and how this in turn related to firm value. This report will address the relationship between these factors, outlining:

1. What on-the-job factors determines high satisfaction
2. What are the contrasts between high satisfaction and low satisfaction
3. What is the relationship between job satisfaction and firm value

I examine the job reviews, ratings, and salaries of 1,122 publicly listed companies. I find substantial heterogeneity in job satisfaction, with starker differences across different companies, occupations, and industries rather than across salary levels. The highest salary group, those earning \$100,000 and above, rated their jobs 4 or 5 60.5% of the time. The lowest group of those earning around \$10,000 a year rated their jobs 4 or 5 53.3% of the time - a difference of 7%.

In addition to analysing ratings, I also examine the text of the reviews in order to shed light on the effect of factors internal to the firm (such as company policies and workplace culture) on workers' overall satisfaction. First, I examine company policy words in context. I find that workplace terms such as inclusion/diversity, travel, retirement, support have the highest proportion of positive reviews, while terms such as harassment/discrimination, violation/penalty, and mismanagement have the highest proportion of negative reviews. I then conduct a series of NLP experiments, where I find the terms that are most significant in predicting whether a review is positive or negative, and also whether it originates from a firm that experiences market value growth or market value decline.

For high satisfaction reviews (ratings of 4 or 5), employees spoke of supportive work environments, liking co-workers and were more likely to refer to teams. In more concrete policy terms, many mentioned favourable benefits, fair pay, manageable hours. Many reviews also mentioned performance feedback positively, as well as describing their roles as challenging. Low satisfaction reviews (ratings of 1 or 2) were often much more detailed and specific about what employees observed on the job. Most frequently, management was

mentioned in a negative light. Aspects of the job such as the *hours* and *pay* were mentioned, alongside descriptors like *poor* and *horrible*. Many workers felt unvalued by the company they worked for and under-compensated for the kind of work and level of stress they were experiencing on the job.

The report proceeds as follows. First, I outline the data collection and cleaning process. Second, I describe the main dimensions of the ratings data. Third, I present the main results of the report: (i) I examine the correlation between ratings and market value, as well as ratings and earnings per share; (ii) I look at the use of workplace policy terms and how they are rated; (iii) I look into significant differences in the terms used in reviews with high ratings vs low ratings.

2. Data collection and processing

2.1 Data sources

First, I gather company data from Compustat. For each company in my Compustat sample, I collect rating and review data from the job site Indeed, the largest job site in the US. The time frame available is 2012-2017. Each review contains the following information: the job title of the position held by the reviewer, the date of the review, a rating from 1 to 5 of the company, the location of the job, as well as the text of the review alongside pros and cons. Indeed also lists the average salaries at the company of a given title, which is requested when the employee submits a review. (See appendix for example of reviews and salaries data)

Table 1: Overview of data

Variable	Value
Number of Reviews	1.24 million
Number of Companies	1,122
Average Market Cap across Companies	18.76 billion
Median, Mean Wage	20,522; 29,048
Number of unique job titles	351,827

Salaries data are not uniquely identifiable; at a company, for each job title, the average annual salary or hourly wage is reported. Thus, when I match job titles with salaries, the reported salary is the average of all salaries reported at the same company. Overall, 1.36 million reviews and ratings were collected, alongside 359,710 unique salaries.

2.2 Limitations to Data

In terms of selection, there is little restriction in terms of who can and cannot post a job review or list a salary at a company on Indeed. Judging from the distribution of ratings, which is uni-modal at a 4 rating, it suffers less from the usual bimodality of ratings schemes (source) at 1 and 5. Job reviews may differ from other kinds of review sites (such as Amazon or Yelp) in that most users hold only 1-2 positions and need not post multiple reviews for various products, which leads to less extreme ratings distributions. On the other hand, incentivising employees to leave positive reviews and hiring fake reviewers are possibilities, as the site has no way of verifying the employment status of reviewers. Unfortunately, there are no obvious ways to filter “fake” reviews; some positive bias is to be expected.

Another such caveat is that ratings are purely subjective; many reviews that are 4 or 5 star are quite similar to 3 star reviews. One user may believe that 5 is the “baseline” rating for an adequate job, while others may believe it is 4 stars or 3 stars. This may also contribute some positive bias.

2.3 Review text cleaning

Prior to NLP analysis, the texts of reviews are “stemmed” to their base word (e.g. “competitive” to “compet”) and stop words (e.g. “and”, “the”) are removed. Other words that occur in less than 10 reviews are also removed to constrain the dimensionality of the resulting matrix that is fed into the algorithm. I use both one and two-grams (i.e. sequences of two words) in the analysis.

2.4 Industries

Compustat includes North American Industry Classification System (NAICS) codes (up to 6 digits) for many companies. I use the 3 digit NAICS codes, resulting in 76 different industries in my sample. Overall, there are 519,254 reviews for companies that have an available NAICS code.

2.5 Job title cleaning

As job titles vary greatly (I have 351,827 unique self-reported job titles), I utilize K-Means clustering to cluster job titles into 80 groups. Each cluster is then labelled the job title that occurs most frequently within that cluster.

2.6 Average salaries

Some salaries are reported per hour, while others are reported per annum. To make all reported earnings comparable, I multiplied the hourly wage by 1783, which according to the OECD, is the average number of hours worked per year in the US.

3. Descriptive Summary

In order to understand the prevailing trends in the data, in this section I provide an overview of the ratings data across companies, industries, and occupations.

3.1 Ratings Overview

The ratings distribution for the 1.24 million reviews is reported below. The mode occurs at a rating of 5, which is approximately five times as likely as the least reported rating.

Table 2: Ratings overview

Rating	Proportion	Example Review
1	6.24%	'just a very bad job overall ... way too much for employees getting paid minimum wage and not getting a substantial amount of hours.'
2	8.07%	'The building is a dungeon. The pay is not competitive. They thing if they give you free tv services that makes up for not paying better hourly.'
3	23.73%	"I didn't like the work environment at Walmart at all. Some of the employees where rude and very unfriendly. It wasn't hard work if you could keep up. I didn't feel that I could go to the management with issues that I had. I felt like they would judge me and think less of me."
4	30.70%	'Its an hustle and bustle kind of job,many duties and responsibilities most of the time its fun to meet and help people with their purchase.Help the customers find exactly what they are looking for,helping them get the best sale advantage,helping them with the on line pick up as fast as possible ans cashing them out as quickly as possible.'
5	21.20%	'Wish I could have this job forever! This was such a great experience with great potential for advancement and learning. I appreciate every day what I gained from this company.'



Image 1: Number of Ratings Across Reviews

Ratings across Companies

I present two different rankings of companies across ratings: the first, the companies with the highest percentage of 5 ratings; second, the companies with the highest percentage of 1 ratings. The number of reviews at each company may vary significantly, however, I only included companies that had 50 or more reviews.

The top companies arise from a range of different industries, although the highest rated company is a software company that employs mostly high-skilled workers, which as shown below, will induce more positive ratings. Interestingly, the second-place company is a debt collection agency that has more polarisation in its ratings (a higher proportion of 1 ratings compared to the rest); the 1 rating reviews and 5 rating reviews indicate quite significant differences in opinions on the workplace.

As for the low-ranking companies, healthcare companies (including VCA, a veterinary clinic) are disproportionately represented, a trend that is evident when I breakdown ratings across industries, although the lowest ranking company is a property management firm. Most reviewers describe working conditions that are highly stressful, unfairly compensated, and make workers feel “disposable”. Many reviews include descriptions of discrimination and harassment. Overall, employees at such firms felt an extreme lack of care on the part of management.

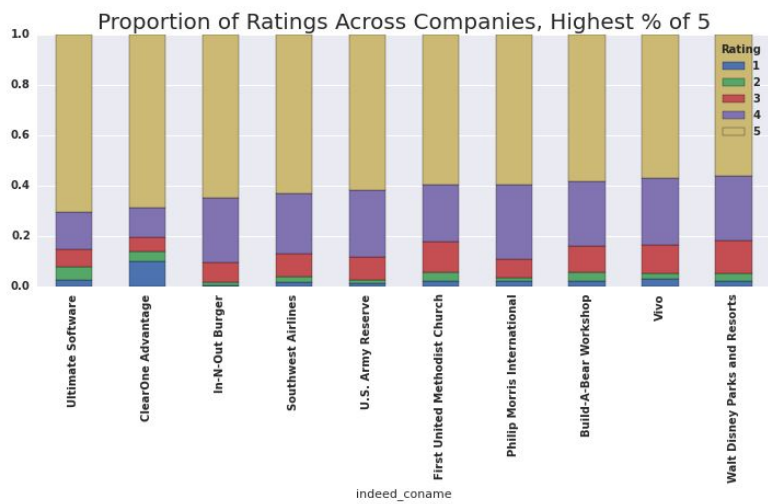


Image 2: Proportion of ratings across companies, highest % of 5 Ratings

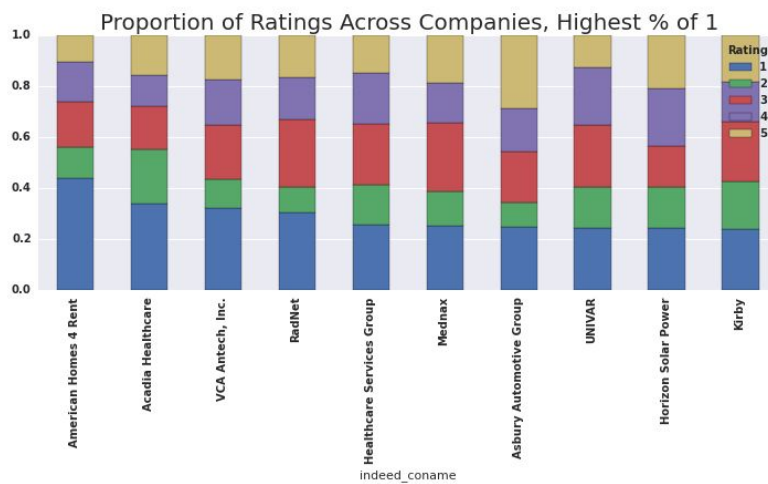


Image 3: Proportion of ratings across companies, highest % of 1 Ratings

Ratings across industries

Surprisingly, the industries with the highest ratings are not necessarily the highest skilled; in fact, most industries in the top 10 are in the primary or manufacturing sector. However, a caveat is that some of these industries have much fewer observations, which is reflected in appendix table **3**. For industries with over 10000 ratings, Chemical Manufacturing has the highest percentage of 5 ratings with 38.3%. Comparatively, Oil and Gas Extraction have 1,131 ratings available, while the largest industry (Professional, Scientific, and Technical Services) had 66,705. The lowest rated industries are a mix of transportation, healthcare, and peripheral electronics; this is also reflected in lowest rated occupations. Poor reviews within Truck Transportation industries centered around the long hours, and lack of breaks/benefits. In the healthcare industries, many complaints were about poor management resulting in frequent turnovers, as workers were made to feel unvalued.

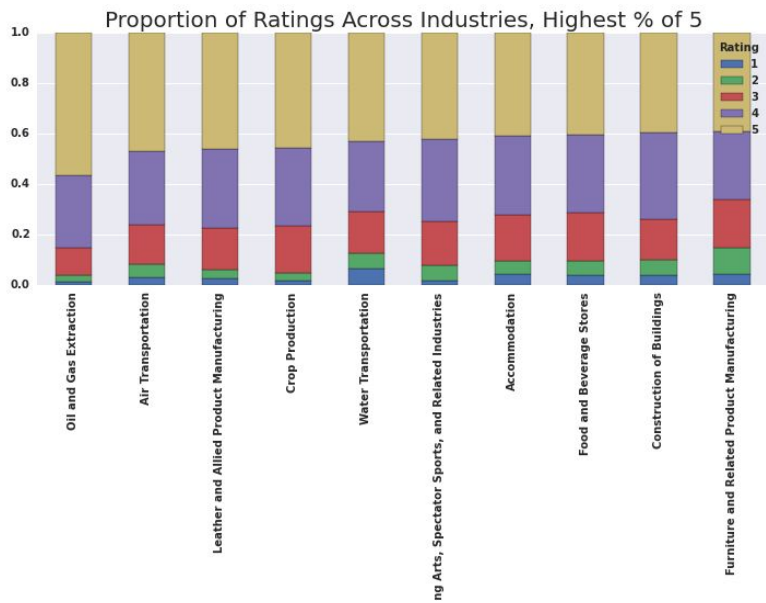


Image 4: Proportion of ratings across industries, highest % of 5 ratings

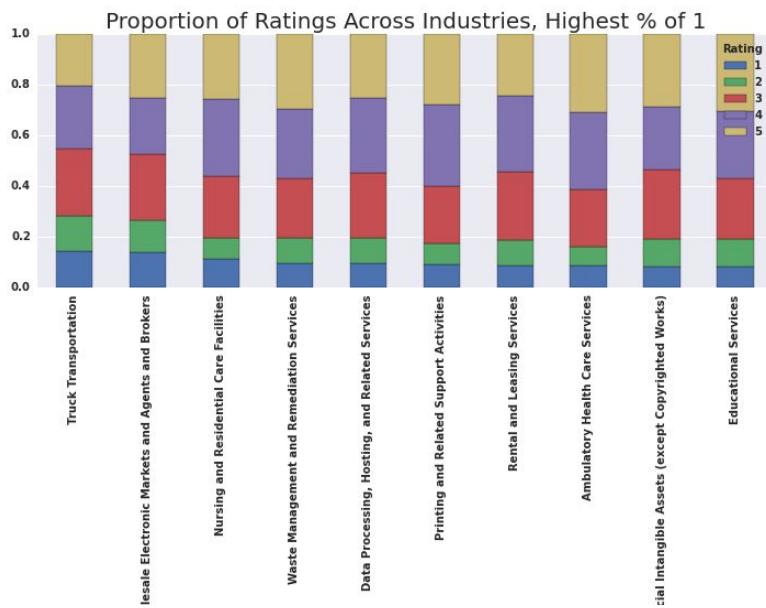


Image 5: Proportion of ratings across industries, highest % of 1 ratings

Ratings across occupations

The highest rated occupations were administrative roles, with the top rated occupation being “administrative assistant” and “executive administrator.” In the reviews, the administrators mentioned numerous perks, good benefits, and fair work loads. The average salary administrative assistants was \$34,843, and for executive administrators \$56,717, compared to the mean of \$29,048. One main advantage of such roles was that the tasks required for the job were relatively simple. (From one executive administrator: *Typical day at work included booking business travel through their travel office, scheduling meetings, going through emails, doing expense reports and answering phones.*) For the lowest rated occupations, as reflected in industries, drivers and health care workers reported the least satisfaction. Low rated reviews in such occupations typically mention high amounts of stress, inadequate compensation, and unrealistic expectations.

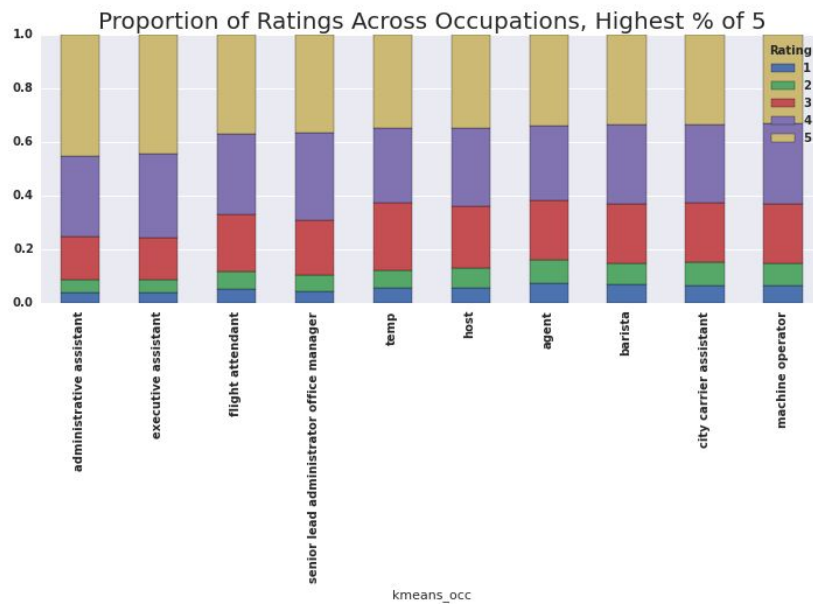


Image 6: Proportion of ratings across occupations, highest % of 5 ratings

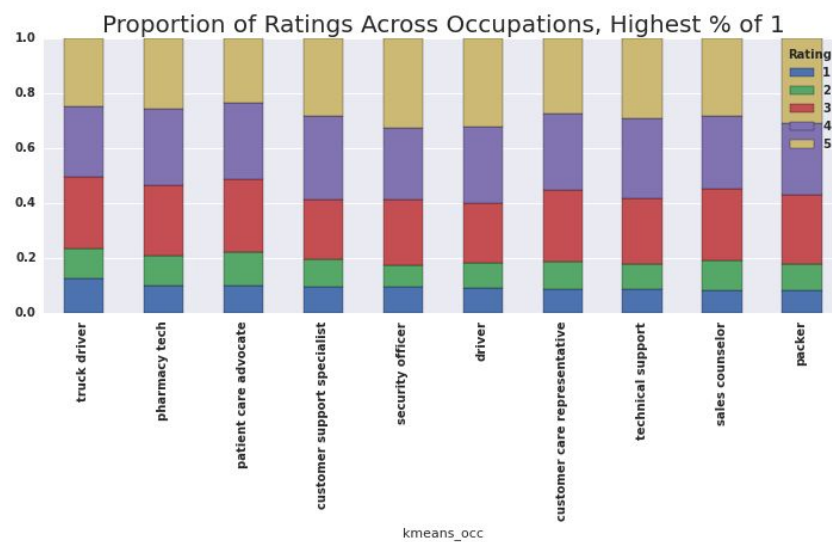


Image 7: Proportion of ratings across occupations, highest % of 1 ratings

Ratings comparison: Contractors and Freelancers

Independent contractors and freelancers are a growing part of the workforce. However, due to the difference in their level of job attachment, they may have dissimilar experiences to the usual permanent employee. I identified contractors and freelancers by looking at if either term was mentioned in the occupation, or in the review. Often, a reviewer may list their profession (Graphic Designer) as their job title and mention being freelance in the review. In total, I have many more reviewers who identify as contractors (9,061) compared to freelancers (275).

According to the ratings distribution below, contractors have negligible difference in job satisfaction compared to the average employee. Freelancers, however, have higher satisfaction compared to the norm. This may be due to the fact that many freelancers employed in my data set held creative positions such as designer, writer, or editor, and were often at arm's length from the rest of the firm. The positive reviewers valued being their "own boss", while negative reviews mentioned job insecurity as a concern. Contractors held a much wider range of positions, although there was some concentration of engineers, analysts, and technical specialists.

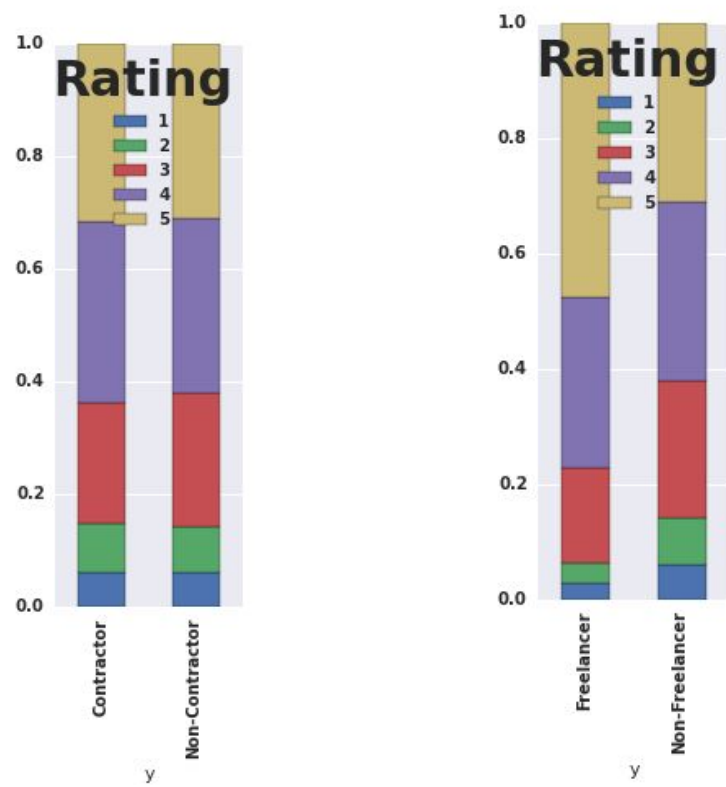


Image 8: Ratings distribution of contrators vs non-contractors, freelancers vs non-freelancers

Salaries Overview

Across the 327,559 salaries that are linked to reviewers, the mean salary is \$29,048, and the median is \$20,522. According to the BLS, the median yearly salary for full-time U.S. workers per year is \$44,654; thus, my sample tends towards lower wage workers. This is confirmed by the cumulative distribution across salaries below.

Proportion of ratings by salary

Conditional on the level of compensation, distribution across ratings may differ. I place all workers in bins of \$10,000 by rounding each worker's pay to the nearest \$10,000. For example, the bin \$30,000 would then represent all workers earning \$25,000-\$35,000. All workers earning over \$100,000 are placed in the \$100,000 bin.

Interestingly, there is not a significant amount of variation in the distribution over ratings by salary group. As expected, the lowest wage earners had the highest proportion of 1 and 2 ratings at 19.6% of reviews. For the highest wage bin, this was 13.6%. As for the salary group with the highest proportion of 4 and 5 ratings, this was the \$90,000 group with 64%, who exceeded the \$100,000 group with 60.5%. (The \$10,000 group had 53.3%) One plausible explanation for these trends could be that higher earning individuals are much more likely to be holding management or executive positions, which subjects them to greater responsibility and stress compared to their slightly lower earning counterparts.



Image 9: Distribution of ratings across different salary groups

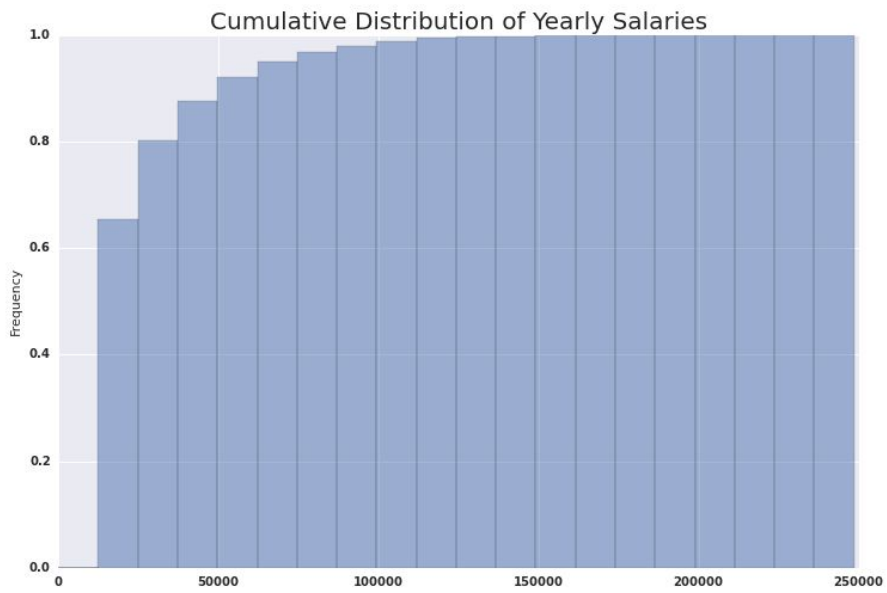


Image 10: Cumulative Distribution of reported annual salaries

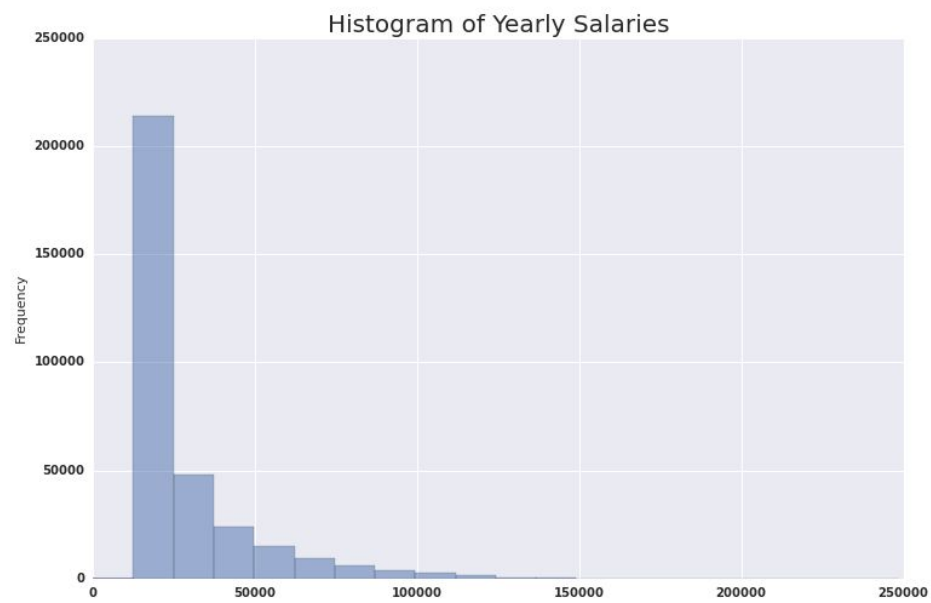


Image 11: Histogram of reported annual salaries

4. Results

In this section, I present the main results of this report. Motivating this analysis is the larger question of how company culture and employee satisfaction might affect firm value. Prior to the existence of job review sites and Natural Language Processing methods, there was no data source for qualitative factors such as “company culture” and “employee satisfaction”, besides small scale surveys; the availability of reviews data has allowed for much greater potential in understanding the effect internal company factors on firm value.

Previous studies such as Koys (2001) uses multi-year survey data and finds evidence that employee attitude affects business outcomes and not the other way around. In a similar vein, Hansen and Wernerfelt (1989) conclude that internal company factors explain twice as much in firm performance as external market factors. Recent papers have emerged using Glassdoor data to measure corporate culture. Popadak (2013) finds that result-oriented corporate culture leads to short term gains and long term reversals in performance. Ji et al (2013) find that low job satisfaction at a firm leads to increased probability of SEC fraud investigation. This result in this section builds on existing research by uncovering more specifically firm-level terms and policies that determine positive and negative corporate cultures.

4.1 Company Valuation and Ratings

Another question of interest is whether or not employee satisfaction and firm market value are related. It could be that satisfied employees increase company productivity, leading to market value gain; or similarly, loss in market value could lower workers’ morale and satisfaction. The two are highly likely to be endogenous, but first establishing a correlation between the two measures would be helpful.

From Compustat data, I collect data on the market value and earnings per share of each company for each year in the sample. For 2016, there were 1,072 companies in my sample. The mean earnings per share was \$1.39, and mean market value was 18.76 billion. Apple Inc had the highest market value in my sample (574.89 billion); the highest EPS was Seaboard Corp, an agribusiness and transportation conglomerate, with \$151.33.

I log-normalize both the EPS and market value and plot both against the company's (untransformed) average rating for the previous year (2015). There is positive correlation in both cases; slight with EPS (0.11), and stronger with market value (0.28). However, since this is just a cross-sectional correlation, causal relationships cannot be established. The results merely suggest that average ratings could be positive related to market value.

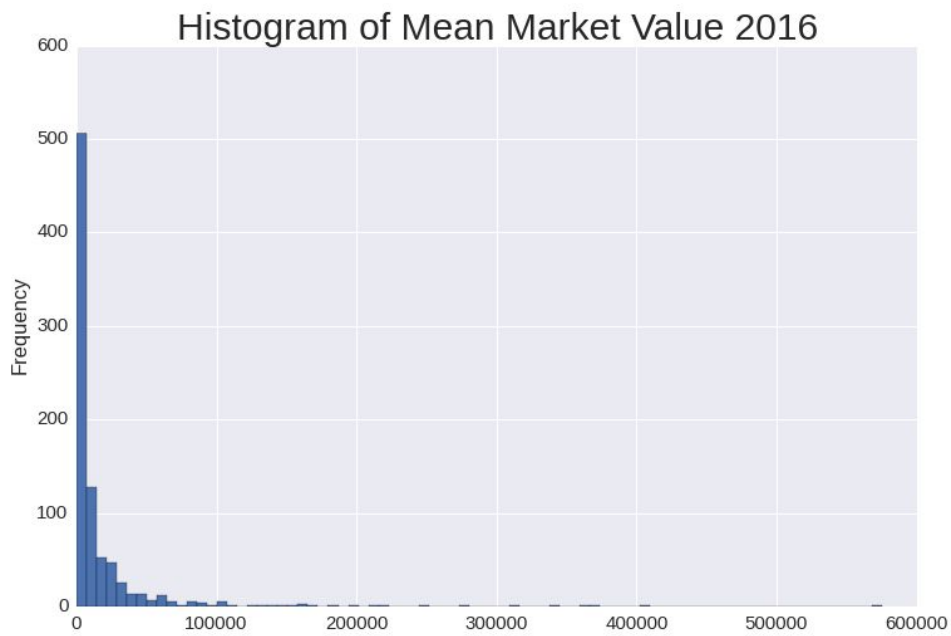


Image 12: Histogram of average market value for observed Compustat firms, 2016

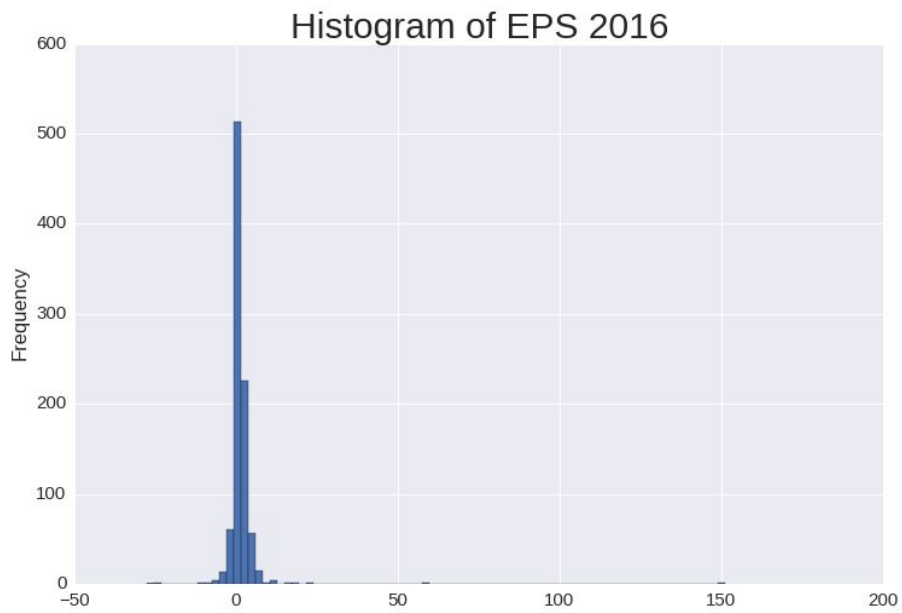


Image 13: Histogram of earnings per share for observed Compustat firms, 2016

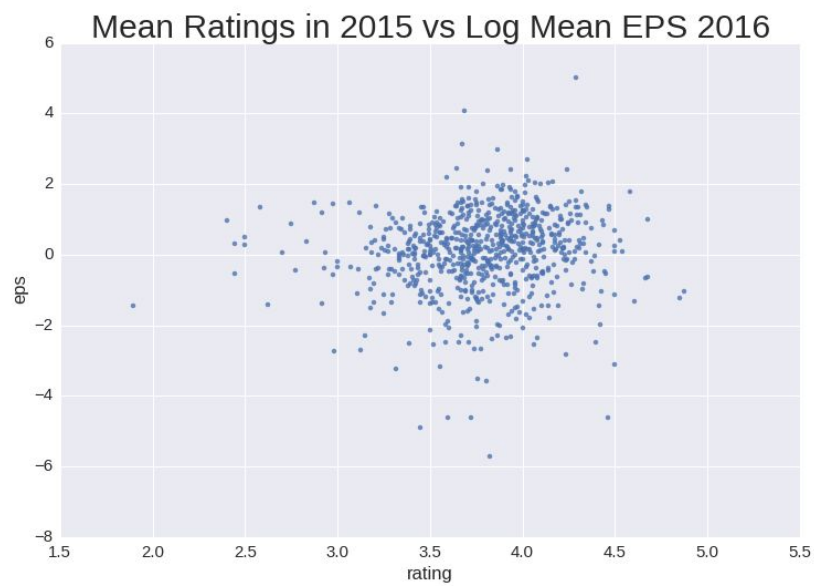


Image 14: Average ratings in 2015 regressed against log mean earnings per share in 2016

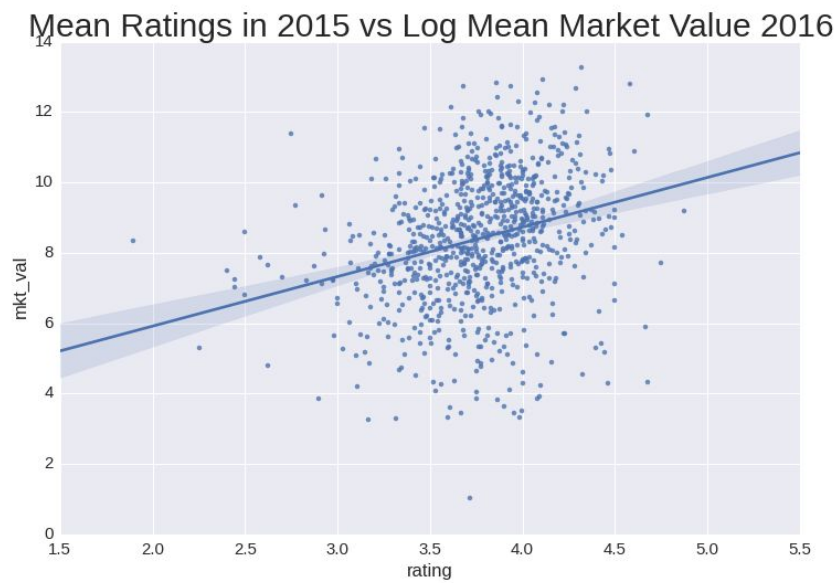


Image 15: Average ratings in 2015 regressed against log mean market value in 2016

4.1 Employment Policies and Ratings

For the first part of the text analyses, I simply take a list of employment related policies and examine the rating distribution of reviews that contain each term. The policies that were mentioned most were: *management, hour, environ, pay, benefit*; suggesting that workers are most concerned with how they are managed, the hours they are expected to work, the work environment, and how they are compensated. I then ranked each policy term by the highest proportion of 5 ratings, and the highest proportion of 1 ratings. For the context terms surrounding policy terms, see appendix table 4.

The policy terms rated most highly were: *inclusion, retirement, travel, equal opportunity, support, diversity*. This suggests that reviewers who mention inclusivity/diversity value it highly; contextually, both words are mentioned in association with supportive team environments. Opportunities for travel is frequently mentioned as a perk employees enjoy. Good retirement plans also lead to higher worker satisfaction. Additionally, words associated with feedback and assessment were rated highly; in context, reviewers rated highly fair, helpful evaluation that they could learn from.

The lowest rated policy terms unsurprisingly include terms to do with *harassment* and *disrimination*; in context, reviews mentioned discrimination in hiring practices, harassment from management, customers, or other employees. Punitive terms such as *demotion, penalty, violation* were also rated lowly; reviewers complained of severe/unjust penalties, often to do with being on time. Violations were mentioned in relation to management and health and safety, probably due to a lack of management concern for the security of workers.

Words associated with job entitlements: *break, vacation*, and also *overtime*, which was frequently mentioned alongside *lot* and *mandantory*. This indicates unfavourable views towards mandatory overtime and possibly also not a lot of break and/or vacation time.

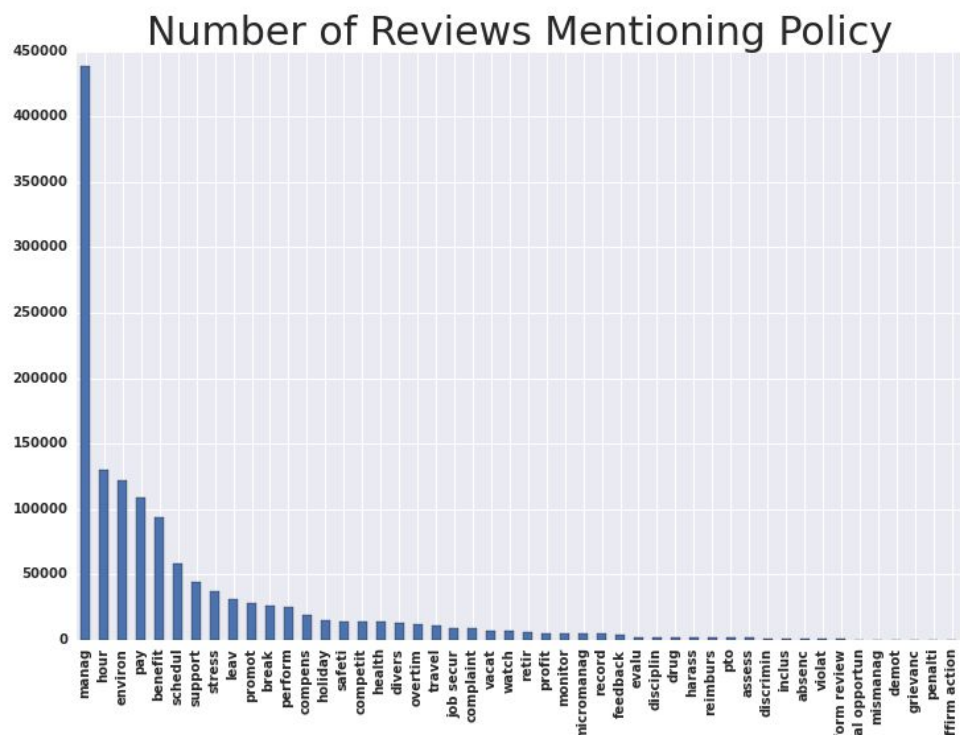


Image 16: Number of reviews mentioning policy term

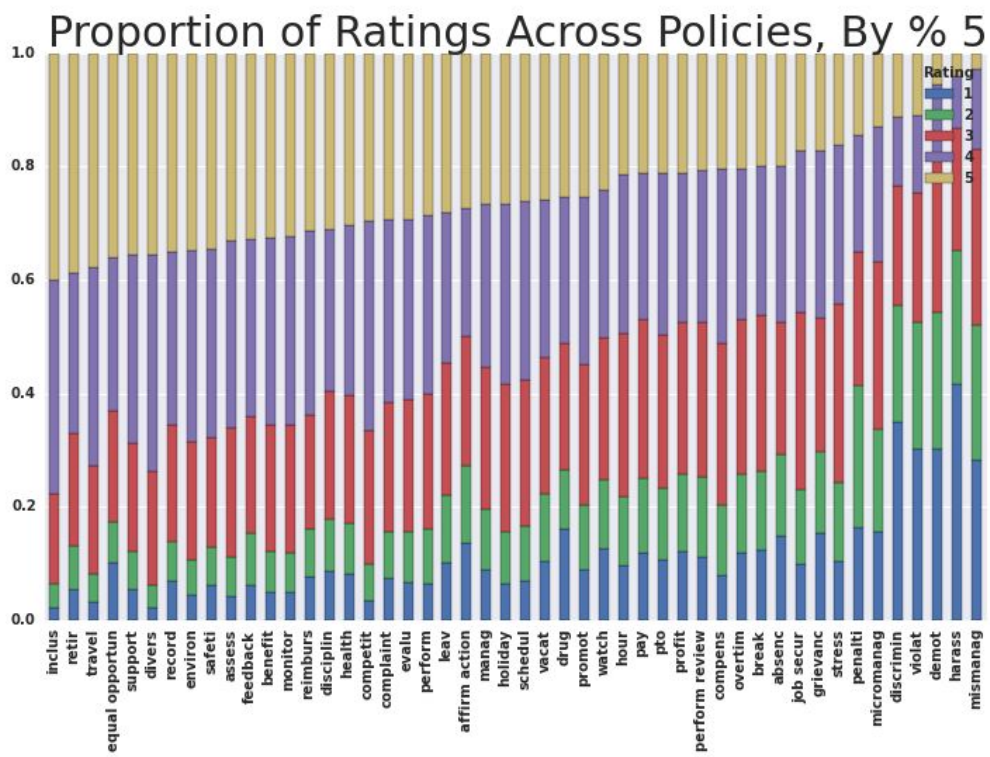


Image 17: Proportion of ratings across policy terms, ordered by % of 5 ratings

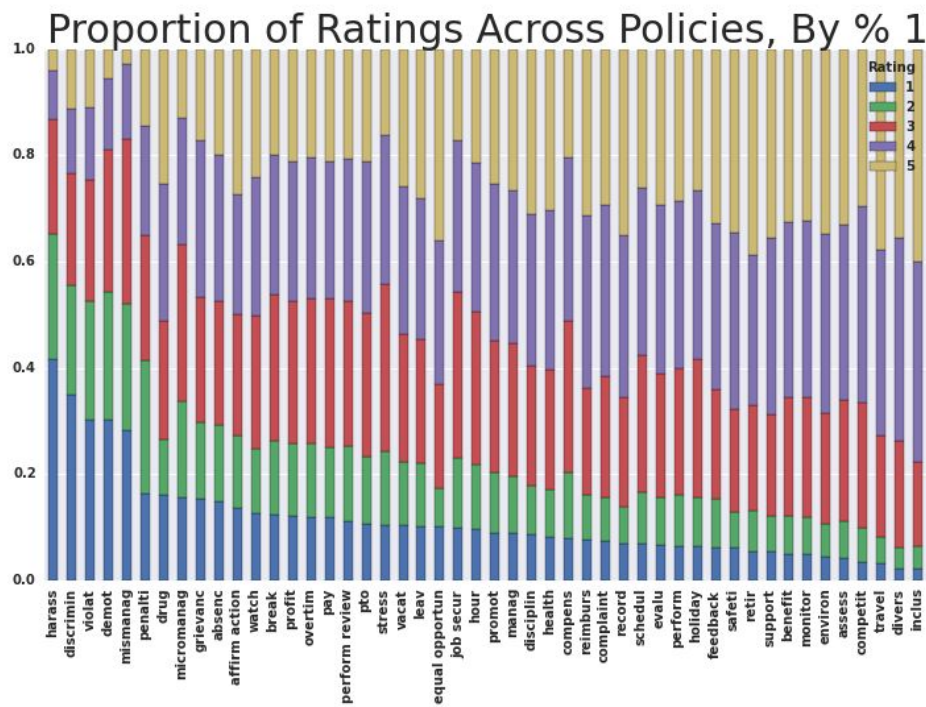


Image 18: Proportion of ratings across policy terms, ordered by % of 1 ratings

NLP Experiments

In this section, I compare differences in the review texts amongst groups of different dimensions. First, I simply examine the differences in the frequency with which terms occur in each group. Then, I use a Multinomial Naive Bayes Classifier (see appendix) to find terms whose coefficients are largest and thus are most important for predicting the reviews that belong in either class.

High Rating vs Low Rating (All Reviews)

I define high rating as ratings of either 4 or 5; low rating is defined as ratings of either 1 or 2. The full results table is presented in appendix table **6**. The terms that were most different in their frequency of occurrence in low rating reviews compared to high rating mentioned *management* and other *employees*, who were often the subject of complaints. (See example below) Also mentioned were *hours*, *pay*, *poor*, *care*, *expect*: workers were dissatisfied with the hours and pay; other conditions were poor; and management showed a lack of care and had unrealistic expectations. The Naive Bayes results (appendix table **7**) paint a stark picture of the work conditions; outside of management that was failing, job related terms mentioned poor training and an unhelpful environment.

For high ratings, reviews were much more likely to mention *learning*, referred to *co-workers* and team rather than other employees, and the availability of *opportunities* and *challenges*. The Naive Bayes terms were similar; reviewers who viewed their jobs favourably came from supportive environments that provided learning opportunities, friendly co-workers, working within teams, and benefits that were fair. Training and possibilities for advancement were also viewed positively.

Example: Low Rating

'you KILL yourself working for this company and they do not pay you a living wage. You can be prepared to have 10 managers all yelling your name for help all insisting that they take priority over each other.'

Example: High rating

'I loved working there. The management team stays constantly involved with all of the hourly employees. They offer competitive hourly pay with a great benefits package.' Since job requirements are likely to be extremely different for different pay scales, I also condition on the reviewer being low wage (those within the salary group \$10,000 or \$20,000), and on the reviewer being high wage (salary group \$80,000 and above).

High Rating vs Low Rating (Low Wage)

The dynamics of the terms used in low-rated reviews for low-wage reviewers vs high rated reviews were quite similar for the general population, in large due to the fact that most reviewers are low wage earners in my sample (about 80% of all reviewers). The Naive Bayes classification found that while the top terms for positive reviews were largely similar, except for mentions to do with the nature of low-wage occupations (*store, customer*), the negative reviews differed more so, with more references to abject working conditions (*desperate, slave*), and mentions of punitive actions (*threaten, punish, warn, excuse*), which highlights the contentious environments that some low-wage workers are subjected to. (Full results: see appendix table **7** and **8**.)

Example: Low Rating

'An average day revolves around the simple routine chores of a given station. Restocking, serving, cleaning, not much if any break from this routine. I learned to some extent to use a cash register and to fold a burrito. Management is a mixed bag, on some days very uplifting and professional. Some of the other days rude, confrontational, aggressive, and demanding. My co-workers are usually upbeat and active. Fairly rarely rude and insulting. Hardest part of the job is probably dealing with bad customers. Best part of the job is probably the culture generally aiming towards being upbeat and cheerful, albeit

occasionally a sense of depression seeps out every now and again from both co-workers and management.'

Example: High Rating

'good place to work for, pay not so great but pays the bills. most people enjoy what they do and work goes by pretty fast, benefits are good as well, when you work on weekends they provide food for you.'

High Rating vs Low Rating (High Wage)

The top words used in all high rating reviews across all three groups (all reviewers, high wage reviewers, low wage reviewers) look roughly similar, with the differences in the high wage reviewers group referring to aspects of the job that are more prevalent for workers in that group: *benefits*, *opportunities* and *challenges*, and *project-based* work. The Naive Bayes terms also confirm this, alongside additions of terms like *culture*, which is not mentioned in other groups. The top words for low rated reviews looked very similar to other groups under frequency counts, however, under Naive Bayes, the terms looked quite different. In these reviews, more frequent mention of *cost*, *number*, *decision* were made, indicating a greater level of responsibility in these roles. Additionally, there were more complaints of office *politics* and *upper management*. *Layoff* was also mentioned, indicating that this is an unpopular form of employment termination for workers in this group. (An low-satisfaction occupation, "pharmacist" also made an appearance.) (Full results: see appendix table **9** and **10**.)

Example: Low Rating

'Good benefits and vacation time, but this does not add up to a higher paying salary or a clear career path. Too many "good old boys" and people in higher positions with no management or leadership skills.'

Example: High Rating

'I learned about software engineering with the cellular infrastructure group. The people were always awesome. My management tried to accommodate me during a difficult divorce, but it did affect my work too much, which was sad. I had so much more to offer Motorola with my skills The

most enjoyable part of the job were the intelligent people you worked with. Sometimes I wish I could go back in time to work with them again. Excellent people.'

Market Value Growth vs Market Value Decline

I repeat the same exercise of classification, except in this instance looking at terms used in firms who were in the 75th percentile and above for market value growth in 2016, and firms who were in the 25th percentile and below. The differences in word frequency mostly represented the compositional differences of firm industries in both cases. Terms favouring market value growth firms were related to work environments of those firms: *office, clients, products, bank, account*. Similarly, for market value decline firms, terms such as *clean, stock, crew, cashier* were used. The Naive Bayes analysis was even more explicit; the market value decline firms were identified by name. (Full results: see appendix table **11** and **12**.)

Example: Market Value Growth

'I have learned so much knowledge in field of investment banking. The work place environment is fantastic by the help of management. i have built a new team at a critical opposite situations and maintaining smoothly. The most enjoyable part of job is settling the trades at particular time limit.'

Example: Market Value Decline

'there is really no typical day at work. I ring up sales and put merchandise on the floor. The circumstances around these tasks are always different due the customer interaction. What I have learned is that despite the economy, people still like and want to shop. The management is supportive and approachable. But they are so overwhelmed with trying to run a store these days without the resources available to them in the past, they really do not have the time to train as extensively as they did once before. My co-workers are the most enjoyable part of the job. They are there when you need them most during a tough day at the store. The hardest part of the job is the low pay and the lack of hours.'

Conclusion

This analysis provides novel insight into how employees view their jobs. While the majority of reviewers rated their jobs positively, I have found that negative reviews of jobs are concentrated in particular firms and occupations. Dissatisfied workers often complain of poor management, high turnovers, a lack of benefits, while satisfied workers enjoy a supportive work environment and feel valued within their companies. The low rating occupations had a high stress to compensation ratio; that is, many felt inadequately compensated for the amount of on-the-job stress endured, while high rated occupations were low stress, although not necessarily highly compensated. From the perspective of workers in the current U.S. labour market, competition is high and the quality of working conditions are greatly variable. It seems that high pay positions also accompany greater stress and responsibility, while low pay positions are also under tremendous pressures from the large pool of available low-skilled labour which makes such workers feel increasingly disposable and subject to the whim of their managers. The creation of mid-range jobs that compensate adequately and allow for a manageable stress load may relieve much of the pressure workers face on the uncertain job market.

Appendix

Appendix 1a: Review Example

1. 

2. **Fantastic company with many opportunites for growth**

3. **IT Manager** (Former Employee) - **San Jose, CA**

4. **June 27, 2017**

Adobe is a company with a highly siloed IT environment but a lot fo good people. On any given day I was given the opportunity to learn and implement something new to help the organization. This could be the opportunity to teach management classes, to propagate metrics/KPIs throughout my BU, to manage a corporate acquisition at at one point to even make a film!

This was easily the most enjoyable part of the job - any idea I had, even down to remodeling our entire global support structure - was reviewed, supported and often implemented!

The hardest part of the job was some upper management resistance and a tendency to take credit for other's work, including taking power point presentations and simply changing the owner's name.

Workplace culture is great - people are open, genuine, and helpful regardless of their BU, despite IT being siloed. I've never had better employees in my life.

Pros	Cons
Free coffee, good cafe, many opportunities for growth	IT Stagnation - was informed no NEW growth or change for minimum of 3 years.

1. Ratings: number of stars out of 5
2. Job title
3. Location of review
4. Date of review
5. Text of review

The blue boxes indicate terms that may be important in determining the rating given by the reviewer.

For salary reports, the following data is collected for each company:

Appendix 1b: Salary example



1. Job title

2. Average Salary

Since the salaries of each reviewer is not provided, I can estimate it using the average salary reported for each job title. A key limitation of this step is that location is not accounted for, which may introduce some noise.

Appendix 2: Examples of Reviews

Example: Oil and Gas Extraction

"A typical day at work, I check emails, run business objects reports, record lease data entry, and run acquisition reports on leases. I learned the software knowledge to access lease records and verify state's holder reporting and dormancy period. Management has continued to open opportunities for me to work on new projects. The co-workers at EP Energy have been very helpful in my work flow process. The hardest part of the job is during the course of any project, the extensive research could take longer than accounted for. The most enjoyable part of the job is the work environment and the success of completing each project in a timely matter."

Example: Truck Transportation

'My experience with the company was pleasant while with my trainer. However, after I was in my own truck I was extremely disappointed. I spent a great deal of my service hours at shippers waiting for loads which were not ready yet. Often, they had to finish making the product to load my truck. This resulted in me making more money while I was training. I was only solo-driving for a couple months....but, being away from home was not worth less than \$500/wk take-home'

Example: Executive Assistant

'I enjoyed doing executive assistant work for CHS, it was part time work and I am looking for something full time. I took on many tasks with CHS such as, calendar management, incoming/outgoing calls, arrangement of business meetings, and event coordinating.'

Example: Pharmacy Tech

"This place is probably one place I would never recommend anyone to ever work for. Let me start with management. The town I'm based out of doesn't have a manager to help with problems. The closest one is a hour and a half away and only comes up once or twice a week for about 3 hours, so there's no one to turn to with issues. The second is pay. For all the B.S

that we have to deal with, from upper management is ridiculous. They expect so much out of one person it's way to overwhelming then get mad when you're score card isn't up to par with there expectations. but hey when it is good we get to pick a snack out of a drawer in the manager's office (they have a limit of \$1.25 to spend). that's all you'll see for having good scores oh except for the yearly 2% raise you may get. Also the vehicles they offer, pretty much expect to be broke down somewhere once a month. You may get lucky when you start out and get a nicer one. Basically don't work here unless you are looking for something to barely get by. You'll hate life. I guarantee It."

Example: High Rating (Contractor)

'a typical day at work was always fun. My coworkers were very out going and fun. Working at HP I learned new skills. The management was hard on us but we gave them a reason not to be because we did our work in a timely manner. The hardest part of working for HP is the many phone calls that we received throughout the day, but once I figured out a regimen on how to balance it, it became very easy. Everything about HP was enjoyable.'

Example: Low Rating (Contractor)

'Pile on a lot of work for contractors who gladly accept with the hope that they may be hired on full-time. I saw several people work extremely hard and stress until they came to the realization that they were not going to be hired on full-time. This company also made a good friend of mine train someone who had been a part of the outsourcing plan only to turn around and let her go from her position. Shame.'

Example: High Rating (Freelancer)

'My job is very fun, meeting new people and getting to know their perceptions about a product already in the market or about to be introduced. In this job, I am learning a lot example Korean language for sometimes I do translate from English to Korean, learn to enter data and how to conduct a survey in a professional manner. Since we are all freelancers, everybody is kind of a "boss" on his/her own. However, our team is an exciting team, energetic and always ready to deliver. It is a fun and educative team. The hardest part of the job is at the very beginning. Trying to make sure the right words are used not to scare respondents and a proper introduction of yourself. Apart from this, the rest is stress free. The most enjoyable part of the job is trying to

communicate from English to Korean. Is kind of learning a new language, which I like. I love challenges.

Example: Low Rating (Freelancer)

'This agency does not find you work unless they have run out of friends and favorites of theirs. The other situation I found was that my fabulous agent was looking for a job for herself and was focused on that. Once she found one, she left.'

Example: \$20,000 Salary Group

'Supervalue was a good place to start off my "career" so to speak. There is many things that can be learned there, but one major aspect I learned was how to talk to and deal with customers. The management was solid and was on top of things for the most part, which made the store run smoothly.'

Example: \$100,000 Salary Group

'This is a great company to work at. Lots of exciting projects. Good people and many benefits including life insurance, medical, dental, vision, and others'

Additional Appendices: See AppendixSheets

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