DIVERSIFYING INVESTMENTS

A STUDY OF OWNERSHIP DIVERSITY AND PERFORMANCE IN THE ASSET MANAGEMENT INDUSTRY

Executive Report January 2019

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I. INTRODUCTION AND BACKGROUND

INTRODUCTION

Research across a multitude of fields and industries has identified the potential economic and social benefits of diversity. Yet the asset management industry continues to struggle with a lack of diversity. Research studies and articles have consistently documented the low level of representation by women and racial/ethnic minorities among asset managers. Analyzing and exploring diversity in the asset management industry is vital given its sheer enormity and the wealth it generates (\$69.1 trillion in assets under management and \$99 billion in profits in 2016).

This report captures insights from a new study about the state of diversity in the U.S. asset management industry. Professor Josh Lerner (Harvard Business School) and Bella Research Group led the research, building on a similar study published in May 2017. While numerous studies have documented the lack of diversity among asset managers and asset management firm employees, the current research contributes a new perspective by analyzing the diversity of ownership of asset management firms as well as any performance differences between diverse-owned and non-diverse owned asset mangers.

The research was commissioned by the John S. and James L. Knight Foundation, a private grantmaking organization. Beginning in 2010, Knight Foundation embarked on an effort to diversify the management of its endowment holdings, and as of June 30, 2018, had invested \$830 million with diverse-owned firms (representing 36 percent of endowment holdings). Knight supported this study to inform the larger discussion unfolding about diversity in the asset management industry.

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KEY FINDINGS

1. COMPOSITION: Firms with female or minority ownership make up a low percentage of all firms in the asset management industry. These diverse-owned firms represent an even smaller fraction of the total number of funds and total AUM across all asset classes.

2. PERFORMANCE: Diverse-owned funds perform at a level comparable to that of their non-diverse peers. Within conventional statistical confidence levels, funds managed by diverse-owned firms typically perform as well as non-diverse funds after controlling for relevant characteristics (such as firm size, fund size, geography and investment focus). Extending this analysis to include sophisticated risk adjustment approaches for hedge funds and mutual funds, and public market equivalent metrics for private equity funds reinforced the conclusion that returns, in general, are statistically indistinguishable between diverse-owned and non-diverse-owned funds. Insufficient data made such analysis impossible for real estate funds.

3. TRENDS: Representation of diverse-owned firms has increased modestly in recent years among hedge funds, private equity and real estate. However, AUM with diverse-owned firms has fluctuated significantly year-to-year.

4. DATA: The biggest barrier to research on diverse ownership or management is the lack of data, as most data providers for the asset management industry do not track diversity in a systematic way. The report relies on the most comprehensive data sources available, but to encourage further research on this topic, improved data on the composition of firm ownership and management is required.

For the full report and set of findings, click here.

For the enhanced performance analysis, click here.

RESEARCH

The research addressed the following key questions:

- What is the number of women-owned and minority-owned firms and funds as well as the amount of assets under management (AUM)?
- How have diverse-owned firms and funds performed compared with all firms?
- How has diverse ownership trended?
- How have different types of investors engaged with diverse-owned firms?

Because little is known about diverse ownership, the study aims to shed much needed light on the neglected topics of diverse ownership and whether any performance differences exist. Women- and minorityowned firms were identified among the universe of asset management firms, though the definition for diverse ownership varies slightly across the data sources. Firms are commonly considered women-owned or minority-owned if at least 25 percent of firm ownership is held by women or minorities.

While the report uses this definition, it also distinguishes between substantial diverse ownership (25 to 49 percent) and majority diverse ownership (50 percent and higher) where the data permit.

This research encompasses four asset classes¹: (1) mutual funds, which include mutual funds, separately managed accounts, marketable securities, and a few exchange traded funds, (2) hedge funds, (3) private equity and (4) real estate. Addressing the questions required developing a suitable methodology for gathering and analyzing data.

This report utilized several robust databases capturing information about asset management firms. In particular, mutual fund data came from eVestment and hedge fund information from Hedge Fund Research, while private equity and real estate fund statistics were supplied by Preqin and augmented with hand-collected information. The data were then subjected to a series of "stress tests" to assess the impact of various gaps. Clear limitations to the data should be noted. First, there is no single database across asset classes with authoritative or complete data on diverse ownership. Compounding this, the databases use different criteria for "ownership." Thus, several firms will have invariably been excluded or their degree of diverse ownership may be imperfectly defined.

Readers are encouraged to learn more about the methodology, data sources and limitations in the Appendix.

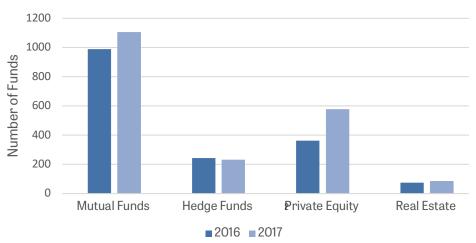
¹ Some experts contend that mutual funds do not represent a true asset class. We use them to represent accounts that invest in publicly traded securities (including stocks and bonds), a distinct asset class, and retain the terminology for simplicity's sake.

II. KEY CHANGES FROM 2016

Across the four asset classes — mutual funds, hedge funds, private equity, and real estate — the overall number of diverse funds grew by 25 percent, from 1,599 in 2016 to 2,003 in 2017. Private equity, real estate and mutual funds exhibited the largest changes over that period. The number of diverse-owned private equity funds grew 60 percent, from 362 to 577, real estate grew 19 percent from 75 to 89, while the number of diverse-owned mutual funds increased 12 percent from 988 to 1,105.

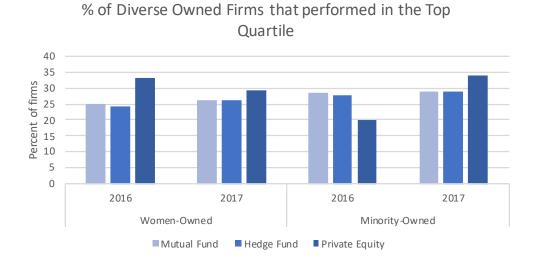
While the year-on-year growth was significant, the number of substantially or majority diverse-owned funds represented just 8.6 percent of the total in 2017. In 2016, they made up 7.3 percent of the total, using a narrower dataset. Our data provider Preqin started collecting diversity indicators for its private equity and real estate funds in 2017, and the additional data were partly responsible for the year- over-year increase in diverse-owned funds for those asset classes.

Aggregating across the four asset classes studied, majority diverseowned firms represent just 0.9 percent of AUM, a figure that increases to just 1.3 percent for substantially and majority diverse-owned firms. Due to the greater data availability for private equity and real estate funds in the current study, this proportion is not directly comparable to the 1.1 percent representation seen in 2016.



Change in the Number of Funds from 2016 to 2017

2 Caution should be exercised when comparing PE and RE values from year-to-year as some of the increase could be caused by our access to more complete data in 2017. Also, the aggregate total of women- and minority-owned funds could double-count any funds with minority-women ownership. Looking at performance, diverse-owned funds are over-represented among the top quartiles for their asset classes. The number of diverseowned mutual funds and hedge funds that performed in the top quartile remained largely the same from 2016 to 2017. However, in private equity, minority-owned firms switched from being under-represented in 2016 (19 percent) to being substantially over-represented in 2017 (34 percent), and women-owned firms continued to be over represented in the top quartile, but by a smaller percentage (33 percent in 2016 and 29 percent in 2017).



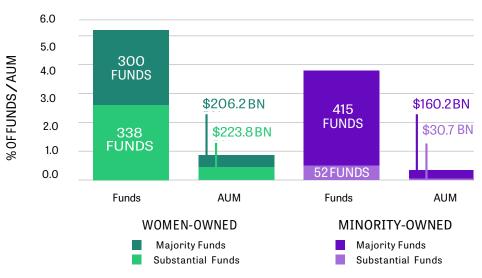
III. CURRENT STATE OF DIVERSE OWNERSHIP

In the asset management industry, firms owned by women or minorities represent a small fraction of the total number of firms, total number of funds, and total AUM. Findings for each asset class are summarized below.

MUTUAL FUNDS

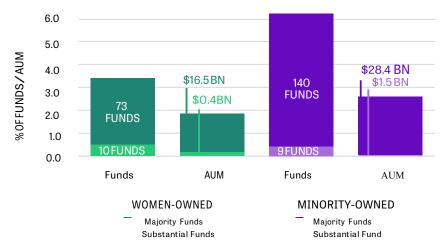
The research identified 136 women-owned and 120 minority-owned firms as of 2017, managing 638 and 467 mutual funds, respectively. Numbers of women- and minority-owned mutual funds represent just 5.5 percent and 3.9 percent of all mutual funds, respectively.

Of the women-owned mutual funds, 338 have substantial female ownership (25 to 49 percent) and 300 have majority female ownership (50 percent and higher). Together, these women-owned funds manage \$430 billion in AUM, accounting for less than 1 percent of the total asset class AUM. Similarly, minority-owned mutual funds comprise 52 funds with substantial minority ownership and 415 funds with majority-minority ownership (that is, 50-plus percent minority ownership); all together, minority-owned mutual funds manage less than 0.5 percent of the asset class AUM.



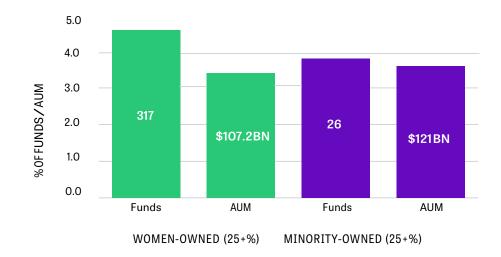
HEDGE FUNDS

As of mid-2017, hedge funds managed by women- and minority-owned firms represent about 4.6 percent and 8.9 percent of all the asset class, respectively. Most of the identified diverse hedge funds are managed by firms with 51 percent or more female or minority ownership. Together, women- and minority-owned hedge funds control less than 1 percent of the total industry AUM.



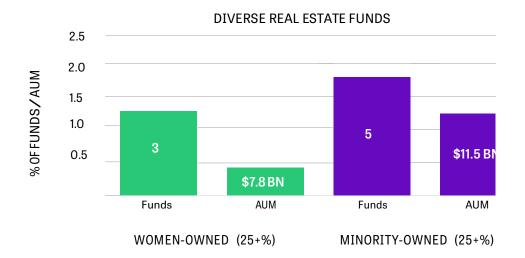
PRIVATE EQUITY

Among active private equity funds (established since the beginning of 2004), the research identified 146 raised by women-owned firms and 106 by minority-owned firms, making no distinction between substantial ownership (25 to 49 percent) and majority ownership (50-plus percent) because of data constraints. These firms represent approximately 9 percent of the total fund count and control less than 8 percent of AUM in the private equity industry.



REAL ESTATE

The research identified 17 women-owned firms and 21 minority-owned firms (established since the beginning of 2004) among the comparable universe of real estate firms in Preqin. Together, this represents less than 4 percent of all real estate firms. Representation by AUM is even lower, with women and minorities representing about 0.8 percent and 1.2 percent of the industry totals, respectively.



IV. PERFORMANCE OF DIVERSE-OWNED FIRMS

Within conventional statistical confidence levels, funds managed by diverse-owned firms typically perform as well as non-diverse funds, after controlling for relevant firm- and fund-level characteristics (firm size, fund size, geography, investment focus, etc.).

The research used several regression models to test performance, and the vast majority of regression coefficients for female and minority ownership are insignificant (that is, there is no discernible difference between the performance of diverse and non-diverse funds). In a few select cases, diverse-owned firms either outperformed or underperformed non-diverse firms.

In the 2017 report, we also explored performance using a series of sophisticated techniques. For mutual funds and hedge funds, our investigation of returns included a consideration of risk. Because diverse and non-diverse funds may differ in their exposure to financial market risk, failure to appropriately control for risk may bias the results. For example, suppose that, on average, women-owned funds are less risky than men-owned funds and there are no gender differences in unadjusted returns. It is reasonable to expect that women would outperform men if they changed their strategy to take on a higher level of risk. We therefore explored the impact of women and minority ownership on multi-factor risk-adjusted returns.

Our results conclude that even controlling for risk, the results are the same — no significant difference in performance for women and minority-owned firms.

For private equity, we used Kaplan Schoar Public Market Equivalents (PMEs) to compare the performance of private equity funds to that of public markets. Here we also determined that there was no consistent difference in performance between diverse and non-diverse firms relative to public markets.

Mutual Funds: Using eVestment data from 2011-2017, we find no evidence that women or minority ownership affects the returns of U.S. mutual funds. For the purposes of this study, mutual funds include all funds in the eVestment Traditional Database that met our selection criteria, including some marketable securities that are not technically institutional mutual funds. Hedge Funds: Our analysis of Hedge Fund Research data from 2005-2018 shows little evidence that women or minority ownership has any effect on fund performance. Minority-owned funds outperform women-owned funds when comparing the average unadjusted and risk-adjusted returns, although the differences in performance are small.

Private Equity: Our examination of PE funds from 2006 to 2015 using data from Preqin shows no convincing evidence that women ownership significantly impacts returns. Interestingly, there is some mixed evidence that minority ownership increases PE returns. Of the three asset classes, PE has the smallest sample size.

Asset Class	Women-Owned	Minority-Owned	Non-Diverse Owned
Mutual Funds	2.33%	2.37%	2.21%
Hedge Funds	0.59%	0.72%	0.54%

Comparative Performance*

*Unadjusted monthly returns

The research also analyzed the distribution of performance and the extent to which diverse-owned firms comprise the top performance quartile across asset classes (i.e., what percentage of women- and minorityowned funds performed in the top 25 percent?). Among mutual funds and hedge funds, about a quarter of slightly more diverse-owned funds are represented in the top quartile of performance.

In private equity, both women-owned and minority-owned firms are overrepresented among top quartile performers.

Asset Class	Women-Owned	Minority-Owned
Mutual Funds	26%	29%
Hedge Funds	26%	29%
Private Equity	29%	34%

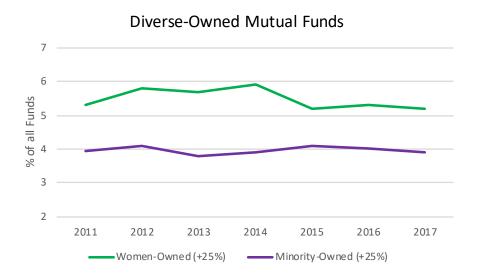
Top Quartile Performers

V. TRENDS IN DIVERSE OWNERSHIP

In recent years, representation of diverse ownership has generally increased in terms of the number of diverse firms and funds as well as the amount of AUM. Yet diverse firms still represent only a small fraction of the total asset management industry. Trends over time are described for each asset class, using the number of funds as the measure of diverse ownership. Additional details and figures that chart the timeline trends for firms and AUM are available in the full report.

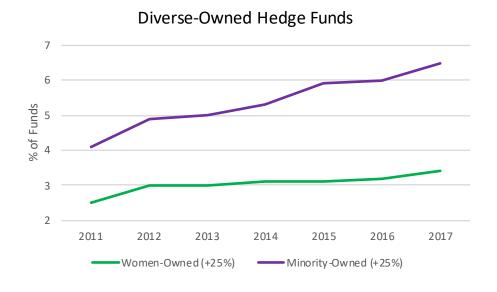
MUTUAL FUNDS

We do not observe any distinct upward or downward trends in the representation of diverse mutual funds since 2011. Over the entire period, both women-and minority-owned mutual funds stay nearly constant in proportion to all funds (5.3% to 5.2% for women owned-firms; 3.95% to 3.90% for minority-owned firms).



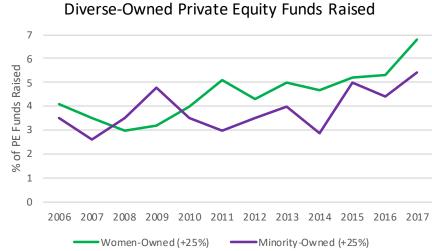
HEDGE FUNDS

Since 2011, women- and minority-owned hedge funds have gained representation, but these hedge funds represent a tiny fraction of the industry.



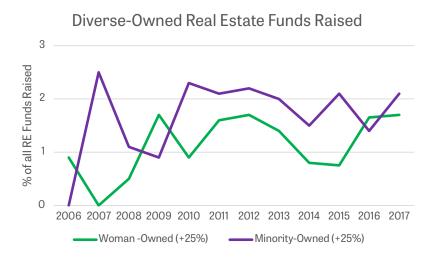
PRIVATE EQUITY

The representation of women- and minority-owned private equity funds since 2011 has increased, in terms of the number of funds raised and the amount of fundraising dollars. Women-owned funds accounted for just over 4 percent of the funds raised in 2006, and by 2017 they made up over 6.8 percent of new PE funds. Similarly, minority-owned representation climbed from about 3.5 percent to 5.4 percent over the same period.



REAL ESTATE

Despite significant fluctuations in the data, there is a generally increasing trend in the representation of diverse-owned real estate funds. Women-owned funds accounted for 0.9 percent of the funds raised in 2006, and by 2017 they made up 1.8 percent of the total funds raised. Similarly, minority-owned representation climbed from 0.0 percent to 2.1 percent over the same period.



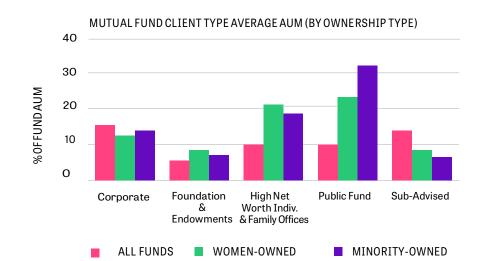
VI. INSTITUTIONAL INVESTOR TYPES FOR DIVERSE-OWNED FIRMS

Finally, the research analyzed the mix of institutional investor types that invest with diverse mutual funds and private equity firms. The mutual fund analysis utilized data on the AUM invested by different institutional investor types; the private equity analysis utilized data on the number of limited partners by type. The available hedge fund data does not have information on investors, and the sample of diverse real estate investment funds is too small for a meaningful treatment of this topic.

Overall, public investment funds appear to be better represented among diverse funds compared with non-diverse funds, for both the mutual fund and private equity industries. In addition, foundations and endowments are well-represented in diverse mutual funds but are underrepresented in diverse private equity funds.

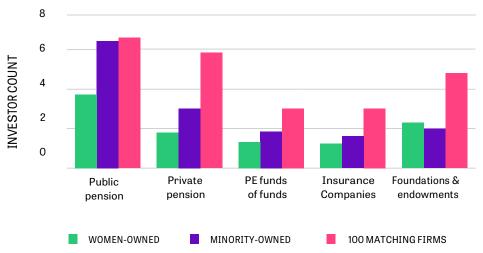
MUTUAL FUNDS

The research examined the mix of institutional investor types and the AUM they invest with diverse and non-diverse mutual funds based on the most recent data from 2017. The average women- or minority-owned fund has proportionally more AUM invested by public funds, foundations, endowments, high net worth individuals and family offices (compared with non-diverse funds). Investments from corporate clients and sub-advised funds make up a larger proportion of the AUM with non-diverse funds.



PRIVATE EQUITY

The research examined the representation of LP types that invest in diverse-owned private equity firms compared with their representation in a random sample of 100 private equity firms from Preqin.³ The data show the representation in terms of the number of LPs, not in terms of AUM, because such data is not available. Among the most substantial differences, insurance companies and private equity funds of funds represent a smaller proportion of the investors in diverse-owned firms, and public pensions make up a larger fraction of the investors in those firms.



PRIVATE EQUITY INSTITUTIONAL INVESTOR COUNT (BY FUND TYPE)

³ We randomly sampled 100 firms that have at least one fund meeting the criteria for inclusion: (1) based in U.S., (2) not a private equity fund-of-funds and (3) vintage year 2004 or later.

VII. CONCLUSION

The study sheds light into just how little diversity exists in the ownership of asset management firms. Aggregating across all four asset classes examined in this report, diverse-owned firms represent just 1.3 percent of industry AUM. While diverse-owned firms have grown in representation in recent years, the growth has been moderate and has not uniformly occurred across all asset classes.

An important finding of the research is that there is no statistical difference in performance between diverse-owned firms and their peers. Even when we adjust for risk in mutual funds and hedge funds and compare to public market returns for private equity funds, we do not find consistent differences in results. A common refrain has stated that poor performance among diverse-owned firms has precluded their receipt of greater investment; the findings of this study cast doubt on this assertion.

Quantifying the performance of diverse funds and the current level of diverse ownership is an initial step to understanding and encouraging diversity in asset management. We hope to increase awareness and knowledge of this important topic and encourage enhanced data reporting in the future.

The report is intended to serve as a foundation for future inquiry and more robust data collection about diversity in the asset management industry. Creating a public, nonproprietary database with this information should be a top priority for the institutional investment community.

Gathering, analyzing and discussing better information about diversity in the asset management industry is critical to advancing progress.

The study was commissioned by the John S. and James L. Knight Foundation and led by Josh Lerner, Chair of the Entrepreneurial Management Unit and the Jacob H. Schiff Professor at Harvard Business School, and the Bella Research Group.

APPENDIX: RESEARCH METHODOLOGY

This note provides a summary of the methodology developed by Bella Research Group for the analysis of asset management firm ownership diversity. The full report contains a more detailed description of the methodology.

DEFINITIONS

The research uses the term "diverse-owned" to refer more broadly to the group of firms owned by women and/or minorities. The definition of "minority" includes racial/ethnic minorities (such as Hispanic, black, Asian and Native American) but does not include other groups such as veterans or disabled persons. Firms may be classified as both women-owned and minority-owned if they have substantial levels of ownership held by women and minorities (for example, firms with both women and minority owners or firms owned by women who also belong to racial/ethnic minority groups). Typically, firms are considered women- or minority-owned if at least 25 percent of firm ownership is held by female or minority individuals, respectively. It is important to note that the classification of diverse owned firms varies slightly across the data sources used in this study.

DATA SOURCES

No single database contains all the information needed for the analysis, so several data sources were used, each specializing in a different asset

class. To assemble a "universe" of the U.S. asset management industry, the research relied on publicly available data and the following commercial databases:

- eVestment Traditional Database
- Hedge Fund Research (HFR)
- Preqin Private Equity
- Preqin Real Estate

This report includes all active U.S.-based funds from the above databases, excluding funds of funds. For private equity and real estate, we define "active" funds as those with vintage years 2004 or later.

DATA ANALYSIS AND LIMITATIONS

To quantify the extent of diverse ownership in each asset class, the subsets of women- and minority-owned firms from each database were compared with the "universe" of all U.S.-based firms listed in each database. The results are further broken down by other firm- and fund-level characteristics such as investment focus, firm location and geographic target. These data are also used to analyze timeline trends, performance and the mix of institutional investor types.

The databases used have relatively strong, but not perfect, coverage of each asset class. There may be biases in the types of firms that report to commercial databases and the data that they make available. The approach to analyzing the data for each asset class and any limitations are further described below.

MUTUAL FUNDS: Some experts contend that mutual funds do not represent a true asset class. We use them to represent accounts that invest in publicly traded securities (including stocks and bonds), a distinct asset class, and retain the terminology for simplicity's sake. Data on institutional mutual funds were obtained from the eVestment Traditional Database which includes mutual funds, separately managed accounts, commingled funds, and a limited number of exchange- traded funds. These data were used to investigate the current state of diversity for this class of assets, construct a timeline of diverse managers, analyze the performance of these diverse firms, and describe the types of institutional investors engaged with these firms. Firms with at least 25 percent ownership held by women or by racial/ethnic minorities were identified, and some analyses further break down the groups of women- and minority-owned firms into two categories: substantially diverse (25 to 49 percent ownership) or majority diverse (50-plus percent ownership). It is important to note that fund managers often benefit from economies of scale, with many of the largest fund managers structured as publicly traded companies. Therefore, a robustness check was conducted for the mutual fund performance analysis that used mutual fund size as a proxy for public ownership and dropped the largest 5 percent of mutual funds. The core set of regressions (described in the report) were estimated with this restricted data set and compared with the results for the full data set. The estimated parameters were similar for both sets of regressions, suggesting that performance is similar for diverse and non-diverse mutual funds. Therefore, the robustness check supports the findings using the full data set, and it suggests that the effect of including public companies is minimal. While the study found that some minority- and women-owned mutual funds performed among the top funds, it is important to note that academic evidence suggests that actively managed mutual funds generally underperformed public markets during the study period, regardless of ownership status.

HEDGE FUNDS: Hedge Fund Research (HFR) data were used to analyze the current state of diversity in the hedge fund space, construct a timeline of diverse managers and analyze the performance of these diverse managers. As with mutual funds, ownership groups were separated into substantially (25 to 49 percent) and majority (50-plus percent) diverse. HFR covers roughly half of the hedge fund industry and was selected among several hedge fund databases because of its detailed demographic information on firm ownership, which is crucial to this report. While there is no reason to believe that the characteristics of the hedge funds covered in HFR differ in any meaningful way from the total universe of hedge funds, any conclusions drawn from these data should be interpreted cautiously. HFR does not include information about the investors in each hedge fund, which precluded analyzing the investor types with diverse and non-diverse hedge funds.

PRIVATE EQUITY AND REAL ESTATE: These asset classes rely on Pregin, a leading data source in the alternatives industry. Between the analysis for the 2016 report and the start of research for this version, Pregin started collecting diversity information on private equity and real estate funds. This information was augmented by hand-collected lists obtained from publicly available reports. That ownership information was merged with data on firm- and fund-level characteristics from Pregin. Even so, the analysis will have inevitably missed some diverse-owned firms, particularly in the real estate space. In addition, the data may suffer from some biases, such as a bias toward larger, better known diverse firms. The sources used for this report provide greater coverage of diverse-owned private equity firms than that of diverse-owned real estate firms. For private equity, the research analyzed the current state of diversity, timeline of diverse ownership, performance, and institutional investor types of diverse- and non-diverse-owned funds. For real estate, the report includes findings pertaining to the current state of diversity, trends in diverse ownership, and analysis of performance, but due to the small sample size for diverse firms, was unable to meaningfully analyze institutional investor types.

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