The Impact of Decreasing Defined Benefit Plans on Employee Turnover

Claire Gregory
Dr. Deborah Harrell, Faculty Advisor
The University of Tennessee, Knoxville

Abstract

The gradual adoption of defined contribution plans has been a significant change in the pension system in the United States over the last few decades. The principal side effect of the shift observed in this research is the potential of defined contribution plans to dis-incentivize employee loyalty and contribute to increased employee turnover. This is explored through analysis of several data sets including:

- access, participation, and take-up rates of defined benefit and defined contribution plans across various categories including worker characteristics,
- and geographic regions
- quit rates across these same categories in an attempt to understand the shifts in access, participation, and take-up rates.
- correlation coefficients of S&P500 Index Returns and the data sets listed above.

The data analysis produced three key findings pertaining to (1) the relationship between market returns and access, participation, and take-up rates, (2) observations between retirement benefit and employee turnover trends, and (3) the scope of the overall impact of benefit plans on employee turnover.

Introduction

- Originally, an employee relied almost solely on his or her employer to provide a steady flow of income when he or she retired through the form of a defined benefit plan—otherwise known as a pension plan—as a source of income. Defined contribution plans allow for less stable financial planning.
- In 1984, a defined contribution plan—also known as a 401(k)—became a popular choice among employers because it shifted the financial risk of an employee’s retirement from the firm to the individual (Bond, 2017).
- The gradual adoption of defined contribution plans has been a significant change in the pension system in the United States over the last few decades. This change has been seen in the gradual adoption of defined contribution plans and increasing employee turnover. The gradual adoption of defined contribution plans has made defined benefit plans and increasing employee turnover more popular among workers while quits levels increased among all workers in the same period of time. The take-up rates decreased due to rising overall access to these benefits and a constant rate of participation. The interesting aspect about this though, is that overall access increased due to rising access to defined contribution plans and declining access to defined benefit plans. Though quits levels are rising across the country while the overall take-up rate of employee benefits are declining, the exact impact of benefit plans on employee turnover is still unclear, even when surveying specific industries and geographic regions.

Data and Methodology

For this research, annual data has been collected from the National Compensation Survey and the Job Openings and Labor Turnover report, both of which are written released by the U.S. Bureau of Labor Statistics.

Data collected from National Compensation Survey:

- Access rate: Employees are considered to have access to a benefit plan if it is available for their use (Acosta and Wiatrowski, 2018, p. 569).
- Participation rate: Employees in contributory plans are considered participants in an insurance or retirement plan if they have paid required contributions and fulfilled any applicable service requirements. Employees in noncontributory plans are counted as participating regardless of whether they have fulfilled the service requirements (Acosta and Wiatrowski, 2018, p. 569).
- Take-up rate: The take-up rate is an estimate of the percentage of workers with access to a plan who participate in the plan (Acosta and Wiatrowski, 2018, p. 569).

Data collected from Job Openings and Labor Turnover report:

- Total separations: Total separations include quits, layoffs and discharges, and other separations and is referred to as turnover (Bureau of Labor Statistics, 2014, p. 2).
- Quits: Quits are generally voluntary separations initiated by the employee. Therefore, the quit rate can serve as a measure of workers’ willingness or ability to leave jobs (Bureau of Labor Statistics, 2014, p. 2).

Research Question:

What could the data tell us about a possible link between decreasing defined benefit plans and increasing employee turnover?

Because of the exploratory nature of this research, the retirement plan and employee turnover data are analyzed by means of univariate analysis as well as compared and contrasted to identify a potential relationship. Data is also be collected from S&P 500 returns through Bloomberg in an attempt to understand the shifts in access, participation, and take-up rates in defined benefit and defined contribution plans offered by employers.

Analysis

Benefit Trends

- Analysis: Benefit Trends, data created by worker characteristics and geographic region.
- Benefit Trends: The analysis of defined benefit plans and increasing access to defined contribution plans. However, though access is increasing, take-up rates have seen a steady decline across all defined plans.

Further Analysis Using S&P 500 Data

- Significant correlations (i.e. a correlation coefficient greater than 0.8 or less than -0.8) are found only four times throughout the entire data set.
- All four of these occurrences are positively correlated relationships between S&P 500 index returns and either access or participation rates of defined benefit plans.

References


Final Discussion

Retirement benefits have historically given employees an incentive to remain loyal to a company, especially through the use of defined benefit plans, and when employees are incentivized to stay at a company, employee turnover naturally decreases. However, retirement benefits are not the only factor contributing to employee turnover. With this being said, some of the data analyzed throughout this research suggests that there is a relationship and that it should be explored more.

Key findings:

1. Year-over-year market returns have little to no impact on access, participation, and take-up rates as employee turnover regardless of geographic regions and industries. The correlation coefficients were too weak to infer a connection with the high volatility of the market in recent years.
2. Take-up rates of all retirement benefits decreased from 2008 until 2018 among all workers while quits levels increased among all workers in the same period of time. The take-up rates decreased due to rising overall access to these benefits and a constant rate of participation. The interesting aspect about this though, is that overall access increased due to rising access to defined contribution plans and declining access to defined benefit plans.
3. Though quits levels are rising across the country while the overall take-up rate of employee benefits are declining, the exact impact of benefit plans on employee turnover is still unclear, even when surveying specific industries and geographic regions.

Though there is still much to learn about the impact of benefit plans on employee turnover on a national scale, let this research serve as a layer to the foundation of what is yet to come.