

# “Organizational Diversity, Profits and Returns in U.S. Firms”

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## Organizational Diversity, Profits and Returns in U.S. Firms

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### Abstract

We investigate the financial performance of firms that cultivate diversity in the workforce and develop relationships with other diverse stakeholders, using a wide variety of accounting, financial and market-based metrics. We find that firms with exemplary diversity records have a performance advantage over a matched set of peer firms, particularly in accounting-based profitability measures, but these advantages do not directly translate into gains for shareholders. The risk-adjusted excess returns of the diversity award-winners are virtually identical to the matching firms, and insignificantly different from zero. Our findings are consistent with the idea that diversity is a strategic initiative that provides firms with a competitive advantage, rather than just another aspect of firms' commitment to corporate social responsibility.

**Key words:** Diversity, corporate social responsibility, portfolio performance.

**JEL Classification:** G30.

### 1. Introduction

In recent years, customers, employees, suppliers, community groups, governments and shareholders have encouraged firms to undertake additional investments in diversity. Proponents of diversity claim that cultivating diversity in the workforce and developing relationships with a diverse group of stakeholders provide firms with a significant competitive advantage (Singh and Point, 2004). There is, however, little evidence that corporate diversity initiatives lead to superior financial results. We investigate the financial performance of two portfolios of firms recognized for having exemplary diversity practices by *Fortune* and *DiversityInc* magazines in 2004. We conduct one of the most comprehensive investigations into diversity and financial performance to date, comparing each portfolio to matched samples of peer firms using a wide variety of accounting-based profit measures, finance-based value metrics, and market-based measures of risk and return.

Our results support a large body of theoretical evidence that suggests cultivating a diverse workforce provides tangible benefits to the firm. We find that firms recognized for their diversity initiatives have a performance advantage over a set of matching firms during the years immediately preceding publication of the *DiversityInc* and *Fortune* lists, particularly in terms of profitability and value metrics. The companies honored on these lists have larger market capitalization, assets and sales than the matching firms. Accordingly, these firms have superior performance based on metrics directly correlated with firm size, such as net operating profit after tax and market value-added. Over most of the years we study, both sets of diversity-award winners also have higher profit margins, return on assets, return on equity and economic value-added. These advantages do not directly translate into benefits to shareholders, however. Over the five years preceding the year in which these firms responded to survey instruments that contributed to their receiving recognition for diversity (1998-2002, a period which spans two bull market years and three bear market years), the risk-adjusted excess returns of the diversity and matching portfolios are identical — and insignificantly different from zero. Overall, our results indicate that firms' investments in diversity initiatives are associated with tangible financial benefits, but stockholders, at least over the period of our study, do not share in these benefits.

The remainder of this paper is organized as follows. The next section reviews the literature on diversity and corporate social responsibility, with an emphasis on the reasons diversity initiatives

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may provide financial benefits to the firm. The sections that follow present our data and methodology, empirical results, and conclusions.

## **2. Diversity, Corporate Social Responsibility, and Financial Performance**

*Our consumers, customers and suppliers become more and more diverse every day, so our success depends on our ability to understand diverse consumers' needs and to work effectively with customers and suppliers around the world. Diversity is the uniqueness that everyone — from suppliers to employees to corporate officers — brings to fulfill P&G's Purpose, Values and Principles. (A.G. Lafley, Procter & Gamble's CEO, quoted from P&G's Diversity Supplier Brochure, 2006.)*

A well-developed academic literature suggests workplace diversity is a source of significant competitive advantage. The resource-based view of the firm proposes that developing and maintaining human capital is the primary determinant of a firm's ability to gain a competitive advantage and achieve higher performance levels (McWilliams, Van Fleet and Wright, 2001; and Wright et al., 1994). Researchers have made the case that developing a diverse workforce is one way firms pursue this type of human capital-based competitive advantage. For example, Jackson (1992) asserts that better decisions are made when a broader range of perspectives and issues is analyzed by diverse groups. Cox (1994) and McLeod, Lobel and Cox (1996) argue that the opinions generated by a culturally diverse workforce lead to higher quality decisions. Cox (1994) further points out that team building, problem solving, creativity and innovation are enhanced when all available human resources are employed, including a multicultural workforce. Proponents of diversity also assert that employers should hire women and minorities in order to attract and understand the needs of a demographically diverse customer base (Cox, 1994; and Morrison, 1992). Leonard, Levine and Joshi (2004) argue that a close match between employee and customer demographics may improve performance by reducing communication costs among people from the same racial, ethnic, gender or age group. Anecdotal evidence also suggests diversity leads to better performance. For example, *Fortune* magazine describes their diversity elite as "stellar performers," claiming that the stocks of firms singled out for diversity recognition routinely outperform the S&P 500 index (Hickman, 2002).

Hamel (1998) and Simons, Pelled and Smith (1999) directly link diversity with strategy, arguing that strategic innovation is the result of: 1) bringing a diverse set of voices into the strategy dialogue; 2) creating conversations about opportunities in underserved markets; 3) focusing on passions that lie outside the normal firm repertoire; 4) developing new perspectives on both capabilities and customer needs; and 5) launching low risk market experiments. These authors also assert that none of these inspirations for strategic innovation is likely to be found among traditional managers or employees.

Surprisingly, there is little evidence of a relation between workplace diversity and firm performance. Richard, Barnett, Dwyer and Chadwick (2004) find that totally homogeneous groups may not thrive in an environment requiring decision speed and aggressive competitive behavior. As management group diversity approaches a moderate level, however, the positive effects of diversity are likely to yield performance advantages in higher-risk strategic contexts. Keys, Ellis, Newsome and Friday (2003) find significant positive excess returns averaging 1.57% around the publication date of the issue of *Fortune* magazine that recognizes firms for diversity promotion efforts. Richard (2000) surveyed banks in California, Kentucky and North Carolina, compiling information regarding the racial composition of the workforce and attitudes regarding diversity. He reports no evidence of a direct positive relation between cultural diversity and performance.

Kuczynski (1999) argues that diversity initiatives are usually not focused on profitability and shareholder returns, but are more often pursued because they are simply "the right thing to do". This view of diversity contrasts with the resource-based view, suggesting that diversity is another aspect of firms' commitment to corporate social responsibility (CSR), instead of a strategic initiative intended to deliver a return on investment. The relation between CSR and performance has been studied more extensively than the relation between diversity and performance. Stakeholder

theory suggests CSR will contribute to corporate financial performance (CFP) because the satisfaction of various stakeholder groups is instrumental to the financial success of the organization (Donaldson and Preston, 1995; and Jones, 1995). Orlitzsky, Schmidt and Rynes (2003) predict that non-market strategies such as CSR will become increasingly important as activist groups and the media gain influence in pluralist western societies, and that "... high CSR bolsters a company's competitive advantage" (p. 405).

Strict proponents of shareholder value maximization are often in conflict with stakeholder theory advocates, however, because stakeholder theory does not exalt the interests of shareholders over other stakeholders. As described by Vermeir, Van deVelde and Corten (2005, p. 94): "Socially-responsible companies do not exclusively maximize shareholder interests, but rather also take into account the social, community, and environmental interests of third parties or stakeholders involved in its activities." Scholars and practitioners have expressed concern that adhering to high ethical and social standards translates into higher product prices, a competitive disadvantage, and lower profitability (Walley and Whitehead, 1994; and Hart and Ahuja, 1996). Recent headlines from *The Wall Street Journal* such as "Will Social Responsibility Harm Business?" (Murray, 2005) and "Corporate Social Concerns: Are They Good Citizenship, Or a Rip-Off for Investors?" (Hymowitz, 2005) demonstrate the high degree of skepticism that persists regarding the compatibility of CSR and capitalist values.

Empirical evidence regarding corporate social responsibility and financial performance is mixed. Waddock and Graves (1997) report a positive relation between an index of CSR and performance measures such as return on assets in the following year. In a meta-analysis of over 50 studies of CSR and CFP, Orlitzsky, Schmidt and Rynes (2003) provide evidence that CSR leads to superior financial performance. Vermeir, Van deVelde and Corten (2005) cannot replicate the correlation between corporate social responsibility and financial performance reported by Orlitzsky et al. (2003), however. Other researchers, including McWilliams and Siegel (2000, p. 603), reach similar conclusions: "... CSR has a neutral impact on financial performance." Aupperle, Carroll and Hatfield (1985) also fail to find a relation between CSR and performance. McGuire, Sundren and Schneeweis (1988) conclude that CSR is related to prior, rather than subsequent performance, which suggests CSR does not result in financial benefits, but rather that high-performance firms are more likely to pursue CSR initiatives. Hillman and Keim (2001) argue that the CSR/performance link may be more subtle, theorizing that performance benefits are likely to be found only among firms practicing direct stakeholder management, but not in firms participating in broader social issues. Their empirical findings corroborate these hypotheses.

Although over US\$2 trillion is invested in professionally-managed SRI vehicles (Social Investment Forum, 2005), there is no evidence that socially-responsible mutual funds earn excess returns, although these funds do not underperform conventional investment strategies, either. Many studies have shown that the performance of SRI funds is not significantly different from the performance of other categories of mutual funds; among these are Hamilton, Jo and Statman (1993), Sauer (1997), Goldreyer, Ahmed and Diltz (1999), Statman (2000), and Bello (2005). Boutin-Dufresne and Savaria (2004) show that combining socially-responsible stocks into portfolios reduces diversifiable risk. Bollen and Cohen (2005) find the flow of funds in and out of socially-responsible mutual funds is less volatile compared to conventional mutual funds. They conclude that this lower turnover is consistent with higher loyalty on the part of investors, who most likely value aspects of these funds beyond their strict financial attributes.

Kochan et al. (2003) summarized the results and conclusions reached in studies of the relation between race and gender diversity and business performance carried out in four large firms by a research consortium known as the Diversity Research Network. They observed few direct positive or negative effects of diversity on performance. Kochan et al. (2003) summarized many reasons why, despite supportive theory, little evidence of a relation between diversity and performance has been found. Among these are:

- ◆ The empirical literature does not support the simple notion that more diverse groups, teams, or business units necessarily perform better, feel more committed to their or-

ganizations, or experience higher levels of satisfaction (Jackson, May and Whitney, 1995; Milliken and Martins, 1996; and Williams and O'Reilly, 1998).

- ◆ Diversity may simultaneously produce more conflict and employee turnover as well as more creativity and innovation (Jehn et al., 1999; and Williams and O'Reilly, 1998).
- ◆ Diversity has been associated with higher rates of turnover among top management team members (Jackson et al., 1991).
- ◆ Diversity may affect performance differently, depending on firms' business strategies (Richard 2000; Richard et al., 2004).

Additionally, it is our observation that much of the research on the diversity/performance relation tends to focus on one dimension of diversity (e.g., age, gender, race) and one employee level (top management teams, supervisory, front-line employees), which may understate firms' overall commitment to diversity.

The resource-based view of the firm suggests diversity provides direct benefits to the firm via the human resource function and relationships with customers, suppliers, and other stakeholders. Finding that firms with exemplary diversity records outperform peer firms with less distinguished records would support this view. If diversity is more like firms' other commitments to socially-responsible behavior, however, it is less likely these firms will exhibit a record of superior financial performance. Our null hypothesis, therefore, reflects the expectation of no difference in the financial performance of the diversity award winners:

*H<sub>0</sub>: Firms with a high overall commitment to diversity, as identified by Fortune and DiversityInc magazines, will exhibit performance similar to their peers based on a wide variety of accounting, financial, and market-based criteria.*

Finding a performance advantage among firms pursuing diversity initiatives rejects the null hypothesis, which provides support for the resource-based view that diversity initiatives are a source of strategic and competitive advantages that contribute to firms' overall financial performance. On the other hand, failure to reject the null hypothesis suggests diversity is best viewed as another aspect of firms' commitment to socially-responsible behavior, and not a strategic initiative intended to result in tangible financial benefits.

### **3. Data and Methodology**

The DiversityInc Top 50 Companies for Diversity list is derived exclusively from corporate survey submissions. The survey has more than 200 questions and is sent to over 700 companies, as well as promoted on DiversityInc.com and in *DiversityInc* magazine. Questions are organized in four areas: CEO Commitment, Human Capital, Corporate Communications (internal and external) and Supplier Diversity.

Respondents provide information on work-force demographics by race/ethnicity and gender, on race/ethnicity and gender for managers at different levels, and on retention rates by gender and race/ethnicity. Information is also provided about supplier diversity, including whether companies include all small businesses in defining diverse suppliers, and if companies offer loans or other financial assistance to minority- and women-owned suppliers.

The *Fortune* magazine list is compiled based on a similar survey instrument sent to the Fortune 1000 list of companies, plus any of the remaining 200 largest firms in the U.S. who are not included in the Fortune 1000. The evolving nature of these lists is demonstrated by the fact that the annual feature story highlighting these firms in *Fortune* was entitled "The Diversity Elite" in 1999 and prior years, but the title was changed to "America's 50 Best Companies for Minorities" starting in 2000. We focus on the firms highlighted in the 2004 issues of each magazine. The identity of these firms and the matching firms is shown in Table 1. Because *DiversityInc* magazine ranks firms numerically and allows for ties, the 2004 Diversity 50 list actually contains 53 firms, while the *Fortune* magazine list consists of 50 firms exactly.

Table 1

Diversity50 and Fortune 50 Samples with Matching Firms

DiversityInc		Fortune	
Diversity 50	Matching Firms	Fortune 50	Matching Firms
Abbott Labs	Wyeth	Abbot Labs	Wyeth
Altria Group	Reynolds American	American Express	UBS
American Express	Citigroup	Applied Materials	Dover Corp
Anheuser-Bush	Coors	AT & T Corp	NTL
AT & T Corp	NTL	Avon Products	Estee Lauder
Avon Products	Estee Lauder	Bank of America	Wells Fargo
Bank of America	J.P. Morgan Chase	BellSouth	MCI
BellSouth Corp	MCI	Citigroup	Morgan Stanley
Boeing	Honeywell	Coca-Cola Co	Heinz
Bristol Myers Squibb	Schering-Plough	Colgate Palmolive	Clorox
Cardinal Health	McKesson Corp	Consolidated Edison	Constellation Energy
Cisco Systems	Apple	Darden Restaurants	Aramark
Coca-Cola Co	Heinz	DTE Energy	Cinergy
Daimler Chrysler	John Deere	Eastman Kodak	Avid Technologies
Dell Computers	Apple	General Motors	Ford
Delta Airlines	AMR Corp	Golden West Financial	Sovereign Bancorp
Disney	Viacom	Hilton	Marriott
Exxon Mobil	Chevron-Texaco	J. P. Morgan Chase	Wells Fargo
Fannie Mae	Freddie Mac	Knight-Ridder	New York Times
General Electric	Tyco International	McDonalds	Starbucks
Hewlett Packard	Texas Instruments	Merck	Eli Lilly
IBM	EDS	MGM Mirage	Harrahs
Intel	Texas Instruments	Nordstrom	Ross Stores
Johnson & Johnson	Merck	Pepco Holdings	Pinnacle West
McDonalds	Starbucks	Pepsico	Heinz
Microsoft	Oracle	PG & E Corp	Public Service Ent. Group
Northrop Grumman	United Technologies	Pitney Bowes	Ingersoll-Rand
Office Depot	Staples	PNM Resources	WPS Resources
Pepsico	Heinz	Procter & Gamble	Johnson & Johnson
Pfizer	Eli Lilly	Prudential Financial	MetLife
Pitney Bowes	Ingersoll Rand	Safeway	Albertsons
Procter & Gamble	Colgate Palmolive	SBC	BCE
Raytheon	United Technologies	Schering-Plough	Bristol-Myers Squibb
SBC Communications	BCE	Sempra Energy	XCEL Energy
Sears	J. C. Penney	So. California Edison	PPL Corp
Sprint	MCI	Starwood Hotels	Marriott
Time Warner	Pixar	UnionBancal	Northern Trust Corp
Unisys	Lucent	United Parcel Service	FedEx
United Parcel Service	FedEx	Verizon	BCE
Verizon	BCE	Washington Mutual	Sovereign Bancorp
Wachovia	MBNA	Wyndham	Interstate Hotels
Wal-Mart	Target	Xerox	Lexmark
Wells Fargo	U.S. Bancorp	Yum Brands	Starbucks

Table 1 (continued)

DiversityInc		Fortune	
Diversity 50	Matching Firms	Fortune 50	Matching Firms
Xerox	Lexmark	Dennys	....
Ace Hardware	....	Fannie Mae	....
Boise Cascade Office Prod	....	Freddie Mac	....
Computer Sciences Corp	....	Hyatt	....
Ford	....	Levi Strauss	....
General Dynamics	....	TIAA-CREF	....
General Motors	....	US Postal Service	....
Harley Davidson	....		
Lockheed Martin	....		
Toyota	....		

The matching firms are selected by identifying all firms listed in the Compustat database with the same 4-digit SIC codes as each firm on the respective lists<sup>1</sup>. The firm with the same 4-digit SIC whose market capitalization is closest to that of the matching diversity company is selected as the matching firm (market capitalization data are obtained from Compustat). If no firm in the same 4-digit SIC class is found with a market capitalization at least half as large as a firm on either diversity list, we repeat the above procedure using a 3-digit SIC match. If a matching firm is still not identified, we match based on 2-digit SIC code and market capitalization and/or book value of assets. This procedure yielded 44 matches from the *DiversityInc* list and 43 matches from the *Fortune* list.

Some firms from the lists were omitted because they were privately-held or could not be matched according to the above criteria. For example, from the *DiversityInc* list, Boise Cascade Office Products, a spin-off of Boise Cascade Corp., and Toyota, listed as an ADR, did not have sufficient data histories to be included in the study. The *DiversityInc* list also includes all the major U.S. auto makers, which presents a problem in terms of matching, since these firms are all obvious matches for one another. We handled this by matching the first auto maker on the list (alphabetically), DaimlerChrysler, with John Deere, and omitting Ford and GM from the study. Several firms were also excluded from the *Fortune* list because they were privately-held (Hyatt, Levi Strauss, TIAA-CREF), or we were otherwise unable to obtain market data (U.S. Postal Service). Because Fannie Mae and Freddie Mac were both included in the *Fortune* list, and represent the only suitable matches for each other, these firms were also excluded. Matching firms are occasionally used twice, restricted to extreme cases when these firms represent the only suitable match for two firms in the sample. This occurs in the case of Apple, Texas Instruments, and BCE Inc. (telecommunications)<sup>2</sup>. If a firm is listed in Table 1 without a matching firm, this indicates the firm was excluded from the analysis that follows.

Perhaps most surprising of all, however, is that the respective lists only have 9 firms in common between them, which means that 41 of the firms on *Fortune's* 2004 list and 44 of the firms on the *DiversityInc's* 2004 list do not appear on the other magazine's list. This raised the interesting question of whether the lists capture different aspects of corporate diversity, and possibly different benefits (or costs) to firms, which influenced our decision to analyze the firms featured on both lists as separate samples, instead of combining the two lists into one larger sample.

<sup>1</sup> Firms are matched based on metrics from year-end 1997, which immediately precedes our 5-year period of study.

<sup>2</sup> The only truly odd match that resulted from implementing the matching algorithm was the match of Nordstrom with Ross Stores.

We focus on the 5-year period 1998-2002 for several reasons. Publication of these diversity-recognition lists does not constitute an official "announcement", at least not as the term is commonly-used in the academic literature, so a typical event-study treatment of these events does not represent the best methodological approach. In other words, when a firm announces its plans to invest in a new project or raise its annual dividend, it is revealing information to the market regarding something that has not yet occurred. This is not the case with the publication of the diversity lists, however. Firms are not revealing the intention to pursue diversity initiatives, but are rather being recognized for past accomplishments in this area. The award criteria do not include a prediction that firms will remain as committed to diversity in the future as they have been in the past. Moreover, when Keys, Newsome and Friday (2003) report a 1.57% average excess announcement return around the publication date of the *Fortune* magazine lists, they are not measuring the effect of a diverse workforce on shareholder wealth, but are rather measuring the effect of some *positive publicity* associated with diversity practices that have already been implemented. It is implausible to think that firms make a sustained effort to cultivate a diverse workforce just to earn 1-2 percentage points of excess returns during a short-term event study window. We therefore focus on the 5-year period preceding the year in which the firms completed the *DiversityInc* and *Fortune* survey instruments, as it is likely firms were incurring costs and reaping the benefits of their diversity initiatives during these years. Studying the prior 5-year period also avoids any possible contamination that might exist between firms' accounting and financial reporting practices and attempts to achieve recognition by participating in the surveys. By focusing on 1998-2002 we can also observe the year-by-year behavior of the portfolios in both bull and bear market conditions, as U.S. stock returns were generally positive from 1998-1999 and generally negative from 2000-2002.

We obtain stock returns from the Center for Research in Securities Prices (CRSP) database. Accounting data are obtained from Compustat. Economic value-added (EVA), market value-added (MVA), net operating profit after tax (NOPAT) and return on average capital (ROAC) are obtained from Stern Stewart's Annual EVA/MVA Ranking Database. Our empirical investigation consists of a year-by-year comparison of the diversity portfolios with the matching firms. We compare firms based on traditional accounting metrics such as debt/assets, net profit margin, return on assets (ROA) and return on equity (ROE), as well as the Stern Stewart value metrics referenced above. The median values of these metrics for the diversity and matching firms are compared using a nonparametric Wilcoxon matched-pairs signed-ranks test. We also compare the excess returns of the portfolios based on a 3-factor market model, estimated using monthly returns:

$$R_{it} - RF_t = \alpha_i + \beta_i (MKTRF)_t + \lambda_i (SMB)_t + \gamma_i (HML)_t + \varepsilon_{it}. \quad (1)$$

In addition to the traditional market risk premium factor (*MKTRF*), financial theory allows for other systematic factors in equity expected returns (Fama and French, 1993), such as a small-firm premium (*SMB*) and a value premium (*HML*), as shown in Equation (1) above. The time series of risk factors are obtained from Ken French's online data library<sup>1</sup>. We also report the median values of the risk factor loadings in Equation (1) for each of the portfolios.

#### 4. Empirical Results

Table 2 shows mean and median descriptive statistics for the Diversity 50 and Fortune 50 companies and their respective matching firms. Metrics are reported as of year-end 1997, the year before the period we study (1998-2002). Both the Diversity 50 and the Fortune 50 firms are larger than the matching firms in terms of market capitalization and sales. The difference in book value of assets is less pronounced, and only significantly larger in medians for the Diversity 50 firms. The mean and median market to book (M/B) ratios of both sets of firms are comparable, indicating the market places approximately equal value on their future growth prospects.

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<sup>1</sup> [http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\\_library.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html).



## Descriptive Statistics (in millions)

Descriptive statistics for the Diversity 50 and Fortune 50 and their respective matching firms as of year-end 1997. Mean and median values for the diversity samples are compared to the matching firms using matched pairs *t*-statistics and Wilcoxon matched-pairs signed-ranks tests, respectively.

Panel A: Diversity 50 Firms vs. Matching Firms				
Mean	Market Capitalization	Book Value of Assets	Sales	M/B Ratio
Diversity 50	92,415	133,967	47,283	5.18
Matching Firms	39,557	99,786	23,233	5.11
Matched pairs <i>t</i> -statistic	4.16**	1.11	3.53**	0.04
Median	Market Capitalization	Book Value of Assets	Sales	M/B Ratio
Diversity 50	75,841	47,143	30,645	3.52
Matching Firms	28,341	27,367	15,298	2.76
Wilcoxon signed-ranks test	10.55**	8.41**	10.08**	2.44*
Panel B: Fortune 50 Firms vs. Matching Firms				
Mean	Market Capitalization	Book Value of Assets	Sales	M/B Ratio
Fortune 50	43,598	133,823	23,059	4.83
Matching Firms	27,798	91,288	18,024	3.77
Matched pairs <i>t</i> -statistic	2.63**	1.18	2.23*	0.96
Median	Market Capitalization	Book Value of Assets	Sales	M/B Ratio
Fortune 50	19,888	24,591	10,169	2.66
Matching Firms	12,539	17,347	9,014	2.78
Wilcoxon signed-ranks test	6.60**	-1.34	-1.38	-0.42

\*, \*\* Significant at the 0.05 and 0.01 levels, respectively.

Table 3 reports median financial ratios for the diversity samples and matching firms, year-by-year from 1998 to 2002<sup>1</sup>. As shown by the debt/assets ratio, the use of debt is generally increasing for both sets of firms, although the increase is less pronounced for the matching firms. The Wilcoxon signed-ranks test indicates that the median Diversity 50 debt/assets ratio is significantly higher in each year 1999-2002. Both sets of firms are only moderately leveraged, however, with a maximum median debt/assets ratios of 26% over the 5-year period. Results are similar for the Fortune 50 firms, which use higher leverage than the Diversity 50. Indicative of a well-matched sample, the matching firms' leverage is also higher than the firms matched to the Diversity 50. The Wilcoxon signed-ranks test indicates the median Fortune 50 debt/assets ratio is significantly higher than the matching firms. With a maximum median leverage of 36% and 31%, however, both the Fortune 50 and matching firms are only moderately leveraged.

<sup>1</sup> We report only median metrics for reasons of parsimony. We also compared differences in the means of the variables reported in Tables 3 and 4 using matched-pairs *t*-statistics. All findings are virtually identical to the median results reported here, and are available from the corresponding author upon request.

Table 3

## Median Financial Ratios (all values in percent), Diversity 50 and Fortune 50 vs. Matching Firms

Median values of the debt/assets, net profit margin, return on assets and return on equity for the diversity and matching portfolios, year-by-year from 1998 to 2002. Data are obtained from Compustat. Differences between the medians are tested using a Wilcoxon matched-pairs signed-ranks test.

	1998	1999	2000	2001	2002
Panel A: Debt to Assets					
Diversity 50	24.37	24.96	26.13	26.06	26.22
Matching Firms	22.24	20.75	18.15	20.80	20.41
Wilcoxon signed-ranks test	-0.21	3.48**	2.23*	2.65**	7.82**
Fortune 50	31.07	31.03	35.85	34.97	35.11
Matching Firms	24.45	23.91	26.01	31.31	30.04
Wilcoxon signed-ranks test	3.78**	3.39**	4.22**	1.22	2.44*
Panel B: Net Profit Margin					
Diversity 50	9.30	10.13	9.90	7.34	8.66
Matching Firms	6.34	7.00	7.35	5.84	4.58
Wilcoxon signed-ranks test	3.36**	3.42**	0.80	2.77**	5.89**
Fortune 50	9.84	9.98	9.79	7.08	8.58
Matching Firms	8.70	7.11	6.08	5.60	6.54
Wilcoxon signed-ranks test	2.44*	1.67	4.85**	4.67**	4.49**
Panel C: Return on Assets					
Diversity 50	7.37	7.96	8.00	4.79	5.01
Matching Firms	5.99	5.91	6.77	4.23	3.58
Wilcoxon signed-ranks test	2.44*	5.47**	1.67	1.19	4.73**
Fortune 50	5.13	4.51	4.93	3.42	3.24
Matching Firms	5.14	4.61	3.24	3.41	3.72
Wilcoxon signed-ranks test	0.68	-1.13	3.57**	5.24**	3.06**
Panel D: Return on Equity					
Diversity 50	23.01	26.01	24.54	13.98	18.76
Matching Firms	20.49	17.78	20.27	13.35	14.14
Wilcoxon signed-ranks test	2.05*	2.77**	1.13	1.55	2.02*
Fortune 50	16.31	19.22	19.28	14.35	14.93
Matching Firms	15.76	18.55	15.22	13.00	12.30
Wilcoxon signed-ranks test	-0.92	-2.65*	0.45	3.51**	0.98

\*, \*\* Significant at the 0.05 and 0.01 levels, respectively.

The median net profit margin (NPM) of the Diversity 50 firms is higher than the matching firms in all 5 years, and significantly so in 4 out of 5 years. The difference in median NPM is also economically significant, between 2-4% from 1998-2002, consistent with the idea that a more diverse workforce provides firms with a competitive advantage. The median NPM of the Fortune 50 firms is also higher in all 5 years, once again significant in 4 out of 5 years. The difference in median NPM for the Fortune 50 is similar to that of the Diversity 50, between 2-4% from 1998-2002.

The median return on assets (ROA) of the Diversity 50 firms is consistently larger than the matching firms, although this difference is only significant in 3 out of the 5 years. A similar pattern emerges for return on equity (ROE). The Diversity 50 firms have higher median ROE than their matching counterparts in 3 out of 5 years. The ROA and ROE evidence corroborates the NPM results, indicating that the Diversity 50 companies have a performance advantage over the matching firms in most years, based on accounting measures of profitability. The Fortune 50 median

ROA is also larger than the matching firms from 2000-2002, as is their median ROE; these differences are significant in 1999 and 2001. Both sets of diversity award winners exhibit a performance advantage over the matching firms as measured by NPM, ROA and ROE, consistent with the idea that the investment in diversity made by these firms provides them with a competitive advantage.

Table 4 presents the Stern Stewart value metrics for the Diversity 50 and matching firms. The median NOPAT (a measure of after-tax operating cash flows) and MVA (the difference between the market value of the firm's securities and the capital invested in the firm) of the Diversity 50 is significantly larger than that of the matching firms in each year 1998-2002. This cannot be interpreted as a performance advantage, however, as these metrics are largely dependent on a firm's scale of operations, which favors the Diversity 50 due to their larger size (Table 2). Although both sets of firms earn reasonably stable NOPAT throughout the 2000-2002 bear market, the median MVA of the firms contracts steadily as the bear market takes its toll on the value of their securities.

Table 4

Median Value Metrics: Diversity 50 and Fortune 50 vs. Matching Firms

Median values of the net operating profit after tax, market value-added, economic value-added and return on average capital for the diversity and matching portfolios, year-by-year from 1998 to 2002. Data are obtained from the Stern Stewart EVA/MVA Ranking Database. Differences between the medians are tested using a Wilcoxon matched-pairs signed-ranks test.

	1998	1999	2000	2001	2002
Panel A: NOPAT (millions)					
Diversity 50	2,300	2,500	2,561	2,515	2,578
Matching Firms	940	1,105	1,164	1,074	1,122
Wilcoxon signed-ranks test	7.68**	8.24**	8.89**	8.24**	9.05**
Fortune 50	625	1,105	1,218	921	939
Matching Firms	291	391	514	396	374
Wilcoxon signed-ranks test	7.14**	8.30**	8.95**	10.38**	6.10**
Panel B: MVA (millions)					
Diversity 50	60,253	43,220	49,151	35,200	30,557
Matching Firms	17,538	17,502	12,660	7,126	6,313
Wilcoxon signed-ranks test	7.07**	3.35**	7.39**	9.05**	8.49**
Fortune 50	4,654	5,391	3,895	3,376	3,201
Matching Firms	1,731	2,765	4,503	4,203	2,838
Wilcoxon signed-ranks test	6.25**	5.38**	1.61	2.83**	2.08*
Panel C: EVA (millions)					
Diversity 50	546	552	468	(113)	(39)
Matching Firms	147	190	166	226	31
Wilcoxon signed-ranks test	3.76**	1.94	2.46*	-0.81	0.69
Fortune 50	49	106	142	88	60
Matching Firms	12	46	16	5	24
Wilcoxon signed-ranks test	1.52	0.09	0.68	2.83**	-2.17*
Panel D: ROAC (percent)					
Diversity 50	14.2	12.7	11.9	8.6	7.1
Matching Firms	11.2	12.8	13.7	10.5	9.2
Wilcoxon signed-ranks test	2.95**	1.21	-1.62	0.08	1.45
Fortune 50	7.75	9.92	11.06	8.66	7.10
Matching Firms	6.93	8.59	7.63	7.51	7.82
Wilcoxon signed-ranks test	1.96	2.56*	3.96**	4.85**	1.99

\*, \*\* Significant at the 0.05 and 0.01 levels, respectively.

The EVA and ROAC of the respective portfolios can be directly compared, however, as these metrics indicate how much NOPAT a firm makes in a year relative to the dollar amount of capital invested in operations. The median EVA of the Diversity 50 is significantly larger than the matching firms in 1998 and 2000, although their ROAC is only significantly larger in 1998. The performance advantage of the Diversity 50 based on accounting metrics does not manifest as strongly in the EVA and ROAC value metrics.

Table 4 also reports the value metrics for the Fortune 50 and matching firms. The median NOPAT of the Fortune 50 is significantly larger than that of the matching firms in every year from 1998-2002. As was the case with the Diversity 50, this result is expected and not a source of performance advantage, due to the larger size of the Fortune 50 firms. The Fortune 50 firms have significantly larger MVA during the bull market years 1998-1999, but as the mean MVA of both sets of firms contracts from 2000-2002, this difference narrows. The median MVA of the matching firms is significantly larger than the Fortune 50 median MVA in 2001.

There is no difference in the Fortune 50 firms' median EVA from 1998-2000, although from 2001-2002, their median EVA is larger than the matching firms. The Fortune firms' median ROAC is also significantly greater from 1999-2001, again suggestive of superior performance. Similar to the results for the Diversity 50, the clear advantage observed in the accounting metrics is not as evident in EVA and ROAC.

Cumulative excess returns from the 3-factor market model shown as Equation (1) are reported in Table 5 and depicted as Figures 1 (Diversity 50) and 2 (Fortune 50). The excess returns are reported for the 5-year period 1998-2002, and the bull and bear market subperiods 1998-1999 and 2000-2002, respectively. As shown in both the Table and the Figures, the returns of the portfolios do not deviate significantly from the overall market. Both sets of firms earn stock returns that are appropriate for their level of risk. There is no significant difference between the cumulative excess returns of the portfolios over the various periods. The only result worthy of commentary is that there is weak evidence that the stock prices of the diversity-winners lag the market slightly during the bull run, and hold up moderately better during the bear market phase. Overall, the modest advantage observed in the accounting-based performance metrics does not extend to the stock returns of the diversity samples. As investments, the performance of these stocks is indistinguishable from the matching firms.

Table 5

Cumulative Excess Returns from a 3-Factor Model

Median cumulative excess returns for the diversity and matching portfolios, calculated using Equation (1):

$$R_{it} - RF_t = \alpha_i + \beta_i (MKTRF)_t + \lambda_i (SMB)_t + \gamma_i (HML)_t + \varepsilon_{it}$$

Returns are reported for the 5-year period 1998-2002, and the subperiods 1998-1999 and 2000-2002. Differences between the median excess returns were tested using a Wilcoxon matched-pairs signed-ranks test. The test statistics were all insignificant, indicating no difference between the excess returns of the diversity samples and their respective matching firms.

Panel A: Diversity 50 vs. Matching Firms		
Time Period	Diversity 50	Matching Firms
1998-1999	-4.61%	7.96%
2000-2002	3.08%	-9.40%
1998-2002	-1.53%	-1.44%
Panel B: Fortune 50 vs. Matching Firms		
Time Period	Fortune 50	Matching Firms
1998-1999	-7.08%	0.18%
2000-2002	5.77%	-1.16%
1998-2002	-1.30%	-0.99%



Fig. 1. Cumulative Excess Returns from a 3-Factor Model: Diversity 50 vs. Matching Firms

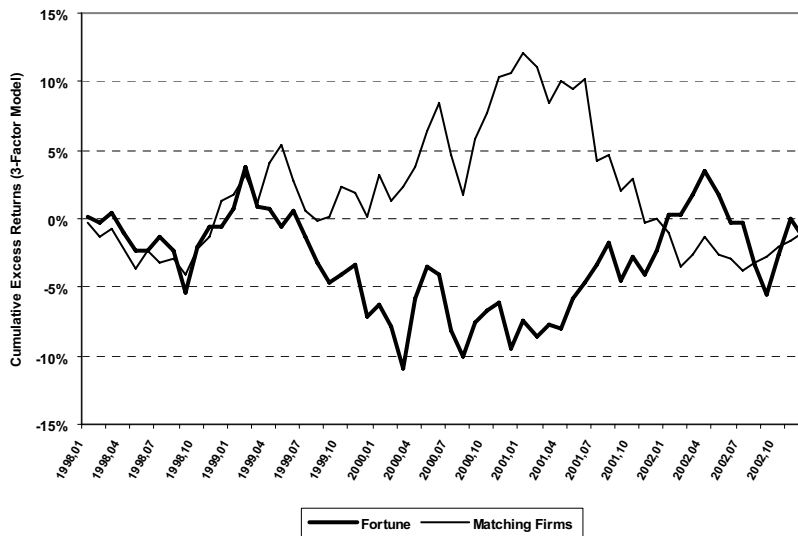


Fig. 2. Cumulative Excess Returns from a 3-Factor Model: Fortune 50 vs. Matching Firms

Table 6 shows the median risk factor loadings of the diversity winners and the matching portfolios. The coefficient on the traditional market beta (*MKTRF*) is not significantly different than that of the matching firms for either set of companies. For the Diversity 50, the median alpha of the portfolio is significantly larger by 0.3% per month. There is also some evidence that the Diversity 50 matching firms are less sensitive to the market value premium (*HML*). The median market beta of the Fortune 50 firms is lower than the Diversity 50, suggesting the Fortune survey criteria identify lower-volatility stocks. Indicative of well-matched samples, the Fortune 50 matching firms also have a lower market beta than the firms matched to the Diversity 50. Almost all of the Fortune 50 risk metrics are insignificantly different than those of the matching firms, however, with the exception of the median size premium factor (*SMB*), which is negative for the Fortune firms and positive for the matching firms, consistent with the smaller size of the matching firms. Overall

there is no compelling evidence of any significant difference in risk between either the Diversity 50 or Fortune 50 and their respective matching firms.

Table 6

Median Risk Factors from a 3-Factor Model

Median risk factor loadings for the diversity and matching portfolios, calculated using Equation 1 (see below). Factor loadings are reported for the 5-year period 1998-2002. Differences in the medians are tested using a Wilcoxon matched-pairs signed-ranks test.

$$R_{it} - RF_t = \alpha_i + \beta_i (MKTRF)_t + \lambda_i (SMB)_t + \gamma_i (HML)_t + \varepsilon_{it}$$

	Alpha	MKTRF	SMB	HML
Diversity 50	0.008	0.903	-0.301	0.226
Matching Firms	0.011	1.052	-0.217	0.283
Wilcoxon signed-ranks test	-3.91**	-1.77	-1.32	2.40*
	Alpha	MKTRF	SMB	HML
Fortune 50	0.006	0.752	-0.146	0.559
Matching Firms	0.007	0.905	0.039	0.568
Wilcoxon signed-ranks test	-0.91	-0.72	-3.10**	-0.79

\*, \*\* Significant at the 0.05 and 0.01 levels, respectively.

### 5. Conclusions

A large body of theoretical literature suggests that cultivating a diverse workforce and developing relationships with other diverse stakeholders lead to improved decision-making, problem-solving, innovation and creativity, which provides firms with a strategic and competitive advantage. We investigate whether these advantages are discernible in firms' financial performance. We compare firms recognized for exemplary diversity practices by *DiversityInc* and *Fortune* magazines in 2004 to matched samples of peer firms, using a wide variety of accounting, financial, and market-based metrics.

Firms listed on the respective diversity honor rolls have a performance advantage over the matching firms during the years immediately preceding publication of the lists, particularly in accounting-based profitability measures. These firms are larger than the matching firms in terms of market capitalization, assets and sales. Accordingly, we observe superior performance based on metrics directly correlated with firm size, such as net operating profit after tax and market value-added. Over most of the years we study, both sets of diversity-award winners also have higher profit margins, return on assets, return on equity and economic value-added compared to the matching firms. These advantages do not directly translate into benefits to shareholders, however. Over the five years of our study, the risk-adjusted excess returns of the diversity and matching portfolios are identical, and insignificantly different from zero.

The higher profitability of the diversity award winners is consistent with the idea that diversity initiatives provide firms with a strategic and competitive advantage, and is unresponsive of the view that corporate diversity initiatives are merely another aspect of firms' commitment to social responsibility. The failure of this higher profitability to be reflected in firms' stock returns is consistent with several explanations regarding the investment firms make in cultivating a diverse workforce and developing relationships with other diverse stakeholders. The most straightforward explanation is that, in an economic sense, the benefits from fostering diversity are approximately balanced by the costs, with some of these costs not reflected in traditional accounting metrics, which implies diversity programs are value-neutral from the viewpoint of shareholders. Our results are also consistent with the idea that diversity in the workplace occurs organically, particularly in certain geographic regions, which means there are little or no explicit economic costs associated with recruiting workers from diverse backgrounds and developing relationships with other diverse stakeholders. If that is the case, our

results suggest there are no explicit economic benefits associated with diversity, either. It is also possible that pro-diversity firms are more likely to engage in other costly socially-responsible behaviors that do not engender proportional benefits, which prevents diversity-initiative gains from having a positive effect on the stock prices of these firms. Additionally, our tests do not rule out the possibility that the failure of the superior financial performance of the diversity award-winners to be reflected in their stock returns is due to pricing irrationalities that may have occurred as the stock market bubble of the late 1990s inflated and deflated over the period of our study. While all these potential explanations represent interesting hypotheses to be pursued by future researchers, the bottom line of our study is that firms' profitability appears to be positively affected by diversity initiatives, and investors who own stock in these firms can expect to earn an appropriate level of risk-adjusted returns.

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