

**The Social Impact of Activist Campaigns on Targeted
Companies (Specifically Relating to the Social Category of
ESG Scores)**

by

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Table of Contents

ABSTRACT	4
INTRODUCTION.....	5
PREVIOUS LITERATURE REVIEW	9
HYPOTHESIS	11
DATA.....	11
DATA COLLECTION	11
ISSUES WITH THE DATA	14
METHODOLOGY.....	15
SINGLE YEAR REGRESSIONS	16
MULTI YEAR REGRESSIONS	17
DISCUSSION AND RESULTS	18
SINGLE YEAR REGRESSIONS	18
MULTI YEAR REGRESSIONS	19
ROBUSTNESS CHECKS	23
LIMITATIONS.....	25
CONCLUSION.....	26
FURTHER REMARKS AND FUTURE RESEARCH	27
APPENDIX	30
BIBLIOGRAPHY	34

Abstract

I investigate the social impact of activist hedge fund campaigns by looking at social scores of companies targeted by activists. Research in the ambit of hedge fund activism has thoroughly covered the internal economic benefits that this blockholder strategy carries, with little to no information on the external implications of such investments. The results in this research highlight the fact that consequent to being targeted by an activist campaign, companies will see a deterioration in various socially focused scores. There is also evidence that internal scores directly linked to operational changes are the most affected by these investments. This thesis provides new information on the externalities of the investments carried out by hedge funds implementing activist strategies.

Introduction

Shareholder activism is an investment strategy that involves the purchase of more than 5% of a business' total equity in order to directly influence structural and operational decisions made at the executive level. Each fund which aims at making this type of investment is required to make a 13D filing, which includes the specific intentions of the transaction. The growth of hedge funds, including activists, has been considerable over the years, with an incredible number of companies being subject to activist campaigns despite COVID's monetary impact. Monitoring these transactions to ensure the livelihood of the targeted companies become imperative as more money is poured into this industry each year, and the value of dry powder climbs to an all-time high.

Activism has proven to be a very lucrative financial tool to boost return maximization, although its intricacy and size make it a relatively rare and undocumented strategy. In fact, all but one of the top ten activist funds achieved more than 15% return in 2021¹. This is because of the direct involvement in company decisions making, allowing for very profitable short term growth periods. However, the Assets Under Management (AUM) of this type are significantly lower to traditional hedge fund strategies, representing only about 4% to 10%² of the total, resulting in less existing research surrounding the topic. It is therefore fundamental that the implications of these transactions can be effectively measured in order to understand how companies are affected.

The controversial argument that serves as the basis for this thesis is the way in which activist hedge funds extract value from their investments. This form of transaction serves the

¹ Black , Josh. *The Activist Investing Annual Review* , 2022.

² **Note:** The figure 4% to 10% is a rough estimate of AUM relating to activist strategies. All of the values available represent rough estimates and have no correlation between one another. Measurements have different assumptions and thus differ in total value. Because of this, 4%-10% refers to a compiled range which has been generated with reference to various values from different sources.

sole purpose of maximizing short-term profit with holding periods that are becoming increasingly reduced. As a result of this goal, we see that stakeholder interests are overlooked through intensive cost transformation procedures by which headcount is slashed and benefits are reduced enormously. The research question that this thesis therefore attempts to answer is: can you empirically establish a correlation between displaced social value and activist campaigns in targeted companies?

The importance of such a question is rooted both in the necessity for transparency and the adaptation to recent ESG trends. Throughout the past decade, the myopic focus on shareholders prioritization has been washed away with a radical shift to sustainability as a fundamental priority. Firstly, as sustainable assets reach new record levels with exponential growth patterns, investing in a company with sound ESG measures is becoming a priority for investors across the globe. Although standardization of ESG reporting and auditing has not yet been implemented as a requirement by institutions such as the SEC, its prospect is becoming more and more of a reality. The documentation on the real effects of implementing sustainable practices is still in the development phase, with strong discussion and criticism surrounding the topic. Nonetheless, the data on this type of investment over the years shows an astonishing upwards trend with one third of total U.S. assets analyzed using ESG criteria³. This globally expanding trend needs to be harvested efficiently by companies if they want to prevail in the future.

This focus on ESG is symptomatic of a radical change in the way businesses are operated due to increased scrutiny from the public eye. There has been a dramatic shift in the

³ Carlson, Debbie. "ESG Investing Now Accounts for One-Third of Total U.S. Assets under Management." *MarketWatch*, MarketWatch, 17 Nov. 2020, <https://www.marketwatch.com/story/esg-investing-now-accounts-for-one-third-of-total-u-s-assets-under-management-11605626611>.

consideration of stakeholders in addition to acting on behalf of the shareholders. Companies are now consistently under investigation for environmental, social and governance practices that do not conform to high standards. The digital revolution that has shaped the 21st century, paired with large emphasis on disclosure has created an unprecedented transparency into the inner workings of the largest companies. Social media platforms such as Instagram and Twitter have allowed for information on corporate malpractices to be available incredibly quickly and to a vast audience. The new generations have shown significantly more interest in issues such as environmental degradation and human rights conservations than in previous years. This has led companies to suffer pronounced losses in corporate reputation and value due to consumer dissatisfaction. We know from previous literature that “brand attitude and purchase intention deteriorate with the negative corporate reputation”⁴, empirically indicating that negative news can have a real impact on the financial value of a company.

These two factors are a nearly perfect signal that companies, and their respective investors, should increasingly shift their focus on improving their reputation by demonstrating active interest in ESG. The ability of companies to quickly adapt alongside modernizing social trends and requirements has become of utmost importance. The short-term gains in the value of companies invested in by activist hedge funds results from quick strategic actions which can inhibit the long-term value of companies. Elina Ma (2021)⁵ identifies that it is in the interest of funds to cut costs in different areas within the company as it leads to improvements in ROA. Nonetheless, these cost cuts, which are typically implemented across a spectrum of target companies, may result in a hinderance of long-term growth and sustainability. Reductions in spending in R&D, especially human development,

⁴ Jung, Na Young, and Yoo-Kyoung Seock. "The impact of corporate reputation on brand attitude and purchase intention." *Fashion and Textiles* 3.1 (2016): 1-15.

⁵ Ma, Yilin, "Growth vs. Efficiency: How Activist Hedge Funds Create Value for Public Companies" (2021). Wharton Research Scholars. 219.

can severely strain the internal workforce. Furthermore, the cutting of employee headcount, together with reduction in associated benefits and pay may result in both understaffing and underpaying. These effects may be dire on the social dynamic of the company.

The purpose of this thesis is to provide a vital piece of information that has been missing within the current research: what is the *real* impact of these activist investments? Changing views on sustainability don't represent the fact that companies have overwhelmingly moved to philosophies of environmental mistreatment and inconsideration of stakeholder, but the uncovering of what has actually existed for centuries through new information. ESG data is the analysis of elements in the world which we did not have the capabilities to quantitatively measure in the past due to technical and intellectual limitations. In the same manner, the aim of this paper is to complement the vast number of new findings in the ambit of the financial world. The results attempt to illustrate the fact that despite the thoroughly researched economic value produced in these transactions, the social value of the target companies is negatively impacted. Moreover, investment portfolios need to implement sustainable measures in their calculations to demonstrate the real impact of the transactions. Financial measures are limited in their illustrative capabilities, showing only the apparent economic value increase. There are no calculations made as to the negative externalities imposed on the stakeholders, which can deeply affect the true value of an asset especially in this socially conscious context.

The research in this thesis involves a sample of more than 100 companies targeted by activist campaigns in 2016. Using a difference-in-differences model to compare the social scores of these companies in the periods of 2010-2015 versus 2016-2021, empirically demonstrates such a decline. Overall, the results are statistically significant, creating a foundation for discourse on the real effects of hedge fund activism.

Previous Literature Review

Current literature on hedge fund activism is limited by the relative size of the strategy and focuses mainly on its economic value creation. The popularization of Hedge Funds as an important financial tool has been followed quite closely by publications in financial literature that digs deep into the strategies implemented. Despite various papers existing on hedge funds, activism has been overshadowed by more traditional strategies such as long/short in the academic sphere. The Paper “Hedge Fund Activism, Corporate Governance, and Firm Performance” by Brav et. Al establishes the fact that with activist intervention, there is an increase in the value created for the targeted firms⁶. However, this value manifests itself specifically in “payout, operating performance, and higher CEO turnover”. Furthermore, the authors state the effectiveness of this tactic in putting the value that is transferred to the shareholder as the main priority, showing the fact that other stakeholders are made secondary. These results are also explored and supported by Klein and Zur (2006)⁷ and Clifford (2008)⁸. Both these papers focus specifically on shorter-term value creation, but Bebchuk et. Al (2015) finds that there is no statistical evidence for adverse effects on the “long-term interests of companies and their shareholders”⁹.

Some papers exploring the topic of social performance have emerged over the last couple of years. Insight into financial return has helped establish hedge fund activism as an effective manner in the creation of excess value, which is incredibly important for investors

⁶ Brav, Alon, et al. "Hedge fund activism, corporate governance, and firm performance." *The Journal of Finance* 63.4 (2008): 1729-1775.

⁷ Klein, April, and Emanuel Zur. "Hedge fund activism." (2006).

⁸ Clifford, Christopher P. "Value creation or destruction? Hedge funds as shareholder activists." *Journal of Corporate Finance* 14.4 (2008): 323-336.

⁹ Bebchuk, Lucian A., Alon Brav, and Wei Jiang. The long-term effects of hedge fund activism. No. w21227. National Bureau of Economic Research, 2015.

and shareholders. However, few papers have concretely analyzed the effect that this has on other stakeholders within the targeted companies. DesJardine and Durand (2020) start exploring this unknown area in their paper “Disentangling the effects of hedge fund activism on firm financial and social performance” where there is an idea of non-monetary performance as an effect of activist campaigns. The findings in this paper are definitive to the negative effects that these types of investments can have on the stakeholders of a company¹⁰. As a matter of fact, there is the clear distinction between the short-term gain as seen in market value and profitability compared to the long-term losses in social performance. The authors argue that the strategies employed revolve around shareholders as the sole beneficiaries of their effects, thus leaving behind employees and third parties to absorb the costs. Other papers such as “Activist Hedge Funds and Takeovers: Their Effects on Employment and Performance”¹¹ also looks at another aspect of this issue with detail on headcount reduction showing a net decrease as a result of activist fund involvement.

Although some research of this nature has been conducted, it is fairly broad and only represents a marginal understanding of the true activist footprint. For example, the unit used to measure the sustainability of companies is CSP (corporate social performance), which is quite a compressed and holistic measure of all the issues which this thesis aims to explore. In fact, CSP is a unique measurement which includes both social and environmental factors through the analysis of multiple data points. Despite its effectiveness as a measure of a company’s overall sustainability, it does not give an accurate picture of what is specifically being affected. As well as this, the simple notion of employee reduction does not draw any conclusion as to the social performance of the company. There is no current breakdown of

¹⁰ DesJardine, Mark R., and Rodolphe Durand. "Disentangling the effects of hedge fund activism on firm financial and social performance." *Strategic Management Journal* 41.6 (2020): 1054-1082.

¹¹ Kuvandikov, Azimjon, Andrew Pendleton, and Marc Goergen. "Activist hedge funds and takeovers: their effects on employment and performance." *British Journal of Management* 33.1 (2022): 346-368.

the scores that directly relate to the psychological and physiological health of employees as a result of activist interventions.

Hypothesis

The aim of this thesis is to highlight the effect of activist hedge funds on the target companies and based on the previous literature I have developed two hypotheses:

Hypothesis 1: Based on the previous literature, I believe that subsequent to an activist campaign, targeted companies will see a diminishing social score and its components as a result of operational reforms.

Hypothesis 2: It can be expected that for the variables directly impacted by these changes, there will be a larger difference in scores. These represent elements immediately adjacent to the reforms such as internal measurements of employee happiness and satisfaction.

Data

Data Collection

The information required to test out the two hypotheses is split into two categories: a collection of activist campaigns over various years and social score data on each of the targeted companies. The activist campaigns can be defined as the “event” and by observing the social scores both before and after this moment, we can determine if there has been a deterioration.

Data on activist campaigns is easily accessible through the SEC database, EDGAR, as the 13D filings are publicly disclosed. Professor Alon Brav of Duke University generously offered the use of his dataset which compiled all of this information. The dates of the “events” ranged from 1994 to 2016 but due to the limitations of the ESG data service

platforms collecting data from 2010 onwards, all information before then had to be discarded. To make an effective measurement of the event's impact, there had to be both a number of years before and after to track score changes. Consequently, I selected the filings for the 2016 year, which can be defined as the "event year". This was mainly for convenience as it allowed for 6 years prior and 6 years subsequent (including 2016 itself) to the event for measurement. As observed on Professor Brav's database, various reported companies overlapped, meaning that two or more funds invested in the same company either in the same year or in a different year. This was a problem as it meant that there were external elements potentially influencing the change in the social scores of the companies. A filter allowed for the removal of overlapping company identification numbers. A secondary set of filters which automatically eliminated the companies which received an investment equal to less than 5% of the total share value was also introduced. This allowed for the observation of activist hedge funds which only had a significant stake, and in turn power in the operative decision-making process.

ESG data was collected using the Refinitiv platform due to the variety of broken-down social scores available. As previous literature has highlighted, social performance after activist intervention has been measured using universal scores which incorporate numerous factors. The objective of this thesis is to specifically demonstrate a decrease in social values internal to a targeted company, excluding environmental and governance statistics. Furthermore, when looking at the overall social score itself, we see that there are certain constituents such as human rights violations are redundant to these specific hypotheses. Table (1) illustrates the Variables and their respective definitions. The inclusion of the social score helps to support the existing literature but it can also be used as a benchmark to better understand which specific social score is more/less influenced by the event. Having different score gives insight into **Hypothesis 2** as we can expect internal scores to change significantly

more than the two external ones. This thesis focuses on the final four scores listed in Table (1) to test out **Hypothesis 1**.

Variable Name	Definition
Organization ID	Identifying variable
Asset Identifier	Identifying variable
Ticker (tick)	Identifying variable
Community Score	General satisfaction of community surrounding company
Workforce Score	Externally measured score illustrating the efficiency of the workforce based on firm performance
Workforce/Training and Development	Score relating to the quality of the internal training programs
Workforce/Health and Safety	Score relating to internal Health and Safety standards and procedures
Workforce/Employment Quality	Perceived quality of the workplace and specific position
Workforce/Diversity and Opportunity	Internal DEI score regarding minority group programs

Table (1): Variables selected for regression analysis from the Refinitiv database

These scores give a comprehensive overview of funding provided towards the improvements of social standards within a company. For example, a reduction in “Diversity and opportunity” would suggest a declined interest in programs that push for equality across the firm. Consequentially, a reduction in equality across the firm reduces the social value of the firm itself.

The decrease in scores could also be caused by a market wide effect that could be due to any external event. The scores of the companies collected, ergo the “Treatment” companies, have to therefore be compared to a sample of “Control” companies. Hence, this

collection process was repeated with a list of 50 firms present in the S&P 500 index and cross referenced with professor Brav's dataset to ensure that they had not been targeted by activist campaigns. This was done by using a random selector as to remove potential selection bias, ensuring a variety of industries and characteristics throughout the sample.

Issues with the data

There were various data reliability issues encountered both with the collection and the analysis process given the relatively recent introduction of ESG platforms. The most problematic aspect was that only a certain number of scores was available for all companies in the treatment group. This issue was most likely due to the size of the companies as many of the larger conglomerates in the control group had high data accessibility and accuracy. For example, the hyper specific variables "*Employee Relations Objectives/Culture of Trust*", "*Internal Promotion, Training and Career Development*", "*Processes/Policy Skills Training*", "*Bonus Plan for Employees/Employees*", and "*Employment Quality Monitoring*" all resulted blank. Although scores such as "Workforce/Diversity and Opportunity" are considerably more specific than the overall "Social Score" or CSP, they may still fail to account for important changes resulting from activist campaigns. In fact, funds could implement agency cost cuts but maintain a strong diversity hiring program to maintain a façade, resulting in a score which is not accurately reflective of these changes.

Furthermore, there was a lack in precision for various of the widely available scores listed in "Table (1)". Out of more than 300 observations, only around 100 total companies would provide accurate data spanning from 2010 to 2021. A final filter was used to eliminate companies which had unexplainable and statistically improbably jumps between years. For example, some companies had scores going from 0 to 1 in a single year (the lowest possible score to the highest possible score).

Methodology

Figure (1) is a visual representation of what a single variable (Workforce/Diversity and Opportunity) looks like mapped out for all treatment companies directly from the raw data. As can be seen, the data collected was available in a given timeframe, with observation starting in 2010 and ending in 2021.

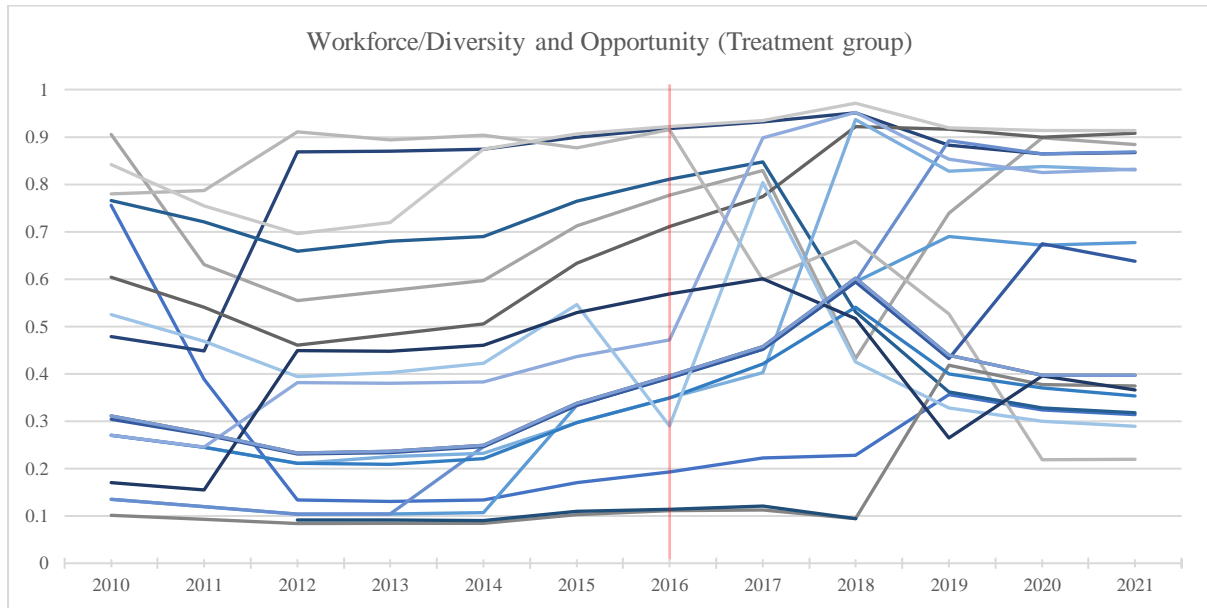


Figure (1): This graph illustrates the diversity and opportunity score for the treatment companies ranging from 2010 to 2021.

Although it is difficult to interpret such a variety of results, it is evident that increased movement occurs following the event year 2016, highlighted by the red line. Furthermore, it is clear that the effect, if any, is not immediate as the variables are measured yearly meaning that if a change takes place, it is not registered until the end of that same year. Activist policies are also not instantaneous as they require board and executive approval, which can be severely delayed in situations such as hostile campaigns.

The most optimal solution to analyse this data is the Difference-in-differences (DID) model, which attempts to measure the effect of the event on the treatment group as compared to the control group. The model also divides the “period” of time into two binary instances, namely the “pre” and “post” event. The way in which the computation is done is by

measuring the difference of the treatment and control group “post” event and subtracting the difference between the treatment and control group in the “pre” period. The regression analysis was conducted using two distinct complications: Single year and multi-year regressions. In order to conduct these regressions, the Stata software was used.

Single Year Regressions

The single year regression model is a direct comparison of the variable scores for the treatment group between singular “pre” and “post” years. As the event occurred in 2016, 2015 (one year prior to the investment) was used as the “pre” period. This is because nothing had taken place in that year and could eliminate any potential changes occurring in 2016 itself as a result of the campaign. This was then individually regressed against the years of 2017, 2018, 2019, 2021 respectively to see if there were any changes to the variables. Using the year 2020 as an example, a dummy variable was created to analyse the interaction between 2015 and 2020. This dummy variable included all companies, both treatment and control, in those two years “Y2020”. Two other variables were also created: “Y1520” which included all treatment companies for the years of 2015 and 2020 and the interaction term “Y2020var” which included all treatment companies just for the year 2020. These two latter variables enable the measurement of the difference in scores between the two years (distinguishing between treatment and control) to see how the activist campaign has affected these. The dummy variable, instead, allows for the same measurement whilst controlling for any external effect that could also be influencing the scores.

The mathematical interpretation of the model can be seen below where Y represents the impact of the event. In the formula, α represents the constant term, β represents the average change in Y between the two periods across both groups, γ , represents the difference

in Y across the two groups in both time periods, and δ is the true effect of the treatment or change in Y between the time periods of the treatment compared to control.

$$Y_{it} = \alpha_i + \beta T_i + \gamma t_{it} + \delta(T_{it} * t_i) + \varepsilon_{it}$$

$$T = \begin{cases} 1 = Treatment \\ 0 = Control \end{cases} \quad t = \begin{cases} 1 = Year a \\ 0 = Year b \end{cases}$$

Multi Year Regressions

The single year regression is effective in instances where a decisive and net change exists between the pre and post treatment years, but this may be difficult to observe in the case of activist campaigns. Reductions in social scores can be progressive as transformations implemented by activist hedge funds may not be so radical as to completely overwhelm the company in most cases. In fact, the nature of these ownership structures entails a non-controlling stake, which means proposed changes may encounter resistance and be applied in more cautious manners. As well as this, the dynamics of a large company are integrated in the pertaining cultural and operation structure, which cannot be overturned in a single year. Therefore, it is important to consider the effect of the campaign over all the subsequent years rather than in a singular year.

By applying the same logic of the single year regression, data can be divided into a binary time function where there is a “pre” and “post” event period. In this case, the pre variable includes all years before 2016, and the post includes all those after 2016 into consideration (and 2016 itself). This means it merges all datapoints and creates an interaction with all individual observations between the two periods. If we take the mathematical

interpretation of the regression previously illustrated, everything remains equal, but the definition for the term (t) changes:

$$t = \begin{cases} 1 = \textit{Post 2016 years} \\ 0 = \textit{Pre 2016 years} \end{cases}$$

As well as resulting in a more accurate regression, the increased number of observations has an impact on the statistical significance and precision of the result. Stata also has an in-built “diff” function which automatically computes this regression, which was used for simplicity. However, the use of the in-built function was only limited to the basic regression model as it did not allow to introduce fixed effects and other robustness checks.

Discussion and results

Single Year Regressions

The single year results demonstrated negative coefficients for a few of the interaction variables for most of the years following 2016, although their significance was very low in all instances. The regression in Table (1) demonstrates the “Employment Quality” score 4 years after the activist campaign has taken place.

<i><Reg WorkforceEmploymentQualityI Y2020 y1520 Y2020var></i>							
Variable	Coefficient	SE	R ²	t	P > t	95% LL	95% UL
Y2020	0.199	0.046		4.35	0.000	0.109	0.290
Y1520	-0.067	0.067		-1.00	0.317	-0.199	0.064
Y2020var	-0.132	0.104	0.023	-1.27	0.203	-0.336	0.072

Table (2): 2015-2020 DID regression. Exemplary regression using the single-year complication looking at the difference-in-difference between control and treatment for 2015 and 2020.

There is a negative coefficient of -0.132 illustrating a diminishing in the perceived quality of employment by the employees themselves. The P value of this result is of 0.203, indicating the statistical insignificance of the regression, despite it being the lowest value obtained using the single year regression. As a matter of fact, most variables had P values exceeding 0.5. Although these results are inconclusive on the effect of activist campaigns, the high coefficient is suggestive of an effect being present. As mentioned above, this is most likely due to the difficulty of measuring a difference-in-difference over only two years as the impact is seen on the longer term.

Multi Year Regressions

As expected, using multiple years in both the “pre” and “post” periods increases the accuracy and significance of the regression results. The first multi-year regressions computed were with reference to the composite social score of the treatment versus control companies. The computation of these regressions was to demonstrate that there was a deterioration of the various social categories at a holistic level. Given a trend of diminishing social scores, it can be deduced that the factors composing the social score may also be diminishing. The results are, in fact, of a net decrease in the overall social score at a statistically significant level. The first line of Table (3) demonstrates this very result, with a coefficient of -0.170 and a P value of 0. This result can be interpreted as a pejoration of the social score of the treatment company with respect to the control company by -0.170. It is important to note that since we are using a relative comparison model, this does not necessarily indicate an overall decrease in the absolute social score after 2016 compared to before.

Figure (2) is a visual illustration of this very fact, as the social score of the treatment variable seems to have similar values when comparing the pre and post event years. In fact, the figure illustrates the fact that in both the control and the treatment groups, there is a

parallel increasing trend before 2016, which is then broken after the event has taken place.

The treatment group, as a result, sees a decrease and subsequent plateau, whereas the control group stabilises with no significant decrease.

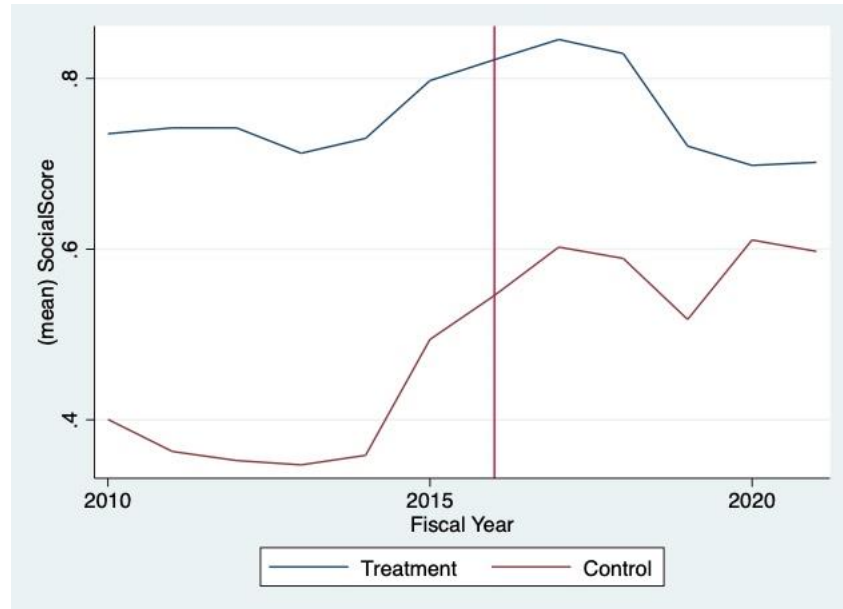


Figure (2): Social score mean divided between treatment and control groups.

When looking at the other variables, the most notable decrease was that of “Employment quality” with a very large coefficient of -0.221 and a P-Value of 0. Figure (3) is a visual representation of this variable where the mean lines, similarly to Figure (2), follow a parallel initial trend and reach a peak score in the year of 2017 to then decrease together. This specific graphic is useful to understand the extent of the event’s effect as the treatment group mean decreases to a point where it becomes lower than that of the control group, represented by the two lines crossing. It can be deduced that in a context of decreasing employment quality, companies subject to activist campaigns will see an ulterior decrease in this variable. This score demonstrating the largest drop subsequent to the event is consistent with **Hypothesis 2** given that “Employment quality” represents an internal evaluation of the perceived quality of the workplace and is therefore a more directly impacted variable.

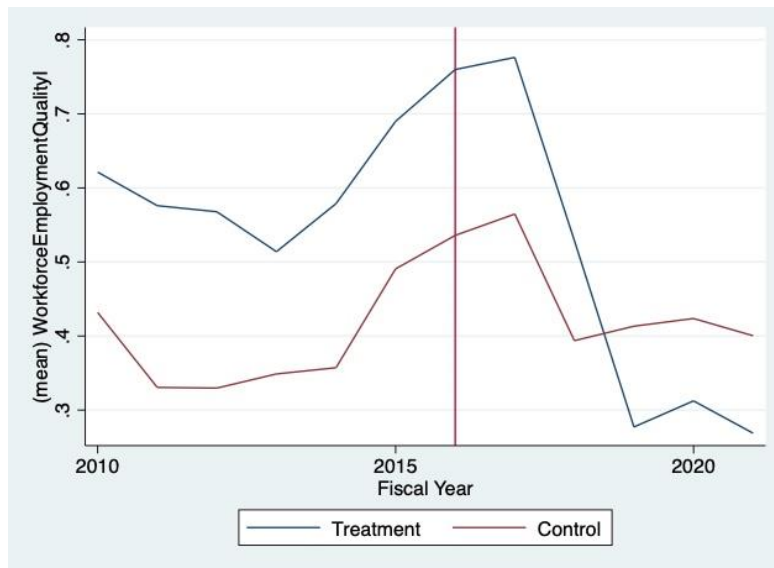


Figure (3): Workforce/ Employment Quality mean divided between the treatment and control groups

“Diversity and opportunity” and “Training and development” also demonstrate a statistically significant reduction in scores suggesting a deterioration as a result of the activist campaigns. The scores, as shown on the third and fifth line of Table (3) respectively are of -0.115 and -0.081, which are comparatively smaller in magnitude than the “Employment quality” variable. It can be speculated that the smaller value derives from the fact that these programs are less likely impacted by activist hedge funds, especially in today’s context. DE&I (Diversity, Equity, and Inclusion) programs are becoming ever important and, in some cases, mandated by law. Furthermore, a diminishing quality of training and development programs may be counterproductive as it can lead to a less prepared and efficient workforce. As a result of this, activist funds may be more hesitant to cut costs pertaining to these variables.

The “Health and safety” score in Table (3) also shows a negative coefficient, although it is not statistically significant, and is not as large as the other variables. Health and safety training programs in general are a given imperative in all companies. As a matter of fact, there is a legal threshold below which safety standards cannot decrease without the necessity of state or federal intervention. All three of these latter scores are also consistent with

Hypothesis 2 as they are shown to decrease less than “Employment quality” as a result of what they represent. Furthermore, every score discussed is also concurrent with **Hypothesis 1** as deteriorations are seen post event.

A statistically significant increase in the “Community score” is an interesting observation, which may also be explained by **Hypothesis 2**. In fact, this score represents an external perspective of the perceived impact of the company on surrounding communities, which does not include the psychological and physiological effect on employees. Because of this, it makes it less susceptible to changes resulting from activist hedge fund interventions. A positive coefficient could also be the indicator of efforts to try and boost the image of the company to these surrounding communities as an attempt to retain higher approval ratings. Moreover, the score is a potentially poor indicator as it relates more to the impact of the companies on communities in developing countries. The “Workforce score” also shows no effective significance in in the regression. The definition of this variable is similar to that of the “Community score”, such that it reflects and external evaluation of the workforce’s efficiency rather than an internal perspective. Because of this, it might also not be as receptive to changes implemented by the activist funds.

An alternative explanation for both of these latter scores can be that the data is relatively inaccurate. Figures (8) and Figure (9) show that the collapsed mean of these two variables is very stable for the treatment group and highly volatile for the control group. The reason for this can be speculated as a limitation of ESG data as a newly introduced practice, creating inaccurate results in certain ambits (This concept will be further explored in the limitations section of the thesis).

None of the variables measured are a direct analysis of the psychological or physiological health of the employees in the targeted companies. Because of this, a claim cannot be made that these are negatively affected as a result of activist campaigns and their

consequent structural alterations. However, these results provide an indication that the overall working and social conditions see a significant depreciation, which could in turn adversely impact the wellbeing of the workers. Reductions in the employment quality, as well as training, health and diversity benefits can all put a strain on the workforce resulting in such negative changes.

Robustness checks

The main issue with the regressions ran using the in-built “`diff`” function is the omission of individual firm fixed effects. The regressions are developed using a generalised coefficient which can be applied to all firms. Each individual firm, however, is characterised by nuances that define its structure, and therefore how it is affected by the activist campaign. As a result of this, there may be an inherent bias in the estimates, which can be controlled through the introduction of firm fixed effects taking into account these unobserved heterogeneities. By implementing a fixed effect term in the regression, Stata computes dummy variables for each of the companies present in the dataset.

Table (4) illustrates the regression results following this robustness check. As can be seen with all variables, coefficients remain very similar to those of the normal regression. For certain variables such as the “Diversity and opportunity” and “Training and development” scores, the coefficients actually increase in magnitude. The most notable effect, however, is the fact that the R-Squared increases considerably for all variables. In the normal multi-year regression, this value was very low, ranging from 10% to 40%. This is because using a fixed effect term allows for every single pair of observations in the dataset to generate a customised coefficient, which results in a significantly higher predictive power. These results indicate that the natural differences amongst the companies in the dataset were causing the majority of the variation in the model. Alongside the higher R-Squared, we see an increase in the

precision and statistical significance, where the confidence intervals become much more restricted and P values decrease considerably for all variables. As a matter of fact, the coefficient for “Health and safety” remains the same, but its statistical significance goes from 0.305 to 0.005.

The use of event plots was also helpful in understanding the significance of the campaign effect on the various scores. Figures (10) to (15) represent event study plots of the treatment group companies for each of the six variables (The social scores have been excluded) taken into consideration, demonstrating a definite impact on most variables. The visual representation of the variable coefficient deltas helps to identify the presence of pre and post event trends and their respective strengths. In all figures, a clear deceleration of decreasing scores can be observed, with all variables reaching a positive coefficient in the normalised year $X-1$. After the event has occurred in $X = 0$, we see various results across the six variables. For employment quality (10), there is a statistically significant decrease in the coefficients in the two years following the activist campaign taking place, indicating a very large and accelerating decline in the score. The shape of the plot also hints towards a more immediate and violent effect compared to the other variables, which further supports **Hypothesis 2**. “Diversity and opportunity” (11) and “Health and safety” (12) scores also demonstrate a reversal of the pre-trend, although this change occurs in a much milder way and spread out over more years. In the case of “Training and development” (13) we don’t see a reversal but, rather, a slowed down growth of this variable. Figures (14) and (15), respectively depicting “Community score” and “Workforce score” show that there is no real effect occurring after the activist campaign has taken place.

The slow response speed is also demonstrated in these event study plots, where the effect of the event may have an impact past $X + 3$, three years after the activist campaign has taken place. As previously explained, this is most likely due to resistance in changes and the

fact that any firm-wide change of this dimension may take various years to actually be experienced by the employees. However, Figure (10) demonstrates a more rapid effect with a large coefficient drop in $X + 1$, differently from other variables. A logical explanation to this would be that employment quality is a more generalizing variable, as it incorporates many factors of perceived quality. Thus, any changes to one of these factors, which are more immediate, can result in such sharp deteriorations of the score.

It is to be noted that these event plots do not show the “net” effect of the event itself. If we take employment quality (10) as an example, we can see that the decrease in the coefficient is accelerating after the event has taken place. However, referring back to Figure (3), both the control and treatment groups are experience a decline in this score following 2016. The net effect, in fact, is the difference in difference of these two groups rather than the simple decline in the treatment group. Therefore, these results cannot, in and of themselves, be taken as statistical significance of the campaign’s impact.

Limitations

There are two main limitations pertaining to the research in this thesis. The first limitation is given by the ESG data collected through Refinitiv. Scores generated by this platform have a low correlation to those in others such as MSCI, Sustainalytics, and Morningstar. This discrepancy between data providers exists due to a lack of standardization in these measures as it is a relatively new practice. Each company will assign a specific weight to each measure, but it will also apply different methodologies of collection and analysis, meaning results vary considerably. Furthermore, there is an underlying bias in the measurement of ESG data itself. The Environmental category presents itself as the simplest to measure as indicators are naturally quantitative such as CO₂ emissions and energy consumption levels. Social and governance data is, on the other hand, extracted in various

methods meaning the ESG rankings of the companies will be different across the platforms. This data is qualitative by nature, especially surrounding factors such as the perceived quality of a specific employment position, and therefore any attempt in turning to a quantitative statistic will be inaccurate at some level. As a result of this, the analyses and conclusions made in this thesis may not be a precise reflection of reality.

The second limitation is due to selection bias from hedge funds. Financial institutions such as hedge funds select companies to invest in based on internally standardized criteria, which observes a multitude of factors. The companies selected in the treatment group all have certain predetermined characteristics which makes them biased in and of themselves. Deteriorations in the observed variables could be a result of these companies being more responsive to structural changes as a result of their idiosyncrasies. Selection bias is an issue at the fundamental research level which cannot be controlled since the companies observed may differ from the overall population of interest. In fact, Bethel, Liebeskind and Opler (1998)¹² identified this in their paper, demonstrating that activists specifically targeted poorly performing companies as this would then translate into profitability.

Conclusion

The research in this thesis provides evidence for a correlation between an activist campaign and a decrease in social scores related to employee health. In particular, it demonstrates that the perceived quality of a job position decreases significantly compared to companies that are not targeted by activist funds. Furthermore, scores relating to strength of “Training and Development”, “Diversity and Opportunity”, and “Health and Safety” also decreased compared to companies not targeted by these funds. The results displayed in this

¹² Bethel, Jennifer E., and Julia Liebeskind. "The effects of ownership structure on corporate restructuring." *Strategic Management Journal* 14.S1 (1993): 15-31.

research are a strong indication that the cost structure transformations implemented are socially unsustainable over the long term.

There is a duality in the so-called financial benefit, where the most amount of value is squeezed out from within the company to satisfy shareholders, and it has to change. It is understandable that to uphold their fiduciary duty to the shareholders in such a short period of time, activists might engage in such practices. However, the importance of the stakeholders cannot be overlooked, especially in an environment of ever so strong sentiment about how corporations behave. Investors have to start shifting their focus on investments that create real and sustainable long-term value, resulting in a balanced benefit to both the shareholder and stakeholder. The explosion of information as a vital resource has reshaped the world, and the adaptability of companies relies on the effective interpretation of this new resource. I hope my research will help emphasize the issue at hand, but also to bring some change into the way investors make their decisions.

Further remarks and future research

The initial title for this thesis involved the analysis of Private Equity transactions and their effect on the social scores of companies. However, as I conducted my research, I realized that the undertaking of collecting this information was unfeasible in the available time. In order to understand the effect, I specifically looked at companies which had previously been public and then been taken private. This type of transaction is commonly referred to as “public-to-private” or “take private” and it involves inherent complications as it implies a private equity backed buyout with the regulatory requirements of a public takeover. When there is a selloff, the company has to then undergo a transaction known as reverse LBO, where from private it is turned back into public. These two transactions are rare in and of themselves within the private equity landscape due to the primary large nature of public

companies. Initial research consisted of using the pitchbook database to try and filter out all of these specific acquisitions and sell off in the past few years. Unfortunately, even by tweaking the filters on the database to try and accommodate for larger datasets, queries resulted in very few companies that satisfied these requirements.

Because of this, I shifted my research into activist hedge funds, which behave in a very similar way but have the academic advantage of disclosure requirements. I have also found a very interesting advantage in researching activist hedge funds as opposed to private equity funds and the respective transactions. Hedge funds in general have a particular tendency to engage in trades in a more frequent manner compared to PE funds according to Partnoy and Thomas (2007)¹³. This phenomenon occurs due to lack of confidence when investment decisions do not go according to what was projected. Because of this divergence, there is an interest on behalf of funds to focus on a more short-term growth strategy. A further indication of this tendency lies in the compensation structure of these two investor types. Traditional funds calculate performance fees on unrealized gains whereas Private Equity focuses on real term capital gains. Because of this, hedge funds may be much more inclined to take on an aggressive activist strategy that leads to significant short-term alterations in the stock of the acquired companies. The reason this is so useful is that logically it stands that hedge funds are much more aggressive in their strategies to reduce agency costs, thus resulting in more pronounced social score changes. Although research has proven hedge funds to have shorter holding periods, the effect this has on the social score takes on a speculative stance.

¹³ Partnoy, Frank, and Randall S. Thomas. "Gap filling, hedge funds, and financial innovation." (2007): 06-21.

The current literature by Mietzner and Schweizer explores the relationship between these two blockholders types and abnormal returns¹⁴. However, this does not extend to value in terms of ESG scores within the targeted companies. This research might be a logical continuation to my current question, and it would be very interesting to explore further on how changes in the “social score” can vary across different ownership structures. It would be useful to start building an effective and accurate dataset on the various Private equity transactions and how these can be translated into ESG scores.

A final comment I would like to make is on strategies implemented by funds to try and create an appearance of socially responsible investing and concealing the truth. With the most recent societal manifestations for change, in the form of the #MeToo and Black Lives Matter movements, investment firms have pushed for more ESG conscious companies. Companies such as BlackRock and Vanguard have vowed to integrate these values in their investment philosophies even through the creation of ESG ETF’s. There have been many corporate promises to invest in programs that will pose an end to discrimination, inequality and environmental degradation. In many cases, however, we have seen greenwashing, pink washing, performative allyship and many other forms of blatant discrepancies between what is promised and what is actually delivered to the stakeholders. The inherent flaw in ESG services is that they try to analyze a company’s internal values without actually knowing what is truly happening. Therefore, they might be exposed to such duplicitous promises and let it affect the way scores are compiled. These changes have only really emerged in the last 3-4 years, and it would be interesting to observe if these efforts would differ to what this research has shown. Looking at more recent years, thereby, could potentially show a different set of results.

¹⁴ Mietzner, Mark, and Denis Schweizer. "Hedge funds versus private equity funds as shareholder activists in Germany—differences in value creation." *Journal of Economics and Finance* 38.2 (2014): 181-208.

Appendix

Variable	Coefficient	SE	R ²	t	P > t	95% LL	95% UL
Social score	-0.170	0.039	0.267	-4.33	<i>0.000***</i>	-0.247	-0.093
Employment Quality	-0.221	0.044	0.099	-4.96	<i>0.000***</i>	-0.308	-0.133
Diversity and opportunity	-0.115	0.038	0.240	-2.99	<i>0.003***</i>	-0.191	-0.040
Health and safety	-0.047	0.046	0.134	-1.03	<i>0.305</i>	-0.136	0.043
Training and development	-0.081	0.040	0.305	-2.03	<i>0.043**</i>	-0.159	-0.002
Community score	0.083	0.032	0.281	2.63	<i>0.009***</i>	0.021	0.145
Workforce score	0.000	0.038	0.432	0.00	<i>0.999</i>	-0.074	0.075

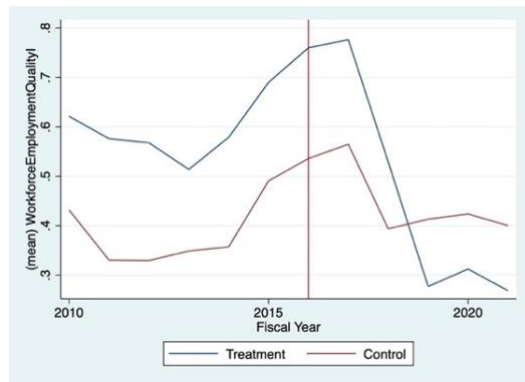
Table (3): Regression results for the multi-year regression model.

Note: *** p < 0.01; ** p < 0.05; * p < 0.1

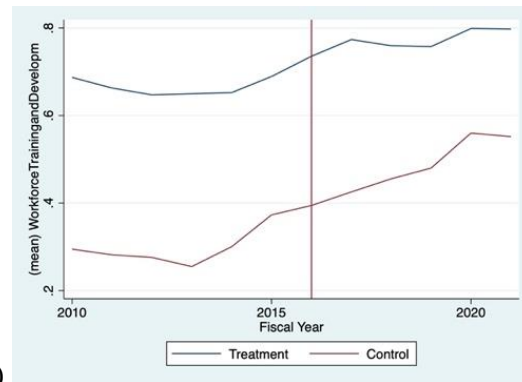
Variable	Coefficient	SE	R ²	t	P > t	95% LL	95% UL
Social score	-0.167	0.022	0.782	-7.48	0.000***	-0.211	-0.124
Employment Quality	-0.219	0.040	0.401	-5.58	0.000***	-0.296	-0.142
Diversity and opportunity	-0.128	0.024	0.751	-5.36	0.000***	-0.174	-0.081
Health and safety	-0.047	0.027	0.742	-2.83	0.005***	-0.129	0.023
Training and development	-0.101	0.026	0.752	-3.92	0.000***	-0.152	-0.051
Community score	0.058	0.018	0.798	3.15	0.002***	0.022	0.093
Workforce score	-0.009	0.021	0.852	-0.47	0.639	-0.051	0.032

Table (4): Regression results for the multi-year regression model with fixed effects.

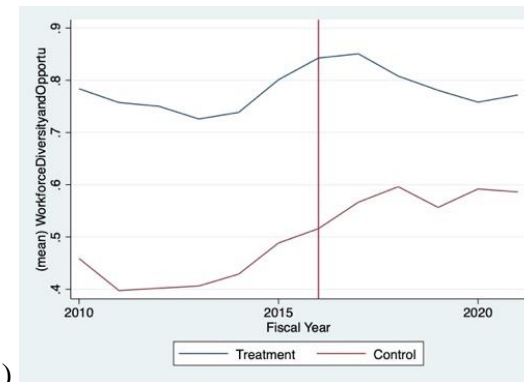
Note: *** p < 0.01; ** p < 0.05; * p < 0.1



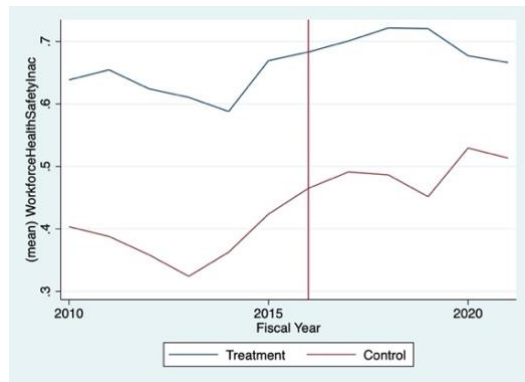
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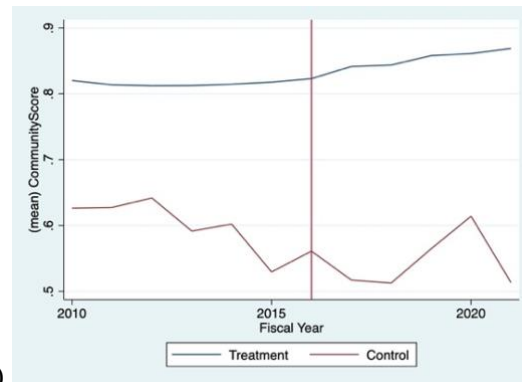
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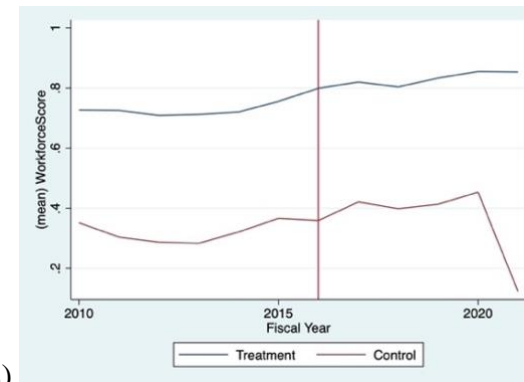
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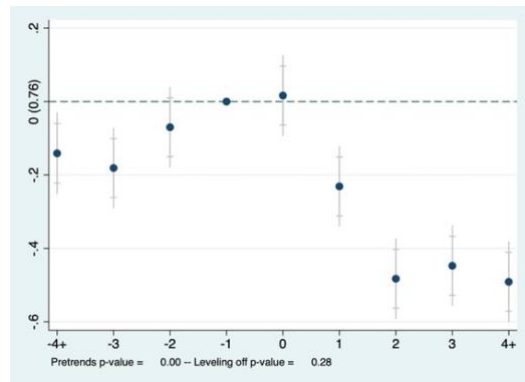


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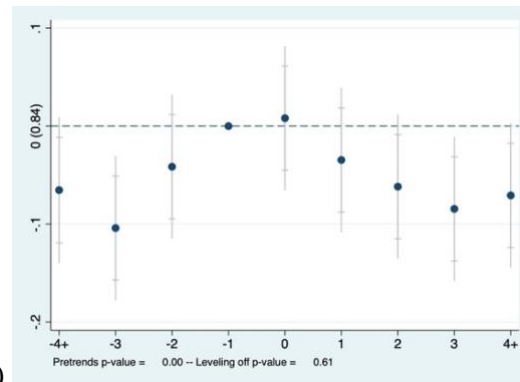


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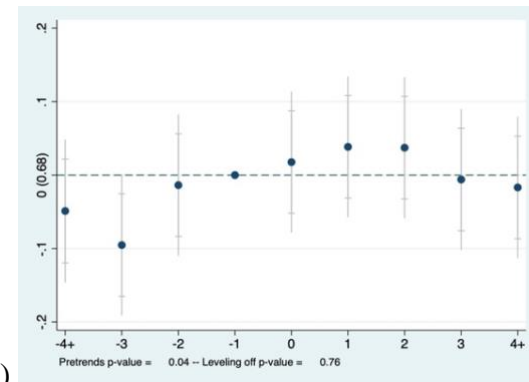
- Figure (4):** Workforce/Employment Quality mean divided between the treatment and control groups
- Figure (5):** Workforce/Training and Development mean divided between treatment and control groups
- Figure (6):** Workforce/Diversity and Opportunity mean divided between treatment and control groups
- Figure (7):** Workforce/Health and Safety mean divided between treatment and control groups
- Figure (8):** Community Score mean divided between treatment and control groups
- Figure (9):** Workforce Score mean divided between treatment and control groups



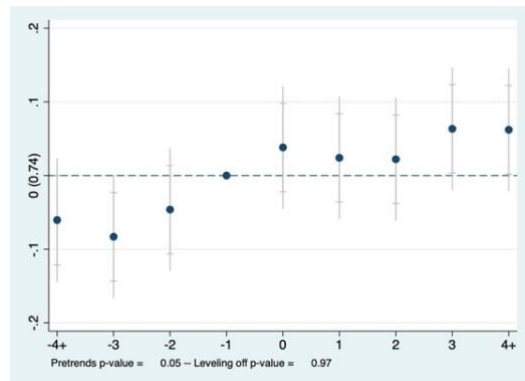
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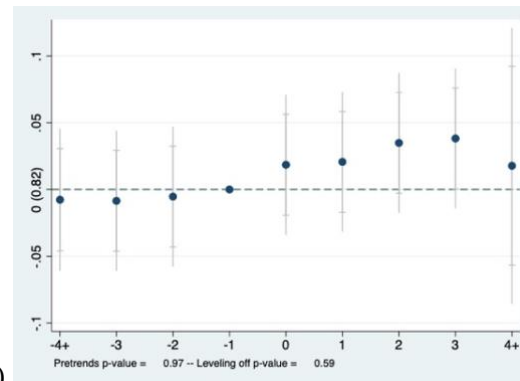
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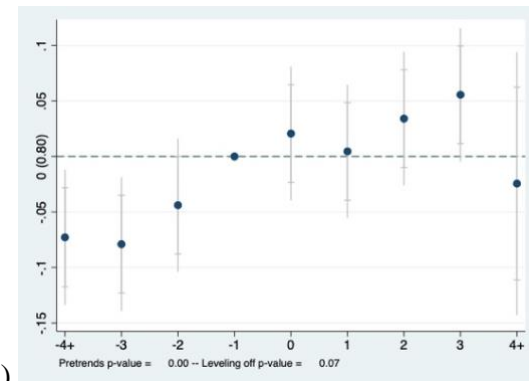
(12)



(13)



(14)



(15)

Figure (10): Event study plot for Workforce/Employment Quality

Figure (11): Event study plot for Workforce/Diversity and Opportunity

Figure (12): Event study plot for Workforce/Health and Safety

Figure (13): Event study plot for Workforce/Training and Development

Figure (14): Event study plot for Community Score

Figure (15): Event study plot for Workforce Score

Note: These are the event study plots constructed to observe the event time path of the outcome, on the Y axis, against time from the event year on the X axis. The event time where X = 0 represents 2016, the event year.

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