



## Family friendly firms: does it pay to care?

Dianna C. Preece<sup>a,\*</sup>, Greg Filbeck<sup>b</sup>

<sup>a</sup>College of Business and Public Administration, University of Louisville, Louisville, KY 40292, USA

<sup>b</sup>College of Business Administration, University of Toledo, Toledo, OH 43606-3390, USA

---

### Abstract

In this paper we examine the returns to a portfolio of 29 firms that are perceived as family-oriented. The sample is based on firms awarded the best 100 companies for working mothers in *Working Mother Magazine's* annual survey. There is much anecdotal evidence supporting the benefits of these programs, but little evidence relating family-oriented policies to shareholder wealth. We find, based on raw returns, that family-friendly firms do not earn statistically significant excess returns relative to a matched sample or to the S & P 500. Based on risk-adjusted returns, the family-friendly portfolio outperforms the market, but underperforms a matched sample portfolio. © 1999 Elsevier Science Inc. All rights reserved.

*JEL classification:* G10; G11

*Keywords:* Family friendly firms; Portfolio returns; Risk-adjusted returns

---

### 1. Introduction

Investors continuously look for profitable investment opportunities. Numerous studies have considered the factors that make a company worthy of investment. In this paper, the issue of “family-friendly” policies and the returns to investors who invest in family-friendly firms are examined.

Family-friendly issues have become increasingly important to corporate America. In 1996, the White House sponsored the first-ever conference on corporate citizenship. Companies were showcased that, according to President Clinton, “do the right thing” by their

---

\* Corresponding author. Tel.: +1-852-4831; fax: +1-502-7557.

*E-mail address:* dcpree01@gwise.louisville.edu (D.C. Preece)

employees. These companies offer on-site child care, flexible hours, and paternity leave. Companies like Corning and Johnson & Johnson were represented. Vice-President Al Gore convened a second conference in 1996 to discuss how work affects family and vice versa. Again, the leading firms were represented (Moskowitz, 1996).

Firms instituting family-oriented policies have been on the rise since the middle to late 1980s. Johnson & Johnson, one of the most widely recognized leaders offering these benefits, launched most of its programs in 1989 (Shalowitz, 1992). The issue has garnered such attention that many companies are now calling the programs work/life benefits to avoid alienating single and childless workers. Family-oriented benefits are expected to expand well into the twenty-first century. For example, in a survey of 463 companies by the International Foundation of Employee Benefits, 34% of firms expected to offer flextime by 2000 and 68% expected to offer either on-site child-care or child care subsidies (Luciano, 1992).

Some firms are serious about family-oriented issues, whereas others are accused of having policies on the books but a corporate culture that discourages their use. According to a congressional study entitled "The Changing Workforce," work/family issues are approached strategically as a means to improve recruitment, retention, and productivity by leading-edge companies (Washington Report, 1992). There is a core group of companies that are consistently cited as examples of firms committed to a family-friendly work environment. These firms do live up to their press. It is a sample of these firms that are examined in this paper.

The stock market returns of a sample of 29 family-friendly firms relative to a matched sample and to a market portfolio are examined. Annual and multi-year holding period returns are calculated. These returns are compared to the matched firms and to the S & P 500. Both raw and risk-adjusted returns are considered.

## 2. Literature review

There are two streams of literature that are relevant to this study: the literature on returns in the stock market and the literature on family-friendly firms.

### 2.1. Stock market returns

In a stream of literature spawned by the 1982 book by Thomas J. Peters and Robert H. Waterman, *In Search of Excellence: Lessons From America's Best Run Corporations*, the returns to excellent firms were investigated. Peters and Waterman (1982) examined firms considered to be innovative and excellent by financial analysts, academics, executives, and consultants. Companies were screened based on several factors including continuous innovation, size and financial performance. Financial performance was measured by growth rates in equity and assets, profit margin, return on equity, return on assets, and on market-to-book-value ratios.

Based on the Peters and Waterman firms, Clayman (1987) and Kolodny, Laurence, and Ghosh (1989) considered returns from investing in these excellent firms. Kolodny, Laurence, and Ghosh presented evidence that the Peters and Waterman firms did not outperform the market or a control sample. Clayman found that the excellent firms did not outperform a

portfolio of “bad” firms, firms not considered excellent based on the Peters and Waterman criteria. In a 1994 follow-up study, Clayman (1994) found conflicting evidence. Over the period 1988 through 1992, the “good” companies outperformed the market whereas the “bad” firms under-performed the market. Over the same period, however, the financial ratios of the “good” firms deteriorated whereas the ratios of the “bad” firms improved.

Hamilton, Jo, and Statman (1993) investigated the investment performance of socially-responsible mutual funds. Both positive and negative factors were used in building the sample of funds. An example of a positive factor would be a firm with environmentally sound policies whereas a negative factor would include a company that produces weapons. The socially-responsible funds were measured against a sample of traditional mutual funds. Hamilton, Jo, and Statman provided evidence that socially-responsible mutual funds do not earn statistically significant excess returns and that their performance was not statistically different from the performance of conventional funds.

Gorman, Filbeck, and Preece (1997) studied the returns from investing in a portfolio of the companies on *Fortune's* most-admired list. They compared the returns of the “most-admired” firms (the firms at the top of the *Fortune* list) to the “least-admired” firms (the firms on the bottom of the *Fortune* list) and to the S & P 500. They considered both annual returns and multi-year holding periods and found that generally the “most-admired” portfolio outperforms both the market and the “least-admired” firms on the *Fortune* list. In 21 out of 22 years between 1973 and 1994, the “most-admired” firms outperformed the market and the “least admired” portfolio, based on raw returns. Based on risk-adjusted returns, the “most-admired” firms outperformed the market and the “least-admired” firms in the majority of years as well.

Finally, Allen and Kask (1997) examined the financial and market performance of socially-responsible firms. They defined social responsibility as a concern for the environment, community, women and minorities, and nuclear power. The sample included firms that have strengths and no weaknesses in the eight criteria defined by the Domini Social Index. The index screens Fortune 500 firms on a variety of positive and negative criteria and rates them based on strengths and weaknesses. Allen and Kask explored two regression models: one to assess the effect of social responsibility on profitability and the second to assess the effect of social responsibility on stock price performance. Their results were surprising in that they found a positive effect on profits and a negative effect on stock price performance. Allen and Kask offered possible explanations for the conflicting results between the two models. They posit that either the result was sample specific or that it reflected investor confusion or a lack of information.

## 2.2. Family-friendly firms

There is a growing literature on firms that have family-oriented policies. Since 1990, articles have appeared in publications such as the *Wall Street Journal (WSJ)*, *Fortune*, *Money Magazine*, and *Working Mother*, in trade publications ranging from *Business Insurance* to *Modern Office Technology*, and in academic publications such as *Employee Benefits Journal* and *Compensation and Benefits Review* (Conference Board, 1994). However, research in this area is largely anecdotal. Little rigorous research has been done on the costs and benefits of

providing these benefits to workers. Survey research on worker feelings about the policies has been the primary source of data regarding the benefits.

Why are so many firms adopting family-oriented policies? There are many benefits that accrue to the firm such as reduced absenteeism and enhanced recruitment. Also, improved technology makes many of these policies easier to implement. Certain types of work may now be performed at home with the advantage of computer technology. Finally, firms are being forced by the marketplace to acknowledge and deal with family issues. According to the *WSJ*, many “generation X” workers expect to lead more balanced lives than their parents and thus are judging firms’ attitudes towards work/family balance as part of their job decision-making process (Shellenbarger, 1991). According to the New York based Families and Work Institute, retention is the reason most often given for implementing work-life assistance policies (Families and Work Institute Web Site, 1998). Overall, 68% of the companies surveyed by the Families and Work Institute find it difficult to fill vacancies for skilled workers and 40% find it difficult to fill hourly and entry-level positions. Firms are responding in an effort to attract and retain high quality employees, in an age of low unemployment and significant competition for the most qualified workers. The issue has become so important that the Council of Institutional Investors, a group of 94 pension funds that control \$1 trillion in stocks between them, discussed how to encourage good workplace practices at their 1997 annual meeting. In addition, according to an Ernst & Young Center for Business Innovation study, investor decisions are driven 35 percent by non-financial factors and the “ability to attract and retain” talented employees ranks fifth among 39 factors that investors use in picking stocks (Shellenbarger, 1997).

Work-family research shows that child care or elder care problems lead to increased absenteeism, turnover, stress in the work place, and work disruptions. As a result, there is reduced productivity and morale problems in the workplace. According to the Families and Work Institute, several unpublished corporate surveys indicated that child care responsibilities interfered with work for about half of the women and one-third of the men surveyed. Corporate surveys also revealed that between 33–45% of employees with adult dependents work less effectively because of concerns about their relatives (Shellenbarger, 1993).

There is a debate about the effectiveness, given the cost, of child care centers provided by companies. On-site child care facilities are generally the most expensive of the family-friendly benefits. The cost of these can be exorbitant. For example, according to Woolsey (1992), a child care center built by Johnson & Johnson cost \$5 million and a joint venture center built by All-State and other firms cost \$1.6 million. Anecdotal surveys of workers regarding on-site or near-site centers indicated less absenteeism and tardiness. Rigorous research in this area has generally failed to substantiate this claim. For example, using companies’ administrative data, as opposed to worker opinions, a 1989 study by Berkely Planning Associates found that only two out of five studies indicated absenteeism is actually reduced. In fact, studies attested that the benefits of child care facilities accrue more in the recruitment and retention areas than in reduced absenteeism and tardiness (Shellenbarger, 1993). On-site child care facilities have positive benefits in addition to reduced absenteeism and enhanced recruitment and retention. According to the *WSJ*, corporate child care centers yielded favorable publicity. In a study of a child care center that opened in Monterey Park, California, media coverage of the event led to 27 newspaper and magazine articles, two

evening news spots and a radio program (Shellenbarger, 1993). According to Moskowitz (1996), 75% of the 1996 *Working Mother* award winners had at least one on-site or near-site child care center.

Other family-friendly benefits are less expensive, and also yield positive results. Flexible work schedules, work-place seminars, job sharing programs, and child and elder care referral services are inexpensive and may yield significant benefits in improved morale, reduced absenteeism and tardiness, and lower turnover. A study by the Families and Work Institute showed that an average parental leave of four and one-half months costs the firm approximately 32% of an employee's annual salary, whereas replacing the employee costs between 75–150% of the employee's salary. The study also found that offering a generous family-leave package for maternity leave reduced the percentage of mothers who fail to return to work from 24% to 12% (Scott, 1993).

Flextime, according to several studies, is inexpensive and provides substantial benefits to firms. Companies indicate that flextime reduces tardiness and absenteeism and costs nothing in administration and training expenses. One corporate example of the success of these policies is First Tennessee National. Their workers make heavy use of flextime, flexplace, and employee-involvement programs. The corporation shifted its focus in 1993, with the arrival of new CEO Ralph Horn, to fostering an environment that motivated and supported employees. Mr. Horn argued that satisfied employees and satisfied customers are inextricably tied. He talks at length about these policies to securities analysts. Prior to Mr. Horn's taking over First Tennessee, the company's shares traded below the industry P/E; following his plan's implementation, they have traded above the industry average (Shellenbarger, 1997).

One of the most important corporate awards to arise in recent years is the annual *Working Mother's* "100 Best Companies for Working Mothers." The *Working Mother* contest began in 1986 when the magazine awarded 35 companies with "best company" status. Since 1986 the number of companies has grown along with the number of entrants vying for the award. The number of participants reached and exceeded 1,000 in 1993 and continues to grow (Fierman, 1994).

*Working Mother* bases its award on five factors. They rate firms on pay, opportunities for women to advance, child care assistance and other family-friendly benefits. In 1996, work-place flexibility became a separate category. Specific policies such as on-site or near-site child care facilities, flexible work schedules, job sharing, reduced work options, compressed work weeks, paid paternity leave, adoption benefits, leave to care for the elderly, and others, are examples of family-oriented policies according to *Working Mother*. The sample in this study is based on firms that made the *Working Mother* list in either the majority of the years between 1986 to 1996 (at least six out of 11 years) or in all five years between 1992 and 1996.

The firms that make the *Working Mother* top 100 receive a tremendous amount of publicity, and it is cited as one of the key reasons many firms submit an application (Shellenbarger, 1993). This has led some applicants to fear making the list and then subsequently being dropped. Sprint faced negative publicity after making the list. Many Sprint workers expressed disbelief that they were working for the same firm that had won the award. This was reported in several publications including the *WSJ*. Sprint was later dropped from the *Working Mother* survey. In a subsequent *Fortune* article on less family-friendly

firms, a Sprint executive, discussing being dropped from the list, said “we have to run a business” (Fierman, 1994).

In sum, there is significant interest in these firms in both the political environment and in the financial marketplace. We intend to contribute to the existing research by providing evidence relevant to the stockholders, or perspective stockholders, of these firms. The research question addressed in this study is whether investors in family-oriented firms earn returns less than, equal to or greater than the market and a matched sample of companies.

### 3. Hypothesis

The general hypothesis regarding the performance of family-friendly firms relative to traditional firms is that the stock market returns of the two portfolios will be different. There are two alternative outcomes. First, the family-friendly portfolio could outperform the non-family friendly portfolio and the S & P 500. This scenario would support the theory that workers in these firms are more productive, more efficient, and more focused on their jobs. The benefits of these policies, such as reduced turnover and attracting highly qualified workers, would outweigh the costs of the programs. Also, investors may support these firms by increasing the demand for their goods and/or by buying the firm’s stock. Both would lead to an improved bottom line and potentially higher returns in the stock market.

Second, the returns of the family-friendly portfolio could underperform the market or a matched sample portfolio. This implies that the many costs of implementing these programs would overwhelm the benefits. A time lag most likely occurs between implementation of the programs and the necessary front-end costs and the ultimate benefits that accrue to firms from increased productivity and enhanced recruiting. Thus, firms committed to creating a family-oriented environment for their employees may see profits, and possibly stock price, suffer, at least in the short run.

Finally, the null hypothesis is that the raw and risk-adjusted returns of the family-friendly portfolio are equal to those of the market or a matched sample of non-family oriented companies. In this case, the costs and benefits of family friendliness would offset each other or investors are not specifically seeking or avoiding family-oriented companies for their portfolios. This possibility is most consistent with finance theory, which states that only risk factors affect return. Non-risk factors such as family-friendliness should not have an impact on raw or risk-adjusted returns.

### 4. Data and methodology

The sample firms are collected from the *Working Mother* survey. *Working Mother* has published the survey each year since 1986. We include all firms that are publicly traded and have appeared in the survey in at least six of the 11 years of between 1986 to 1996, or each of the five years between 1992 to 1996. Several firms that were ranked by *Working Mother* are privately held, and thus return data does not exist. Based on these criteria, we have a sample of 29 firms.

Monthly closing prices and dividends were collected for both samples from Compustat PC Plus for the years 1987 through 1996. Firms were matched on three criteria. First, the matched sample firms must never have appeared on *Working Mother's* list. Firms were then matched based on industry classification and on market capitalization. Table 1 includes a list of the family-friendly firms, the matched sample firms and the detailed matching criteria for each matched pair. Total returns were calculated (both dividends and capital gains). Annual returns were calculated using the geometric mean of the monthly returns of the entire portfolio. The monthly returns are equally weighted. Ten annual holding-period returns and seven multi-year holding period returns were calculated. Six, five-year averages were calculated, and one 10-year average over the entire sample period 1987 through 1996. We calculated raw returns and three risk-adjusted measures. Compound annual family-friendly portfolio returns, matched sample returns and market raw returns are presented in Table 2 for the single year and multi-year holding periods. A paired difference test was used to calculate a Student's t-test statistic test for differences in mean sub-sample returns.

Sharpe (1946, 1994) developed, and later clarified the use of, a risk-adjusted measure that measures return per unit of total risk. It is an appropriate measure of risk-adjusted return when the investor is not well diversified and is exposed to company specific risk. It is known as the reward-to-variability ratio and is calculated:

$$\text{Sharpe Index} = d_1/s_{d1} \times \sqrt{12} \text{ where}$$

$d_1$  = mean monthly difference between the portfolio or market return and the T-bill return, calculated over the appropriate holding period (12, 60, or 120 months), and

$s_{d1}$  = the sample standard deviation of the monthly return differences.

Table 3 presents the Sharpe index results.

In addition, the Treynor index, developed by Treynor in 1965, measures return per unit of systematic risk. It is an appropriate measure of risk-adjusted return if the investor is well diversified and is not exposed to company-specific risk. It is calculated:

$$\text{Treynor Index} = d_1/\beta \text{ where:}$$

$d_1$  = the mean monthly difference between the portfolio or market return and the T-bill return, calculated over the appropriate holding period (12, 60, or 120 months), and

$\beta$  = portfolio beta, or market beta ( $\beta_m = 1$ )

Betas are calculated based on monthly returns using a simple regression of the market returns and the portfolio returns. They are included in Table 4 along with the Treynor index results.

In a 1968 paper, Jensen developed a third risk-adjusted measure called Jensen's Alpha. Alpha indicates whether a portfolio exhibits above-average risk-adjusted returns. A positive (negative) alpha indicates that the portfolio consists of undervalued (overvalued) securities and is calculated by regressing the portfolio's monthly risk premium on the market's monthly risk premium. The regression equation appears below:

$$R_p = \alpha + \beta(R_b) + e_i \text{ where:}$$

$R_p$  = excess return to the family-friendly portfolio

$\alpha_1$  = Jensen's alpha

$\beta$  = beta coefficient

$R_b$  = excess return on the benchmark portfolio (family-friendly or market portfolio), and

$e_i$  = error term

Table 5 presents the Jensen's Alpha results.

Table 1  
Family-friendly firms matched sample

Family friendly firm	Market value (millions)	SIC code	Matched sample firm	Market value (millions)	SIC code	Justification
Aetna, Inc.	17085	6321	General RE Corp	16599	6331	SIC two digit match, CAP match
American Express	39270	6199	Banc One	32637	6021	CAP Match, FM SIC match (Financials)
Apple Computer	2215	3571	Tandem	3596	3571	SIC match, CAP match
AT&T	59798	4813	SBC Communications	53992	4813	SIC match, CAP match
Avon	9585	2844	Clorox	7225	2842	SIC three digit match, cap match
Barnett Banks Inc	10096	6022	Fifth Third Bank	10037	6022	SIC match, CAP match
Ben & Jerry's	93	2024	TCBY	164	2024	SIC match, CAP match
Homemade Ice Cream						
CIGNA	14307	6331	Loews Corp	12434	6331	SIC match, CAP match
Citicorp	62071	6021	BankAmerica	52730	6021	SIC match, CAP closest (Nationsbank better, but already on list)
Corning, Inc.	14268	3220	Armstrong World Industries	3008	3089	FORTUNE, FM SIC match, closest CAP match available
Dow Chemical	22164	2821	Monsanto	29165	2800	SIC two-digit match, CAP match
Du Pont (E.I.) De Nemours	75762	2820	American Home Products	53030	2834	SIC two-digit match, CAP (closest)
Eastman Kodak	22043	3861	Fuji Photo Film	21679	3861	SIC match, CAP match
Gannett	14091	2711	Tribune Inc.	6498	2711	SIC match, closest CAP
Genentech	7227	2834	Rhone-Poulenc Rorer	12938	2834	SIC match, CAP match
Glaxo Wellcome PLC	74752	2834	SmithKline Beechham, PLC	52211	2834	SIC match, CAP match Both based out of England
General Motors	46618	3711	Chrysler	25083	3711	SIC match, closest domestic CAP
Hewlett-Packard Co.	71073	3570	Compaq	42941	3571	SIC match, CAP closest
IBM	105026	3570	Intel	150388	3674	CAP match, FM SIC Match (Business Equipment)
Johnson and Johnson	82766	2834	Pfizer	75002	2834	SIC match, CAP match
Lincoln National Company	7328	6311	Sunamerica	7227	6311	SIC match, CAP match
Merck & Co.	125640	2834	Bristol Myers Squibb	78302	2834	SIC match, CAP match (closest available)
MMM	39968	2670	Kimberly Clark	28359	2621	SIC two-digit match, closest CAP

(continued on next page)



Table 1  
(continued)

Family friendly firm	Market value (millions)	SIC code	Matched sample firm	Market value (millions)	SIC code	Justification
Motorola	47849	3663	Sony	39115	3651	SIC two-digit match, CAP match
Nationsbank	51794	6021	Morgan Stanley, Dean Witter, and Co.	50731	6211	CAP match, FM SIC match (Financials)
Pitney Bowes	10950	3579	Seagate Technology	10100	3572	SIC three-digit match, CAP match
Procter and Gamble	103308	2840	Philip Morris	109273	2111	CAP match, FM article (Drugs)
UNUM	6328	6321	Conseco, Inc.	7479	6321	SIC match, CAP match
Xerox Corp.	26621	3861	Emerson Electric	26537	3823	SIC two digit match, FM SIC match (Business Equipment) CAP match

## 5. Empirical analysis

Table 2 presents the annual raw rates of return for the family-friendly portfolio, the matched sample portfolio and the market index. Multi-year holding period returns are also included in Table 2. Although the family-friendly firms outpaced the S & P 500 index in seven out of 10 years, there are no statistically significant differences between the annual returns of the two portfolios. When comparing the family-friendly portfolio to the more appropriate matched sample portfolio, the differences in returns are significantly ( $p < .05$ ) different from zero in only one year. In 1989, the matched sample returned 44.87% whereas the family-friendly portfolio returned 30.73% to shareholders. The family-friendly portfolio had higher returns than the matched sample portfolio in only two out of 10 years.

For all six, five-year holding periods and for the overall 10-year holding period, the family-friendly portfolio had higher returns than the S & P 500 index but had lower returns than the matched sample portfolio. The family-friendly portfolio outperformed the S & P 500, statistically at the 5% level, in one multi-year holding period between 1991 and 1995. The returns were 22.63% and 16.57%, respectively. In one five-year period, 1987 through 1991, and in the overall 10 year period, 1987 through 1996, the family-friendly portfolio statistically underperformed the matched sample portfolio. The matched sample's return of 23.60% was significantly ( $p < .01$ ) different than the 17.14% return for the family-friendly stocks over the total 10-year holding period. The matched sample also significantly ( $p < .05$ ) outperformed the family-friendly portfolio in the period 1987 through 1991, 23.29% compared to 15.92%, respectively. Overall, based on seventeen return comparisons between the family-friendly portfolio and the matched sample, there is statistical significance in only three periods. In the seventeen return comparisons between the family-friendly portfolio and the market portfolio, the difference in returns is significant in only one period.

Table 3 presents the Sharpe index results. There was an even split between the family-

Table 2

Family-friendly investment strategy comparison of compound returns 1987–1996

Year	Family-Friendly (percent)	Matched Sample (percent)	T-test comparison of means (Friendly versus Matched Sample)	Market Index (percent)	T-test comparison of means (Friendly versus Market)
1987	10.65	19.27	-1.48	5.23	0.97
1988	9.62	18.90	-1.68	16.81	-1.73
1989	30.73	44.87	-2.16 <sup>a</sup>	1.49	-0.13
1990	-9.05	-3.76	-0.91	-3.17	-0.57
1991	45.12	44.07	0.03	30.55	1.70
1992	17.74	20.48	-0.30	7.67	1.50
1993	10.89	15.29	-0.60	9.99	0.17
1994	4.62	3.94	0.11	1.31	1.10
1995	39.93	46.19	-0.75	37.43	0.48
1996	21.65	38.37	-1.99	24.49	-0.40
Multiple year holding periods					
1987–91	15.92	23.29	-2.61 <sup>a</sup>	15.36	0.38
1988–92	17.37	23.54	-1.96	15.89	0.60
1989–93	17.64	22.78	-1.58	14.50	1.10
1990–94	12.51	14.89	-0.79	8.68	1.38
1991–95	22.63	24.91	-0.71	16.57	2.34 <sup>a</sup>
1992–96	18.38	23.90	-1.60	15.47	1.17
1987–96	17.14	23.60	-3.21 <sup>b</sup>	15.41	1.03
Summary table of raw return results					
Type of comparison	Friendly versus matched sample—superior returns		Friendly versus market index—superior returns		
Single year	Friendly—2		Friendly—7		
Multiple year	Matched sample—8		Market index—3		
	Friendly—0		Friendly—7		
	Matched sample—7		Market index—0		

<sup>a</sup> Statistically different ( $p < .05$ ).<sup>b</sup> Statistically different ( $p < .01$ ).

friendly portfolio and the S & P 500. Each portfolio had the higher index in five out of 10 individual years. However, the family-friendly portfolio had the higher index in five out of seven multi-year holding periods. Conversely, the Sharpe index of the family-friendly firms underperforms the matched sample firms in eight out of 10 years and in six out of seven multi-year holding periods.

Table 4 presents the Treynor index results. Based on return per unit of systematic risk, the family-friendly returns are higher than the S & P 500 in seven of the 10 individual years and in all seven multi-year holding periods. In contrast, the family-friendly sample has a higher index in only two out of 10 years and in zero out of seven multi-year holding periods.

Differences between the Sharpe and Treynor risk-adjusted measures for comparisons of the family-friendly portfolio and the S & P 500 portfolio are attributable to the level of diversification within each portfolio. Specifically, the Sharpe index uses total risk in the calculation of risk-adjusted returns. Since the family-friendly portfolio is obviously less

Table 3  
Family friendly investment strategy sharpe index measures

Year	Family friendly	Matched sample	Market index
1987	0.311	0.535	0.143
1988	0.322	0.921	0.978
1989	1.441	1.949	1.643
1990	-0.586	-0.333	-0.503
1991	1.981	1.638	1.432
1992	1.422	1.465	0.568
1993	1.204	1.416	1.120
1994	0.113	0.057	-0.193
1995	4.423	7.032	5.147
1996	1.320	2.447	1.447
Multiple year holding periods			
1987–91	0.500	0.764	0.518
1988–92	0.695	0.939	0.715
1989–93	0.770	0.965	0.693
1990–94	0.546	0.642	0.358
1991–95	1.533	1.518	1.172
1992–96	1.400	1.782	1.203
1987–96	0.728	1.013	0.699
Summary table results for sharpe index measure			
Type of comparison	Friendly versus matched sample—superior returns	Friendly versus market index—superior returns	
Single year	Friendly—2	Friendly—5	
Multiple year	Matched sample—8	Market index—5	
	Friendly—1	Friendly—5	
	Matched sample—6	Market index—2	

diversified than the S & P 500, it is exposed to a relatively higher level of total risk. The Treynor index only considers market risk, eliminating the effects of company-specific risk that would be present in the family-friendly portfolio. Thus, other things held constant, a well diversified portfolio (such as the S & P 500) has an advantage over a less diversified portfolio (such as the family-friendly firms) when using the Sharpe index. If an investor held only the family-friendly portfolio, the Sharpe measure of risk-adjusted returns would be most appropriate. If the family-friendly portfolio is one of many held by the investor, the Treynor index is the best measure of risk-adjusted return.

Table 5 presents the Jensen's Alpha results. Two different measures of alpha are used. First, Jensen's Alphas are calculated for the family-friendly portfolio against the matched sample. Consistent with the raw return data, negative alphas are observed from 1991 forward, except for 1996. In multi-year holding periods, Jensen's Alpha values are negative for each five-year holding period until the 1991 through 1995 period. Only for the five-year holding period from 1987 through 1991 do we observe a statistically significant alpha value, and it is negative. The negative coefficient implies that the family-friendly portfolio was overpriced compared to the matched sample benchmark during 1987 through 1991 time period. The family-friendly portfolio recorded positive Jensen's Alpha values against the S & P 500 in

Table 4  
Family friendly investment strategy treynor index measures

Year	Family friendly	Matched sample	Market index	Beta value (family friendly)	Beta value (matched sample)
1987	9.680	17.809	4.380	1.075	0.992
1988	3.429	12.015	9.920	1.053	0.799
1989	18.304	30.650	20.300	1.086	0.833
1990	-11.382	-8.445	-9.240	1.255	0.930
1991	33.820	33.489	22.610	0.995	0.796
1992	13.798	15.851	4.210	0.971	0.591
1993	10.509	11.761	6.870	0.734	0.466
1994	1.231	0.670	-2.030	1.033	0.842
1995	29.599	33.223	26.880	0.973	0.656
1996	18.118	27.936	17.177	0.814	1.809
Multiple year holding periods					
1987–91	9.652	17.104	9.594	1.103	0.921
1988–92	10.042	16.712	9.560	1.120	0.851
1989–93	10.843	16.661	8.050	1.113	0.840
1990–94	7.475	10.665	4.484	1.117	0.845
1991–95	17.168	18.999	11.708	0.988	0.762
1992–96	14.694	17.888	10.621	0.897	0.714
1987–96	11.198	13.456	10.108	1.064	0.886
Summary table of treynor index measures					
Type of comparison	Friendly versus matched sample—superior returns		Friendly versus market index—superior returns		
Single year	Friendly—2		Friendly—7		
Multiple year	Matched sample—8		Market index—3		
	Friendly—0		Friendly—7		
	Matched sample—7		Market index—0		

seven of the 10 one-year holding periods and in all but one multi-year holding period (a zero alpha was observed for 1985 through 1989). However, only in the five-year period from 1991 through 1995 was a statistically significant alpha value recorded against the S & P 500. Jensen's Alpha values are consistent with the raw return data, indicating that the family-friendly firms do not significantly outperform their benchmarks during the time studied.

Our results indicate that the raw returns of the family-friendly firms are not significantly different from the returns of a matched sample or of a market portfolio. These findings suggest that the market does not price family-friendly characteristics. Given that finance theory suggests returns reflect risk characteristics, this finding is not surprising.

## 6. Summary and conclusions

Our results are consistent with both the results presented in Allen and Kask (1997) and in Hamilton, Jo, and Statman (1993). We find that investors do not necessarily “do well by doing good.” Investors supporting family-oriented firms will not earn lower returns accord-

Table 5  
Family friendly investment strategy Jensen's alpha measures

Year	Alpha (family friendly against matched sample)	Alpha (family friendly against market index)
1987	-.61	.47
1988	-.50	-.56
1989	-.47	-.18
1990	-.54	-.22
1991	.59	.93
1992	.34	.78
1993	.18	.22
1994	.06	.28
1995	.54	.21
1996	-.66	.06
Multiple year holding periods		
1987–91	-.43*	.00
1988–92	-.25	.04
1989–93	-.16	.17
1990–94	-.06	.28
1991–95	.21	.45*
1992–96	.04	.30
1987–96	-.30	.10
Summary table results for Jensen's alpha		
Type of comparison	Friendly versus matched sample—superior returns	Friendly versus market index—superior returns
Single year	Friendly—5	Friendly—7
	Matched sample—5	Market index—3
Multiple year	Friendly—2	Friendly—7
	Matched sample—6	Market index—0

\* Statistically different ( $p < .05$ ).

\*\* Statistically different ( $p < .01$ ).

ing to these results but will not outperform the market or a similar, non-family-friendly portfolio.

The overall finding that the returns are not significantly different could also suggest that the costs of family-friendliness offset the benefits. Many firms have only recently implemented these benefits. There can be significant up-front costs, depending on the type of benefits offered to workers. The payoff from many of these benefits, such as reduced turnover and improved recruiting, may slowly overcome the costs of implementation.

Additional research should focus on both the types of programs a firm has in place along with the amount of time the firm has been implementing family-oriented programs. The Families and Work Institute has classified 188 firms into four stages beginning with firms who have very limit work/family programs to firms who have a holistic approach to the issues and a commitment to change the company culture (Solomon, 1994). These stages could be used to assess the timing of costs and benefits accruing to firms instituting family-friendly programs. If firms are in the fourth stage of development (the most advanced stage), one could expect that the payoff from implementing these programs would have

caught up with or overcome the costs. In the earliest stages of development, the costs of implementation might still be quite significant, depending on the types of benefits put in place. This could help explain return differences between portfolios, if the firms were differentiated by stage of development. This differentiation could lead to an increased understanding of the returns to stockholders.

## References

- Allen, G. C., & Kask, S. B. (1997). Socially responsible firms: Financial and market performance. *J Bus Econ Perspect*, 23(2), 86–96.
- Clayman, M. (1994). Excellence revisited. *Finan Anal J*, 51, 61–65.
- Clayman, M. (1987). In search of excellence—the investor’s viewpoint. *Finan Anal J*, 43, 54–63.
- Fierman, J. (1994). Are companies less family friendly? *Fortune*, 129:64–67.
- Gorman, R., Filbeck, G. & Preece, D. (1997). Fortune’s most admired firms: An investor’s perspective. *Stud Econ Finan*, 18(1), 74–93.
- Families Work Institute Web Site. (1998). [www.workandfamilies.org](http://www.workandfamilies.org).
- Conference Board. (1994). Firms share duties in work/family assistance. Survey by the Conference Board. *Employee Benefit Plan Rev*, 49, 38–40.
- Kolodny, R., Laurence, M. & Ghosh, A. (1989). In search of excellence for whom? *J Portf Manag*, 15(3), 56–60.
- Luciano, L. (1992). The good news about employee benefits. *Money*, 21(June), 90–112.
- Moskowitz, M. (1996). 100 best companies for working mothers. *Working Mother Magazine*, 19, 10–70.
- Peters, T., & Waterman, R. (1982). *In Search of Excellence: Lessons from America’s Best Run Companies*. New York: Harper & Row.
- Scott, M. (1993). Downsizing firms place extra value on work and family programs. *Employee Benefit Plan Rev*, 48, 28–31.
- Shalowitz, D. (1992). Work/family benefits need not be costly to succeed. *Business Insurance*, 26, 10–11.
- Shellenbarger, S. (1993). Lessons from the workplace: how corporate policies and attitudes lag behind workers’ changing needs. *Hum Res Manag*, 31(3), 157–169.
- Shellenbarger, S. (1991). More job seekers put family needs first. *Wall Street J*, B1.
- Shellenbarger, S. (1993). Data gap: do family-support programs help the bottom line? The research is inconclusive. *Wall Street J*, June 21, R6.
- Shellenbarger, S. (1993). Concerns fight to be called best for moms. *Wall Street J*, September 14, B1.
- Shellenbarger, S. (1993). Best list for working mothers shows new faces: Midwest firms, oil giants. *Wall Street J*, September 16, A8.
- Shellenbarger, S. (1997). Investors seem attracted to firms with happy employees. *Wall Street J*, March 19, B1.
- Solomon, C. (1994). Work/family is a delicate balance. *Personnel J*, 82, 72–87.
- Washington Report. (1992). Traditional workplace practices are changing. *Office* 116, 22.
- Woolsey, C. (1992). Continued growth seen in work-family benefits. *Business Insurance* 26, 13–14.