

The Impact of Decreasing Defined Benefit Plans on Employee Turnover

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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 severance for the employee's service and loyalty throughout his or her career.
- 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).
- During the time of transition to defined contribution plans, there was a recession in the 1980s that introduced increased competition, power shifts, and downsizing to the workforce that greatly impacted the employment culture across all generations (Goldberg, 2018).
- This impact lead to a faltering company loyalty among many which is still evident in the workforce today through increasing employee turnover.

If companies had continued to assume the financial risk associated with defined benefit plans in order to give their employees a secure financial future, would there be a different story surrounding employee turnover today?

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 and 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 includes 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 quits rate can serve as a measure of workers' willingness or ability to leave jobs (Bureau of Labor Statistics, 2014, p. 2).

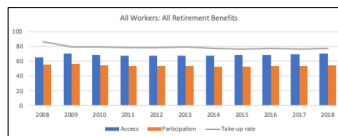
Research Question:

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 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.

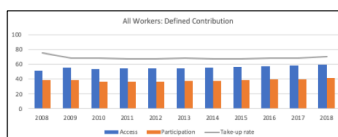
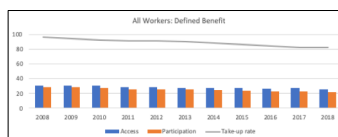
Analysis

Benefit Trends (also categorized by worker characteristics and geographic region)



All Worker Benefit Trend Analysis:

Since the initial decline from 2008 to 2009, overall access has remained relatively steady due to the juxtaposition of declining access to 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 benefit plans.



Annual rate of change of access, participation, and take-up rates

All Workers	ALL RETIREMENT BENEFITS			DEFINED BENEFIT			DEFINED CONTRIBUTION		
	Access	Participation	Take-up rate	Access	Participation	Take-up rate	Access	Participation	Take-up rate
2008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2009	7.58%	1.79%	-6.98%	0.00%	0.00%	-2.08%	7.69%	0.00%	-9.21%
2010	-2.82%	-3.51%	0.00%	0.00%	-3.45%	-2.13%	-3.57%	-5.13%	0.00%
2011	-1.45%	-1.82%	-1.23%	-4.45%	-1.86%	-1.09%	1.85%	0.00%	-1.45%
2012	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2013	0.00%	0.00%	1.27%	-3.45%	0.00%	-1.10%	0.00%	2.70%	1.47%
2014	0.00%	-1.85%	-2.30%	0.00%	-3.85%	-2.27%	1.82%	0.00%	-1.45%
2015	1.47%	0.00%	-1.28%	0.00%	-4.00%	-2.27%	1.79%	2.63%	0.00%
2016	0.00%	1.89%	1.30%	-3.57%	-4.17%	-1.16%	1.75%	2.56%	1.47%
2017	1.45%	0.00%	-1.28%	3.39%	0.00%	-2.35%	1.72%	0.00%	0.00%
2018	1.43%	1.85%	1.30%	-7.14%	-4.35%	0.00%	1.69%	5.00%	2.90%

Employee Turnover Trends

INDUSTRY AND REGION	Annual quits levels by industry and region, not seasonally adjusted (in thousands)						Sparklines
	2008	2010	2012	2014	2016	2018	
Total	30,355	22,057	25,081	30,145	35,879	40,073	
Total Private	28,774	20,748	23,535	28,726	33,886	37,913	
Mining and logging	181	89	194	180	162	243	
Construction	1,604	901	975	1,294	1,490	2,055	
Manufacturing	1,883	1,135	1,296	1,429	1,779	2,438	
Trade, transportation and utilities	6,708	4,921	5,562	6,999	7,701	8,548	
Information	446	349	442	445	479	575	
Financial activities	3,442	2,019	2,088	3,339	3,217	3,395	
Professional and business services	5,213	3,987	4,188	5,779	7,140	7,595	
Education and health services	3,498	2,987	3,302	3,897	4,642	5,042	
Leisure and hospitality	6,542	4,413	5,214	6,262	7,921	8,470	
Other services	1,223	951	1,068	1,270	1,308	1,501	
Government	1,581	1,308	1,545	1,618	2,043	2,159	
REGION							
Northeast	4,446	3,477	3,689	4,247	5,130	5,375	
South	32,238	20,888	24,507	32,251	36,394	34,312	
Midwest	6,615	5,000	5,651	6,740	4,973	9,008	
West	6,996	4,690	5,231	6,859	8,383	9,377	

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.

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, or lack thereof, 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 well 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.

References

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