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Taking Stock of Work-Family Initiatives: How Announcements of "Family'Friendly" Human Resource Decisions Affect Shareholder Value

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TAKING STOCK OF WORK-FAMILY INITIATIVES

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ABSTRACT

Sampling 231 work-family initiatives announced in the *Wall Street Journal*, this study examines the relationship between work-family human resource decisions and share price reaction. Consistent with past research, the results suggest that firm announcements of work-family initiatives positively affect shareholder return. In addition, we find that timing influences the relationship in three scenarios. First, pioneers of work-family initiatives generate larger share price reactions than later adopters of the same initiative. Second, the first work-family announcement a firm releases influences share price reaction more than successive work-family announcements by the same firm. Third, share price reactions to work-family human resource decisions following gender discrimination suits or lack thereof vary based on the time period examined. The results and implications of the research are discussed.

Introduction

Work-family programs have long been considered innovative; however, newer arguments suggest they should also be considered a best practice (Perry-Smith & Blum, 2001). Work-family programs may provide the infrastructure necessary to attract the best human resources. Researchers show that work-family programs increase firms' ability to attract and retain employees (Carmichael, 1984; Grover & Crooker, 1995; Thompson, Beauvais, & Carter, 1997). Further, scholars find that work-family programs allow employees to work more efficiently (Gannon, Norlan, & Robeson, 1983; Rothausen, Gonzalez, Clarke, & O'Dell, 1998). Consistent with this logic, researchers also find that work-family programs positively affect perceived firm performance (Perry-Smith & Blum, 2001).

This study adds to our understanding of the relationship between work-family initiatives and firm-level outcomes in several ways¹. First, we add to a limited literature investigating the relationship between work-family programs and capital markets (Arthur, in press). Specifically, we examine share price reactions to firm announcements of work-family programs. Second, we introduce timing as an important variable to consider in modeling the relationship between human resource initiatives and firm performance. In doing so, we apply the first-mover advantage (FMA) model, a model typically applied to the product market, to the human resource market. The combination of a focus on work-family programs, the FMA model, and the consideration of timing allows us to introduce previously untested hypotheses.

As a starting point, we discuss the historical evolution and definition of workfamily programs. Following, we examine the extant literature suggesting a relationship

¹In this study, we use the terminology of firm announcements, initiatives, and decisions interchangeably.

between human resource initiatives and share price reaction. Next, we discuss why we expect a relationship between work-family initiatives and share price. Further, we explore investor reactions, across organizations and within organizations, to initial work-family announcements versus subsequent work-family announcements. We conclude by examining the difference between investors' reactions to work-family announcements by firms that have experienced negative gender-related press with those firms that have not experienced negative gender-related press.

Historical Overview

Work-family scholars trace the development of work-family programs to World War II (Glass & Estes, 1997). At that time, men were called to war, and women were required to work in war-supporting manufacturing industries (Glass & Estes, 1997). The government, recognizing the need to ease the tension to women from the dual-responsibilities of family and work, opened temporary childcare centers (Glass & Estes, 1997). National firms did not begin to replicate government instituted onsite childcare centers until the early 1970s. Stride Rite Corporation adopted the first widely publicized onsite childcare center in 1971. Throughout the 1970s and 1980s several derivatives of onsite childcare centers were developed. Childcare programs such as off-site consortiums, emergency/sick care centers, and referral services provided a lower cost alternative to onsite childcare centers (Friedman, 1990). In the late 1980s, work-family programs evolved to include elder care services and family-counseling services (Friedman, 1990).

In the 1990s, firms began to recognize time flexibility as a way to alleviate work and family conflict. In doing so, programs such as flextime, compressed and shorter

workweeks, job sharing, and telecommuting were developed. Restructuring the way people work is, perhaps, the most expensive work-family human resource adaptation. Work-family programs tend to fall into three categories: dependent care, family stress programs, and flexible work arrangements. This paper defines work-family programs as any human resource program designed to alleviate work and family conflict.

Literature Review

Using the event study methodology, researchers have explored the relationship between human resource practices and share price reactions (see Table 1). Scholars have examined the negative impact on share price of human resource actions such as strikes (Dinardo & Hallock, 2002) and layoffs (Datta & Iskandar-Datta, 1996, Dinardo & Hallock, 2002; Farber & Hallock, 1999; Hallock, 1998). The results suggest that share price decreases on the day of the announcement.

Other scholars have focused on share price reactions to announcements of human resource program awards (Filbeck, 2001; Hannon & Milkovich, 1996; Wright, Ferris, Hiller & Kroll, 1995; Lauterbach & Vu, 1992). These studies suggest that reputation creates wealth and moderates the announcement-share price relationship. Several awards have been examined including "20 Best Places to Work" (Filbeck, 2001), Department of Labor Awards for Affirmative Action (Wright, Ferris, Hiller & Kroll, 1995), and "Best Manager Award" (Lauterbach & Vu, 1992). The results have been mixed at best. Hannon & Milkovich (1996) conducted, perhaps, the most comprehensive study of firm awards examining "Best for Blacks", "Most Preferred", "100 Best to Work for", "Best for Working Mothers", "Best for Women", and "Best for Black Engineers". The "Best

for Working Mothers" award produced the only significant and positive share price reaction.

Aside from general human resource awards, Abowd, Milkovich, & Hannon (1990) examined more specific human resource practices or "general human resource systems changes" of which work-family policies were a component. The results did not show a consistent pattern, however, the authors suggested future research should focus on specific types of human resource decisions. Arthur (2003), using institutional theory, focused exclusively on work-family policies. Her research examined pre- and post-institutionalization share price reactions to work-family announcements. In addition, several firm characteristics were investigated as potential moderators of the relationship. In this paper, we focus solely on work-family policies. Our study, using an efficiency-based perspective, focuses on work-family programs and specifically examines the timing of a work-family announcement.

Hypotheses

Human resource theory suggests that the benefits of a work-family program will exceed the costs. Within the price-theoretic model, the underlying processes are complex. A firm announces a work-family human resource decision to investors. By doing so, scholars argue that the firm reveals intentions to provide the infrastructure necessary for the firm to become more efficient in three different ways. First, the announcement of an innovative work-family policy allows organizations to manipulate their organizational reputation and create "intangible wealth" (Fombrun, 1996). This intangible wealth allows a firm to attract an inflated pool of applicants (Carmichael, 1984). A larger applicant pool from which to select workers, assuming selection processes are reliable, should garner

more qualified employees (Hannon & Milkovich, 1996). Better workers should yield higher productivity and profits, and offer sustained competitive advantage (Hannon & Milkovich, 1996). Noting this sequence of events, investors should influence firm stock price to reflect the increased firm value.

Second, the organization will be better able to retain talented employees (Grover & Crooker, 1995; Thompson, Beauvais, & Carter, 1997). Grover and Crooker (1995) found employees who had access to work-family programs had greater organizational attachment and lower intentions to quit their jobs, regardless of the extent to which the employees benefit from the policy. Lower turnover rates reduce employers' training costs. Retaining talented employees allows firms to maintain the human resources necessary for a competitive advantage. Potential investors who recognize work-family human resource decisions will generate lower turnover rates and greater firm commitment, hence lower operating costs, should react to increase firm value.

Third, current employees can more effectively balance work and family life. Initial studies suggested work-family policies reduced work-family conflict thus generating less employee absenteeism, higher levels of employee satisfaction, and potentially more productive employees (Gannon, Norland, & Robeson, 1983). Follow-up research suggested while users of the programs could better balance work and family, non-users often felt frustration or resentment toward unneeded and inaccessible child care centers (Goff, Mount, & Jamison, 1990; Kossek & Nichol, 1992). An investigation of the potential "backlash" of work-family policies led researchers to conclude that offering assistance to employees in need symbolizes concern for employees, and positively affects employee behaviors (Grover & Crooker, 1995). Further, current research suggests the

benefits of work-family programs to employees exceed the potential costs of any backlash (Rothausen, Gonzalez, Clarke, & O'Dell, 1998). Indeed, if employees can better balance work and family concerns, reduced levels of work-family conflict should produce more satisfied workers, less absenteeism, and more productive employees (Rothausen, Gonzalez, Clarke, & O'Dell, 1998). All three human resource processes allow an organization to garner a more productive workforce. Assuming investors perceive that the gains in efficiency will exceed the costs of the program, the expected profitability and value of the organization should increase. Hence, we hypothesize that firm announcements of work-family human resource decisions will positively affect shareholder return.

We extend the human resource literature by introducing timing, a variable commonly considered in the strategic management literature. Strategy theorists' consider the importance of timing in the process of capturing product markets (e.g. Lieberman & Montgomery, 1998). Specifically, the FMA framework has provided the theoretical underpinnings to numerous studies on early market entry and market share (e.g. Brown & Lattin, 1994). First-movers or "pioneers" have the potential to acquire superior resources and capabilities, thus competitive advantage (Lieberman & Montgomery, 1998). Strategy theorists find timing moderates the relationship between managerial decisions and firm performance in product markets.

Timing should play a role in the human resource market as well. Similar to the product market, the human resource market requires strategy and innovation to secure talented employees (Lieberman & Montgomery, 1998). A human resource "pioneer" is the first firm to gain wide spread publicity for announcing a new human resource policy.

As a first mover or a pioneer, firms can capitalize on their competitive advantage (Lieberman & Montgomery, 1998). Introducing an innovative human resource program allows firms to increase their applicant pool (Carmichael, 1984). If employee productivity is normally distributed, firms will attract more employees of various productivity levels. As long as selection processes are reliable, one would expect a firm with innovative human resource programs to garner more superior employees (Hannon & Milkovich, 1996). As the relationship builds between the employee and the firm, switching costs may increase. The pioneering firms may also retain the high-quality employees. Additionally, the organizational attachment and satisfaction gained from a work-family policy may secure the retention of new employees and facilitate increases in firm efficiency.

For a firm to achieve a sustainable competitive advantage, it must attain a value-creating strategy that cannot be replicated by its current or future competitors (Barney, 1991). Being a first-mover could be crucial in providing a strategic advantage in responding to an environmental opportunity (Barney, 1991). Both an enhanced reputation of the firm, as well as an increased applicant interest from top candidates may ensue. Given the unique historical condition of a first-mover reputation, it may be difficult to imitate (Becker & Gerhart, 1996). A time-dependent resource can only be exploited at a particular time in history; therefore, other firms may not able to duplicate the resource (Barney, 1991). We assume that the "best" human resources cannot be easily replicated. Although other organizations are able to implement work-family initiatives, they may not generate a comparable response as those initiated by the first-mover. Hence, only pioneering firms can exploit the resource to secure a sustained competitive advantage.

We suggest that across organizations, announcements by pioneers of a work-family human resource decision will have a larger impact on shareholder return than successive announcements of the same policy by other organizations.

Moreover, within an organization, the first announcement of a work-family human resource decision may have a larger impact on shareholder return than successive work-family decisions by the same firm. The first work-family announcement favorably affects the reputation of the organization. Similarly, the initial firm commitment to work-family may increase a firm's ability to attract, retain, and increase the productivity of employees. However, the reputational gain as well as the increases in attraction, retention, and efficiency may have a decreasing marginal return. Each work-family initiative announced following the first, may add value, however it may be incremental. Since the positive reputation has already been accounted for in the stock price, the supplemental announcements may offer only minor incentive for investors to respond. Hence, we propose that the first commitment a firm reveals to work-family concerns will have a larger impact on share price than subsequent work-family initiatives.

As good reputations guide applicants towards certain firms, bad reputations push applicants away and lead them to choose labor market competitors (Hannon & Milkovich, 1996). Reputation affects applicants' attitudes concerning prospective employers (Belt & Paolillo, 1982). A firm that has been involved in a gender discrimination suit will likely suffer from an ill-reputed image, thus, be disadvantaged in the human resource market (Fombrun & Shanley, 1990). Furthermore, as work-family policies may increase employee satisfaction, it is logical that a discriminatory climate

may decrease employee satisfaction. This, in turn, may result in greater employee absenteeism and turnover, and likely decreased or stagnant productivity.

When a firm announces a work-family initiative, the announcement may be received and interpreted differently by various stakeholders in the market. Possibly, the stakeholders interpreting the announcement may do so with skepticism and attribute the initiative as an act of desperation on part of the firm, hence losing the potential benefits (Abowd, Milkovich, & Hannon, 1990). The gain in reputation may be marginal, and the work-family policy may not garner the internal benefit of satisfaction that allows a firm to increase retention and efficiency. Although the announcement should improve its reputation, it may not elevate it above comparable firms without negative gender-related press. As a result, we propose that announcements of work-family human resource decisions following negative gender-related human resource press attention will have a smaller impact on shareholder return than those announced following no gender-related negative press

METHODS

The data were collected for firms listed on *Fortune* magazine's *Fortune 500* list.

Firms that appeared on the *Fortune 500* list at any point in the analysis were examined for all years of the study, 1971 to 1996. The starting point of 1971 was chosen to encompass one of the first widely heralded onsite childcare centers established at Stride Rite Corporation. Due to a change in the style of reporting articles in the *Wall Street Journal Index* changed the reporting style from a detailed synopsis of *Wall Street Journal* articles to a keyword description of the articles. Therefore, the description of an article about a work-

family human resource initiative would be more broadly classified as a Human Resource Policy article post 1996. Accounting data and stock market performance measures were collected from the Center for Research in Security Prices (CRSP) at the University of Chicago, and Compustat provided the data for firm size. Human resource policy and gender discrimination suit data were collected from the *Wall Street Journal Index* issued annually. The *Wall Street Journal Index* provides a short description of articles published daily in the *Wall Street Journal* Newspaper.

All announcements pertaining to a work-family human resource decision were recorded and coded. Over the studied time period, 231 work-family policies were announced in the *Wall Street Journal*. To ensure reliability, two researchers independently categorized work-family announcements. The interrater agreement was 88.8%. Forced rater agreement was used to code the remaining disagreed upon announcements.

Event Study

An event study, a method typically applied in finance, was used for this analysis. The fundamental principle of the event study is that new information introduced to the market will garner immediate reaction from investors. In this study, the event was defined as a firm announcement of a work-family human resource decision posted in the *Wall Street Journal*. Incremental information, given by the firm's announcement, allows investors to adjust their former outlook regarding a firm's potential (Patell, 1976). To the extent that market participants expect the announcement to increase future cash flows of the firm or reduce the risk of the firm's stock, immediate action on part of the investors

will reflect the anticipated change. Therefore, the announcement of a work-family human resource decision may increase the future appraisal of the firm.

Although event studies use many different techniques, they involve four general steps (see Brown and Warner, 1985). The steps are (1) identify the event; (2) model the normal (expected) total shareholder returns; (3) estimate the abnormal (unexpected) total shareholder returns; and (4) analyze summary measures for abnormal returns.

Initially, the event date of interest was identified and the normal or expected returns were modeled. The estimation was accomplished by statistically modeling the relation between a firm's shareholder return over a given time period (1 year or 255 trading days) with the shareholder return for the same time period arising from an equally weighted diversified portfolio of common stocks. The 1-year period was modeled with an end date of 30 days prior to the event date. A value weighted diversified portfolio of stock using the American Stock Exchange (AMEX), the New York Stock Exchange (NYSE), and the Nasdaq Stock Market (NASDAQ) provided a benchmark. Estimating the relationship between each firm and a diversified portfolio of stocks essentially controls for any external shocks or trends in the stock market. Equation (1) below was used to estimate the relationship between a given firm's return (R_{it}) and the market portfolio (R_{mt}) where (i) represents the firm and (t) represents time in trading days.

$$(1) \quad R_{it} = \alpha_i + \beta_i R_{mt} + \eta_{it}$$

After estimating the normal or expected shareholder return, equation (2) was used to compute the abnormal or excess returns (ER) as a result of a work-family

announcement. Excess returns were calculated as the difference between the holding period shareholder return and its expected value, given the return on the market.

(2)
$$ER_{it} = R_{it} - (\hat{\alpha}_i - \hat{\beta}_i R_{mt})$$

 $\hat{\beta}$ represents the estimated relationship between the market return and the firm return from Equation (1). Excess returns were calculated for various "windows" or days surrounding the event date or work-family human resource decision. The typical window lengths are one-day (the day of the event) and three-day (one day before the event, the event day itself, and one day following the event) windows. In addition to excess returns for each firm, several other statistics were calculated. The average excess returns (AER) were reported. The average excess returns are the sum of the excess returns divided by the number of events (N). The average excess return for day (t) was calculated as:

$$(3) \quad AER_{t} = \sum_{i=1}^{N} ER_{it} / N$$

Further, cumulative average excess returns (CAER) were computed. The cumulative average excess returns are the sum of the average excess returns over the days in the event window. The cumulative average excess returns for the relevant event group were computed as:

$$(4) \quad CAER_I = \sum_{t=t_1}^{t_2} AER_t$$

Let t₁ and t₂ represent the first day and last day of the event window, respectively.

While researchers have examined window lengths exceeding a sixty-day time span, we present a maximum window length of 3-days and a minimum of 1-day. Scholars debate the appropriate length of an event study window noting a key concern to be the likelihood of confounding events existing with longer event windows (McWilliams & Siegel, 1997). If this is the case, the true relationship between the event and shareholder return may be clouded by other information released regarding the firm. To address this concern, we specifically present three sets of results. The first set (n=231) includes all work-family human resource decisions with confounding announcements included. In the second set (n=176), we eliminate any work-family announcement if another firm announcement was issued on the same day. In the third set (n=130), if another firm announcement was released the day before, the day of, or the day after the human resource decision, the work-family announcement is excluded. The last data set provides the cleanest examination of the work-family policy and shareholder return relationship.

A standard parametric significance test is presented. The test statistic is for the null hypothesis that the excess return or cumulative average excess return is equal to zero. Second, t-tests to measure significant differences for two samples of unequal variance are presented.

RESULTS

Because the sample is *Fortune 500* firms, the firms included are necessarily large. Descriptive statistics are presented in Table 2. The average number of employees is 104,500. Firms' mean share price is almost \$55 with 276,305,000 shares outstanding. Additionally, due to their size, these firms are considered newsworthy and more

information is released about them. Approximately 44% of the firms in the sample had other announcements reported within the 3-day window of analysis.

Short window lengths for the event study have been recommended by researchers in order to minimize other factors influencing the relationship being analyzed (McWilliams & Siegel, 1997). Within short windows, however, confounding events may still occur. A confounding event is any firm announcement of other information regarding the firm within the event window. In this analysis, we examine a 3-day window (the day before, the day of, and the day after the event) and a 1-day window (the day of the event). Examining the day before and the day after the event allows for inclusion of possible leaks of the information or lag-time in investors' reactions, respectively, while minimizing the potential for confounding events.

Our main research hypothesis predicts announcements of work-family human resource decisions will positively affect shareholder return. As detailed in Table 3, the results indicate a significant increase in shareholder return on the day of the event. Effect sizes range from .16% to .32%, depending on the inclusion of confounding events. With the full sample size of 231, shareholder return increases .16% (p=.038). Eliminating those announcements with confounding events on the day of the announcement (n=176), shareholder return increases .17% with significant a hypothesis (p=.078) test. The cleanest set of results, without announcements with confounding events in the 3-day window (n=130), exhibits a significant share price increase of .32% (p=.007) on the day of the announcement. The 3-day event study window exhibits a significant increase of .32% (p=.064). These results suggest our main research hypothesis is supported.

Due to the increased clarity of the results when firm announcements with confounding events are excluded, the following discussion will only address those announcements without confounding disclosures in the 3-day window. For brevity, we limit the discussion of share price reaction to the 1-day window (the day of the event) and the 3-day window (the day before, the day of, and the day after the event).

In Table 4, we examine the effects of a first mover advantage by analyzing the impact on shareholder return for pioneering firms versus the shareholder return of successor firms with the same policy announcements. As detailed, pioneering firms achieve a shareholder increase of .94% (p=.004) on the day of the announcement while successor firms garner an increase of .19% (p=.082). Both coefficients are significant. Furthermore, a standard t-test of two sample means with unequal variances show that the magnitude of share price reactions are statistically significantly different. The 3-day window is significant for pioneers only. The results support the first mover advantage hypothesis. The results suggest that initial work-family decisions across firms garner more advantageous shareholder gains than successor firms introducing the same policy on the day of the announcement.

Our subsequent hypothesis proposes that the difference in share price reaction of an initial work-family announcement within a firm will be greater than successive announcements by the same firm. As detailed in Table 5, work-family decisions are divided into two categories. The first category represents first work-family decisions for firms that had multiple announcements in the study (n=24). The second category represents successive work-family decisions. That is, an announcement that followed an initial work family decision in firms with multiple work-family announcements. To best

examine our hypothesis, we compare first work-family decisions in firms with multiple announcements (n=24) and successive announcements by those same firms (n=47).

On the day of the announcement, first work-family decisions within firms exhibit significant shareholder gain of .75% (p=.009), whereas non-first work-family decisions within firms do not exhibit a significant increase. Furthermore, statistically the values are significantly different. The 3-day window analysis exhibits a significant increase of .98% (p=.035) for first firm announcements. The corresponding increase for non-first firm announcements is not significant. The effect sizes are significantly different. As illustrated in Table 5, the analyses for both the 1-day and the 3-day windows support this hypothesis.

As a final point, we examine the share price reaction to a work-family decision following a negative gender-related press release. Referring to Table 6, on the day of the announcement, both sets of announcements exhibit positive and significant share price reactions. The firms that did not have any negative gender-related press reported in the sample preceding their announcement (n=82) exhibited a gain of .36%. The increase is significant (p=.024). For those firms with a negative gender-related press release prior to their work-family announcement (n=47), the increase is .26%. This gain is significant (p=.075). While the raw effect sizes are significant, the values are not statistically different from one another. Only one firm had a discrimination suit within the year prior to its work-family announcement. Due to influences on the modeling period (255 trading days preceding the announcement), this event was eliminated (n=129).

The 3-day window analysis is not significant at .22% (p=.187) for those firms without negative gender-related press releases in the years prior to their work-family

announcement. Firms with negative gender-related press releases in the past did exhibit a significant increase (.48%) in share price (p=.096). The effect sizes support the hypothesis on the day of the announcement; however, the hypothesis is not supported for the 3-day window. Hence, the results presented in Table 6 suggest mixed support at best for the final hypothesis.

CONCLUSION

Our analyses suggest that work-family human resource decisions positively affect firm value. By measuring share price reactions, work-family initiatives are shown to impact the bottom-line. Investors, acknowledging the potential benefits firms may achieve through work-family initiatives, react to increase the stock price. Furthermore, our results suggest that the timing of the announcement influences share price reaction. Timing analyses revealed that on the day of the announcement and the 3-day window, share price reactions were greater for pioneering firms than successor firms announcing the same type of work-family policy. Furthermore, within firms, the first work-family initiative reaped larger increases in share price than successive announcements on the day of the announcement.

The additional increase in share price achieved by pioneering firms over later announcers of the same policy is consistent with FMA theory. First-movers gained .75% more than later announcers of the same policy. This differential represents, on average, an additional gain of approximately 122 million dollars to pioneering firms on the day of the announcement. Numerous studies in strategic management literature have tested the FMA framework. For example, Chaney & Devinney (1992) reported a significant average daily return of .26% on the day of a new product announcement. We find, on the

day of the announcement, work-family human resource announcements have a larger effect on share price; however, over the long run, share price reactions to first-movers of products are more resilient than reactions to human resource initiatives. Future research is necessary to advance our understanding of the relationship between timing and other types of human resource initiatives.

The first work-family initiative announced by a firm increased the stock price more than successive initiatives from the same firm. This may be due to a decreasing marginal return of the announcement. The primary gain in share price resulting from the announcement of a work-family initiative may be attributed to enhanced firm reputation. With that heightened reputation comes many benefits such as a larger applicant pool, greater productivity as a result of better employees, lower absenteeism, and lower turnover. All of these factors increase the profitability of a firm and help to sustain a competitive advantage. The reputational gain of a firm has limits, however. The next initiative may reap benefits, but marginally less than the first initiative. Therefore, successive firm announcements will not exhibit the same impact on the stock as the primary announcement. More studies, though, would provide insight into this relationship to determine whether investors are primarily responding to reputational gains or anticipated increased human resource efficiency.

As a complementary analysis, we investigate the relationship between share price reaction to work-family initiatives and prior discrimination suits. We find that share price reaction is greater for firms that have not experienced negative gender-related press on the day of the event. However, the 3-day window suggests that share price is more resilient for those firms that have experienced a discrimination suit. Our results suggest

mixed support for the idea that investors recognize firm initiatives to "right a wrong", and do so with skepticism. It may be the case that investors have a negative view of the firm prior to the announcement and respond favorably to an attempt to improve human resource practices. Hersch (1990) found EEO discrimination lawsuits had a negative effect on share price of -.49%. Our study suggests that beyond the initial negative share price reactions to lawsuits, future penalties or benefits may remain. In doing so, prior studies of share price reactions to discrimination suits may have inaccurately estimated the true penalty.

By examining firm value in response to work-family initiatives, this study emphasizes the importance of human resource decisions. Furthermore, it illustrates the importance of timing in such decisions. First-movers of work-family initiatives, whether within or across firms, yield an advantage over successive human resource decisions. We suggest that, with respect to timing, analyses of the human resource market can draw on product market analyses. Timing may influence firms' abilities to capitalize on inimitable human resources. Whether analyzing human resource initiatives or new product introductions, timing may be primary component of creating a sustained competitive advantage.

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TABLE 1
Prior Event Study Analyses of Human Resource Announcements

Study	Years Studied	Type of HR Event Announcement	Share-Price Reaction
Arthur, in press	1971-1996	Work-family initiatives; pre- and post-legitimation	Positive return on the day of the announcement, with post-legitimation resulting in the greatest gain (.36%, .38%)
Dinardo & Hallock, 2002	1925-1937	Strikes	Negative effects on monthly industry shareholder return (-1.2%)
Filbeck, 2001	1997	"20 Better Places to Work" in <i>Mother Jones</i>	Negative shareholder return within a three-day window of the announcement (46%)
Farber & Hallock, 1999	1970-1997	Layoff announcements	Negative shareholder return on the day of the announcement (38%)
Hallock, 1998	1989-1995	Layoff announcements	Negative shareholder return on the day of the announcement (4%)
Datta & Iskandar-Datta, 1996	1989-1991	Layoff announcements	Negative shareholder return on the day of the announcement (8%)
Hannon & Milkovich, 1996	1982-1989	Announcements of the following: Best for Blacks Most Preferred 100 Best to Work For Best for Working Mothers Best for Women Best for Black Engineers	None of the reputation announcements significantly affected shareholder return on the day or month of the announcement except "Best for Working Mothers", which had a positive effect (2.7%)
Wright, Ferris, Hiller, & Kroll, 1995	1986-1992	Department of Labor Awards for Affirmative Action Programs, and Damage awards from settlements of discrimination lawsuits	Department of Labor Awards positively affected shareholder return on the day of the announcement (.47%), and Damage awards negatively affected shareholder return on the day of the announcement (37%)
Lauterbach & Vu, 1992	1975-1984	"Best Manager Award" for CEOs in Financial World	Monthly valuation was positive in the pre-award period, and with corrections for size and risk, normal returns in the post-award period; no effect on the day of the announcement (01%)
Abowd, Milkovich, & Hannon, 1990	1980 & 1987	Announcements of general HR decisions, compensation, staffing, relocation, shutdown, and safety	No consistent pattern with regard to shareholder return on the day of the announcement (.39%, .22%)

TABLE 2

Descriptive Statistics
(standard deviations in parentheses; n=231)

Variable	Mean
1. AER _{t=-1}	-0.0001 (0.2000)
2. $AER_{t=0}$	0.0016 (0.0913)
3. $AER_{t=+1}$	-0.0004 (0.0717)
4. CAER _{t=-1,+1}	0.0011 (0.1532)
5. Number of Employees	104500 (127245)
6. Share Price (in dollars)	54.72 (33.63)
7. Outstanding Shares (in millions)	276.31 (309.37)
8. Firm Value (in millions)	16267.1 (20533.7)
9. Confounding $Event_{t=0}$	0.2414 (.04288)
10. Confounding Event _{t=-1,+1}	0.4353 (.4969)

TABLE 3 ${\bf Average\ Excess\ Returns\ of\ Work-Family\ Human\ Resource\ Decisions}^a$

	All Work-Family HR Decisions with Confounding Events from t-1 to t+1 (n=231)	All Work-Family HR Decisions without Confounding Events on t=0 (n=176)	All Work-Family HR Decisions without Confounding Events from t-1 to t+1 (n=130)
$AER_{t=0}$	0.16**	0.17*	0.32***
	(0.09)	(0.12)	(0.13)
$CAER_{t=-1,+1}$	0.11	0.02	0.32*
	(0.15)	(0.14)	(0.21)

^a All coefficients are expressed as percentages. * p < .10** p < .05*** p < .01

TABLE 4 Average Excess Returns of Pioneering and Follower Work-Family Human Resource Decisions Across Firms^a

	Pioneering Work-Family	Follower Work-Family HR	Second-Order t-tests
	HR Decisions Across Firms	Decisions Across Firms	of Differencing
	(n=19)	(n=111)	Coefficients
$AER_{t=0}$	0.94***	0.19*	0.75**
	(0.36)	(0.14)	(0.36)
$CAER_{t=\text{-}1,\text{+}1}$	0.88*	0.22	0.66*
	(0.55)	(0.23)	(0.51)

^a All coefficients are expressed as percentages.

^{*} *p* < .10 ** *p* < .05 *** *p* < .01

TABLE 5 Average Excess Returns of First and Successor Work-Family Human Resource Decisions Within ${\rm Firms}^{\rm a}$

	First Work-Family HR Decisions Within Firms With Successors (n=24)	Successor Work-Family HR Decisions Within Firms (n=47)	Second-Order t-tests of Differencing Coefficients
$AER_{t=0}$	0.75***	0.04	0.71**
	(0.32)	(0.08)	(0.39)
$CAER_{t=-1,+1}$	0.98^{**}	0.27	0.72
,	(0.54)	(0.23)	(0.66)

^a All coefficients are expressed as percentages.

^{*} p < .10 ** p < .05 *** p < .01

TABLE 6 Average Excess Returns of Work-Family Human Resource Decisions Following the Absence or Presence of Negative Gender-Related Press in the Past^a

	Work-Family HR Decisions with No Negative Gender- Related Press in Past (n=82)	Work-Family HR Decisions Following Negative Gender- Related Press in Past (n=47)	Second-Order t-tests of Differencing Coefficients
$AER_{t=0}$	0.36**	0.26*	0.09
	(0.18)	(0.18)	(0.27)
$CAER_{t=-1,+1}$	0.22	0.48 [*]	-0.25
	(0.25)	(0.37)	(0.27)

^a All coefficients are expressed as percentages.

^{*} p < .10 ** p < .05 *** p < .01