# Fire and Police Pension Fund, San Antonio

## Response to Request for Proposal for Investment Consulting Services

September 30, 2011

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# Appendix



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Wilshire

## Section III - Consultant Questionnaire
## A Company Background

**1. Provide a brief history of the firm including year of inception, ownership, affiliated and subsidiary companies and relationships, joint ventures, and any business partners.**

Wilshire Associates Incorporated ("Wilshire®" or "Wilshire Associates") was founded in 1972. Wilshire earned a leadership position in the industry by consistently delivering innovative investment research and services to the institutional market. For over thirty years, our clients have trusted Wilshire to lead the institutional investment community by transforming complex theory into practical applications.

Our timeline exhibits the many accomplishments that Wilshire and its affiliates have developed on behalf of its clients.

***The 1970s – Early Innovation***

- *Wilshire Analytics*
- *Wilshire 5000 Total Market Index℠*
- *Equity and Fixed Income Risk Models*
- *Integrated Asset / Liability Modeling*
- *Equity Style Indexes*
- *Equity and Fixed Income Portfolio Optimization*
- *Wilshire Trust Universe Comparison (Wilshire TUCS®)*

***The 1980s – Continued Innovation***

- *Wilshire Consulting*
- *Performance Attribution Models*
- *Holdings-Based Style Measurement Model*
- *Performance Fee Calculation Model*
- *Wilshire New York Office*

***The 1990s – Globalization***

- *Wilshire Compass Consulting Analytics*
- *Canadian Trust Universe Comparison Service*
- *Wilshire Cooperative Universe Service℠*
- *Wilshire Pittsburgh Office*
- *Wilshire London Office*
- *Wilshire Amsterdam Office (Wilshire Associates Europe BV)*
- *Wilshire Private Markets*
- *Global Equity and Fixed Income Risk and Attribution Models*
- *Wilshire Canberra Office (Wilshire Australia Pty Limited)*
- *Wilshire Funds Management*

***The 2000s – Investing for Clients in the New Millennium***

- *Risk Budgeting Platform*
- *Wilshire iQuantum$^{SM}$ Total Fund Analytics*
- *Streamline Business Units*
- *Hedge Fund Consulting*
- *Wilshire Consulting Investment Research Group*
- *Commitment Driven Investing ("CDI")*
- *Wilshire Singapore Office*
- *Wilshire Chicago Office*
- *Wilshire Tokyo Office (Wilshire Japan K.K.)*
- *Wilshire TargetPath$^{SM}$ (Custom Target Maturity solution)*
- *Global Pensions 2007 Investment Consultant of the Year Award*
- *Wilshire Denver Office*

***Ownership Structure***

Wilshire is a privately held Subchapter S corporation that is 100% owned by its active key employees. Dennis Tito, a co-founder of the firm, continues to serve in the active capacity of Chairman and Chief Executive Officer. We have no other outside owners of joint ventures.

Wilshire Private Market operations in Amsterdam, Tokyo, Canberra and Melbourne, Australia are conducted through affiliated companies, Wilshire Associates Europe, BV, Wilshire Japan K.K., and Wilshire Australia Pty Limited. Wilshire's participation as general partner in various limited partnership investment vehicles is conducted through entities controlled by Wilshire's affiliate, Wilshire Global Advisors Inc. Wilshire has no parent company. The ownership of Wilshire Global Advisors Inc. is identical to that of Wilshire. These operations were set up as affiliated companies to comply with local laws.

Wilshire periodically offers its employees an opportunity to acquire equity ownership in the firm, enabling them to become principals.

**2. Describe all significant developments with your firm in the last three years, such as changes in ownership, restructuring, personnel reorganization, and philosophy. Disclose any known or contemplated future changes in your organization.**

Wilshire Analytics has been reorganized from a product focus with five separate divisions, to a functional focus with four groups. The four groups now comprising Wilshire Analytics are Sales and Marketing, Research and Design, Development, and Relationship Management. Wilshire Analytics staff have been assigned to one of the four groups to ensure continuity with ongoing product development and support. The new structure allows for a more coordinated response to market and client needs while still maintaining Wilshire's long history of innovation and product development in risk analytics.

Other than continuing to expand ownership to other active key employees, no other near term changes in Wilshire's ownership structure or changes in the organization are anticipated.

**3. Provide the address of your corporate office and a description of the firm, including number and location of offices, number of professional consultants, and scope of services offered. Also indicate which office(s) would service the Retirement System.**

Wilshire Associates and its affiliates employ more than 300 people in eleven offices around the world. Wilshire focuses its business on the objective of our clients successfully investing their assets. Wilshire offers these services through four separate business units: Wilshire Consulting, Wilshire Private Markets, Wilshire Funds Management, and Wilshire Analytics.

Wilshire Consulting currently employs 26 consultants who manage client relationships from the Santa Monica, Denver, and Pittsburgh offices. The Fire and Police Pension Fund, San Antonio (the "Fund") would be serviced primarily from the Denver office.

**Santa Monica:**
1299 Ocean Avenue, Suite 700
Santa Monica, CA 90401
(310) 451-3051
All Wilshire services and products

**Pittsburgh:**
210 Sixth Avenue, Suite 3720
Pittsburgh, PA 15222
(412) 434-1580
Wilshire Consulting, Wilshire Private Markets, Wilshire Funds Management

**Jersey City:**
525 Washington Blvd., Suite 2205
Jersey City, NJ 07310
(201) 984-4899
Wilshire Analytics, Wilshire Funds Management

**Chicago:**
222 W. Adams St. Ste. 1725
Chicago, IL 60606
(312) 762-5500
Wilshire Funds Management

**Denver:**
370 Interlocken Blvd., Ste. 620
Broomfield, CO 80021
(303) 626-7444 x4444
Wilshire Consulting

**Singapore:**
3 Pickering Street, #02-39, Nankin Row
China Square Central
Singapore 048660
65.6435.2169
Wilshire Analytics client service

**London:**
23 Austin Friars
London, EC4M 9DQ
United Kingdom
44.20.7920.3100
Wilshire Analytics client service

**Amsterdam:**
Wilshire Associates Europe B.V.
World Trade Center
Tower H, 25th Floor
Zuidplein 204
Amsterdam
31.20.305.7530
Wilshire Private Markets

**Canberra:**
Wilshire Australia Pty Limited
Level 6, AMP
1 Hobart Place
Canberra ACT 2601
Australia
61.2.6279.6000
Wilshire Private Markets

**Tokyo:**
Wilshire Japan K.K.
Otemachi First Square
1-5-1 Otemachi, Chiyoda-ku
4th Floor, East Tower
Tokyo 100-0004
81.3.5219.1376
Wilshire Private Markets

**Melbourne**
Wilshire Australia Pty Limited
Melbourne Centre, Level 9
440 Collins Street
Melbourne 3000 VIC
Australia
61.3.9607.1313
Wilshire Private Markets

**4. Provide an organizational chart of your firm showing functions, positions, and titles of all key personnel involved in consulting services. Provide a brief description of the relationship between each component and the consultant(s) who would service the Retirement System.**

An organizational chart of Wilshire Consulting is provided on the following page.

**Julia K. Bonafede, CFA, President of Consulting**

**Consulting**

**Senior Consultants**
Felicia Bennett, Managing Director
William Bensur, CFA, Managing Director
Mark Brubaker, CFA, Managing Director
Mike Dudkowski, Managing Director
Andrew Junkin, CFA, CAIA, Managing Director
David Lindberg, CFA, Managing Director
Jim Neill, CFA, Managing Director
Eileen Neill, CFA, Managing Director
Marlin Pease, CFA, Managing Director
Maggie Ralbovsky, CFA, Managing Director
Michael Schlachter, CFA, Managing Director
Tom Toth, CFA, Managing Director
Karyn Williams, PhD., Managing Director
Howard Yata, Managing Director
Amy Hemphill, Vice President
Patrick Lighaam, Vice President
Michael Patalsky, CFA, Vice President

**Client / Consultant Support & Manager Research**
Alex Browning, Senior Associate
Joseph Dressel, CFA, CAIA, Senior Associate
Jerry Hsu, Senior Associate
Thao Nguyen, Senior Associate
Jason Samansky, Senior Associate
Karim Simplis, Senior Associate
Catherine Trzeciak, CPA, Senior Associate
Justin Wiser, CFA, Senior Associate
Ting Yeh, Senior Associate
Bradley Baker, Associate
Susanne Kline, Associate
Joseph Lloyd, Associate
Vardges Markosyan, CFA, Associate
Elizabeth Mete, Associate
Christopher Shelby, CFA, Associate
Jordan Wittes, Associate
J.M. Ruscetti, Senior Analyst
Alex Ford, Senior Analyst

**Performance Measurement**
Mangala Murthy, Associate
Jana DeLuca, Associate
Jeremy Henningsen, Senior Analyst
Swetha Ketty, Senior Analyst
Taveen Miloyan, Senior Analyst
Melissa Watters, Senior Analyst
Brian White, Senior Analyst
Heidi Zhang, Senior Analyst
Peter Braganca, Analyst
Nick Douty, Analyst
Thomas Dunlap, Analyst
William Hutcheson, Analyst
David Johnson, Analyst
Razmik Kirakosyan, Analyst
Juan Lozano, Analyst
Andrew Schroeck, Analyst
Giovanna Stanley, Analyst
Aaron Stuck, Analyst

**Other Wilshire Resources**

**Manager Research**
35+ Professionals
(Allocated between Manager Research and Consulting)
**Securities & Index Database Technology Support**
(firm wide resource – 6 professionals)

**Consulting Resources**

**Research**
Steven Foresti, Managing Director
**Asset Allocation**
Stephen Marshall, Managing Director
Ned McGuire, Senior Associate, FSA, CFA, FRM
Emmanuel Salta, PhD, Associate
**Investment Research**
Michael Rush, CFA, Vice President
Russell Walker, Vice President
Todd Douds, CFA, Senior Associate
Mayank Prasad, Analyst

**Investment Technology Solutions**
Charles Stunkard, CFA, Managing Director
**Risk Management**
Karyn Williams, PhD, Managing Director
**Wilshire TargetPath℠**
Daniel Leguellec, Vice President
**Wilshire Compass**
Christopher Tessman, Vice President

**Operations**
Ali Kazemi, Vice President
**Risk Measurement**
(2 Analysts)
**Data Group**
Claire Cohen, Associate
(6 Analysts)
**Performance Measurement**
Amy Hemphill, Vice President
Jason Samansky, Senior Associate

**Business Development**
Theodore Hermann, Managing Director
Sharon Riley, Vice President

Wilshire believes strongly that there must be a dedicated team assigned to each client account in order to establish an intimate working knowledge of a client's issues and, in effect, to become the extension of staff. All client service work is handled within the team and centralized resources are used to leverage the consulting team's time and expertise. In the case of a manager search, the dedicated consultant team directs the manager research effort, which is centralized, as the client's advocate. This direction ensures that the resulting recommended list of potential manager candidates are specified to meet the client's unique set of circumstances. Wilshire's centralized manager research must not only determine the degree of institutional quality of a money manager product, but for which type of client it may be most applicable. The dedicated consulting team can then use this information to leverage the client's time in completing a manager search.

There is no client-specific report, no recommendation and no analysis provided to a client that is not fully prepared by the individual consulting teams. Wilshire's depth and breadth of resources allows both centralized and dedicated resources to serve a client with full consultant accountability to that client. In effect, Wilshire provides each client with the personalized attention benefits of a small firm and the resources of a large firm.

**5. Describe all of your firm's lines of business and the approximate contribution of each to the total revenue. If your firm is an affiliate or subsidiary of an organization, state percent of the parent firm's total revenue generated by your firm.**

Wilshire is comprised of four distinct business units: Wilshire Consulting, Wilshire Private Markets, Wilshire Funds Management, and Wilshire Analytics, as described below.

***Wilshire Consulting*** *(25% of firmwide revenue in 2010)*

Wilshire Consulting offers the following services:

- Wilshire Consulting provides asset / liability analysis and asset / spending policy analysis, investment structure analysis, manager selection and evaluation, performance measurement, and investment research services to private and public pension plans (both defined benefit and defined contribution plans), foundations / endowments, and insurance companies.

- Wilshire Compass is a Windows-based application that provides institutional clients with analytical tools to evaluate managers, investment structures, and asset allocations, as well as access to Wilshire research. Wilshire Compass clients can receive updates to their software, which includes extensive manager and index databases, via the Internet. Wilshire Compass also allows clients to do custom work and analysis on data that is not in the database.

- Wilshire Risk Management Consulting - Since the inception of our Consulting practice nearly 30 years ago, Wilshire has worked with clients to identify risks that will not be systematically rewarded and to implement structures that help minimize or eliminate those risks. Very few organizations are structured to combine plan sponsor know-how, analytical expertise and technical systems – essential elements required to support plan sponsor risk management. Wilshire's ability to leverage these resources puts us in a unique position to define best practices.

- Wilshire Consulting also offers discretionary outsourcing solutions to institutions. Rooted in Wilshire's three decades of experience, our investment expertise lies in the selection of investment managers, the blending of complementary managers to control risk, and the monitoring of these investment solutions to help enhance risk-adjusted performance. We provide customized investment programs based on the risk tolerance of the investors we represent.

***Wilshire Private Markets*** *(17% of firmwide revenue in 2010)*

Wilshire Private Markets provides institutional investors access to global private markets through portfolios that invest in venture capital, leveraged buyout and other alternative investment opportunities on a discretionary basis for those clients wishing to outsource this function. In addition, Wilshire Private Markets offers to clients a number of services, including: discretionary asset management services, non-discretionary asset management services, a range of advisory services, and portfolio administration.

***Wilshire Funds Management*** *(23% of firmwide revenue in 2010)*

Wilshire Funds Management offers discretionary and non-discretionary "manager-of-manager" services as well as outsourcing solutions to financial institutions, commingled funds, and mutual fund complexes.

***Wilshire Analytics*** *(35% of firmwide revenue in 2010)*

Wilshire Analytics provides investment technology solutions to a broad range of firms, including central banks, custodial banks, hedge funds, insurance companies, investment management firms, mutual funds, plan sponsors, state retirement boards, trust departments, universities and more. Wilshire Analytics products provide a multitude of services, including risk management, asset allocation, investment accounting, marketing support, trade order management, portfolio optimization, scenario analysis and performance measurement to multi-currency portfolios for multiple asset classes of public securities. Products include Wilshire Axiom℠, Wilshire Atlas℠, Wilshire Abacus℠, Wilshire iQComposite℠, Wilshire iQuantum℠, Wilshire Compass InSite™, Wilshire Spectrum℠, Wilshire Trust Universe Comparison Service (Wilshire TUCS®), and Wilshire Cooperative Universe Service℠ (WILCOP).

In addition to the four separate business units, approximately 85 employees support shared functions such as accounting, marketing, information technology, and database support.

**6. State what you believe distinguishes your consulting services from your competitors. Describe any services of your organization that may not be offered by other consultants.**

Wilshire differentiates itself from competitors in terms of research, technology, experience, and business model.

***Research Capabilities***

Wilshire Consulting has a dedicated research team. Research topics are the direct result of client feedback and discussion, and the Investment Research Group routinely pursues interesting ideas to enable Wilshire to remain a thought leader in the industry.

We find that the combination of independent research, coupled with client-driven advocacy through consultant involvement in the research process, ensures an end product that is focused on relevant challenges facing Wilshire's consulting clients.

***Investment Technology Resources***

A significant focus of the firm's resources is on investment technologies and the application of investment technologies to solve investment-related problems. Our thought leadership started in the 1970's when Wilshire became an early innovator in creating the industry's integrated asset/liability analysis/simulation models as well as the industry's practical models in risk budgeting through beta and active risk analysis. Wilshire Compass was an early executive decision tool for fund sponsors and is now used by funds totaling nearly $1 trillion in assets to develop, monitor and evaluate their investment programs. Wilshire Consulting also benefits greatly from accessing the products of Wilshire Analytics, which are leading edge portfolio risk analytics. We use advanced fixed income analytics in our performance measurement system, utilize multifactor risk models for equities to conduct specialized portfolio analysis for our clients, and use a total fund risk management framework to facilitate identification, measurement and control of plan-wide risks.

***Experienced Staff***

Wilshire and its affiliates employ more than 300 people in eleven offices and affiliated companies around the world: Santa Monica (*headquarters*), Pittsburgh, Jersey City, Chicago, Denver, London, Amsterdam, Canberra, Melbourne, Singapore and Tokyo.

Wilshire's consulting staff currently consists of 26 consultants organized into six consulting teams, each with their own dedicated research and support staff while also sharing firm wide research and operational support resources. Each consulting team serves a diversified client base, which includes corporate and public fund sponsors, endowment and foundation funds, and non-profit institutional investors.

Wilshire's consultants have diverse backgrounds with experience in the investment management, plan sponsor, and custody businesses. Our high-quality, long tenured consultants provide client service through a dedicated team structure. Wilshire senior consultants average nearly 12 years with Wilshire and 15+ years with the industry; 90% have post-graduate degrees and 70% hold the Chartered Financial Analyst designation.

***Service Delivery Model***

We combine two prominent service models in investment consulting today: centralized resources and dedicated client service. We believe that there must be a dedicated team assigned to each client account in order to establish an intimate working knowledge of a client's issues and, in effect, to become the extension of staff. All client service work is handled within the team and centralized resources are used to leverage the consulting team's time and expertise. In effect, Wilshire provides each client with the personalized attention benefits of a small firm and the resources of a large firm.

## B Clients

**1. For all general, full-service consulting clients with which your firm has a current contractual relationship, provide the following by category:**

Below is a distribution of Wilshire Consulting clients by asset size:

| SIZE (MIL) | CORPORATE FUNDS | FOUNDATION / ENDOWMENT | HEALTHCARE | PUBLIC FUNDS | TOTAL |
|---|---|---|---|---|---|
| **$0 – $100** | 10 | 10 | 1 | 0 | 21 |
| **$101 – $500** | 12 | 17 | 3 | 5 | 37 |
| **$501 – $1,000** | 10 | 3 | 1 | 6 | 20 |
| **$1,001 – $5,000** | 15 | 5 | 1 | 10 | 31 |
| **Over $5,000** | 5 | 0 | 1 | 9 | 15 |
| **Total** | 52 | 35 | 7 | 30 | 124 |
| ***Total Assets*** | ***$100 Bil*** | ***$15 Bil*** | ***$15 Bil*** | ***$600 Bil*** | ***$730 Bil*** |

Wilshire Consulting clients have an average tenure of nine years and a median account size of $500 million.

**2. Provide a list of 3 current public fund general or full-service consulting clients with assets greater than $500 million for whom work similar to that requested in this RFP has been performed by your firm. Include name, contact person, telephone number, asset value, number of years they have been a client of the firm, and the services provided. The Fund may contact any of these clients as references. If you require advance notice of the Fund's intent to make inquiries, please so indicate.**

We encourage you to contact clients. However, as a matter of courtesy, we would appreciate the opportunity to contact our clients first before any reference checks are made. Therefore, we request that you contact Andrew Junkin at (303) 626-7446 should a reference check be required with any of the clients list below. All the clients listed are full-retainer consulting relationships.

**Dallas Employees' Retirement Fund**
Contact: Ms. Cheryl Alston, Executive Director
600 N. Pearl St., Suite 2450
Dallas, TX 75201

Phone: (214) 580-7710
Dates of Service: 2000-Present
Assets: $3.0 Bil

**Houston Municipal Employees' Pension System**
Contact: Mr. Greg Brunt, CIO
111 Bagby, Suite 2450
Houston, TX 77002
Phone: (713) 595-0138
Dates of Service: 1995-Present
Assets: $1.8 Bil

**Tacoma Employees' Retirement System**
Contact: Ms. Monica Butler, Executive Director
3628 South 35th Street
Tacoma, WA 98409
Phone: (253) 502-8200
Email: mbutler@ci.tacoma.wa.us
Dates of Service: 1986-Present
Assets: $1.1 Billion

**3. State the number of accounts, and value of assets represented in those accounts, lost during the last three years. List this for each one year period ending 2008, 2009, and 2010.**

Wilshire Consulting lost the clients listed below in 2008, 2009 and 2010.

| CLIENT | YEAR | APPROXIMATE ASSET VALUE | REASON |
|---|---|---|---|
| ***Alegent Health*** | 2010 | $100-$500 Mil | Changed vendors |
| ***Caremark Rx Inc.*** | 2010 | $500 Mil - $1 Bil | Consolidation |
| ***Evangelical Lutheran Church*** | 2010 | $1 - $5 Bil | Changed vendors |
| ***Northwest Airlines*** | 2010 | $1 - $5 Bil | Consolidation |
| ***The Osborn*** | 2010 | <$50 Mil | Outsourced |
| ***Children's Institute*** | 2010 | $100-$500 Mil | Changed vendors |
| ***Reynolds & Reynolds*** | 2010 | $100-$500 Mil | Changed vendors |
| ***ThyssenKrupp USA, Inc*** | 2010 | $1 - $5 Bil | Changed vendors |
| ***Medical Mutual of Ohio*** | 2009 | $100 - $500 Mil | Terminated Plan |
| ***City of Memphis*** | 2009 | $1 - $5 Bil | Changed vendors |
| ***University of Pittsburgh*** | 2009 | $1 - $5 Bil | Changed vendors |
| ***Avon Products Inc.*** | 2009 | $500 Mil - $1 Bil | Outsourced |
| ***Los Angeles Library Foundation*** | 2009 | <$50 Mil | Discontinued use of a consultant |
| ***New York Life Insurance*** | 2009 | $1 - $5 Bil | Changed vendors |
| ***Fletcher Jones Foundation*** | 2009 | $100-$500 Mil | Changed vendors |

| | | | |
|---|---|---|---|
| ***Carnegie Mellon University*** | 2009 | $1 - $5 Bil | Changed vendors |
| ***Buchanan Ingersoll*** | 2009 | $100-$500 Mil | Consolidation |
| ***Kaiser Aluminum and Chemical Corporation*** | 2009 | $100-$500 Mil | Changed vendors |
| ***BayCare Health System*** | 2008 | $1 - $5 Bil | Changed vendors |
| ***Town of Arlington ERS*** | 2008 | $100- $500 Mil | Outsourced to State |
| ***Rhode Island ERS*** | 2008 | $5- $10 Bil | Changed vendors |
| ***Mardag Foundation*** | 2008 | <$100 Mil | Consolidation |
| ***City of Woonsocket*** | 2008 | <$100 Mil | Changed vendors |
| ***Ohio Bureau of Workers' Comp.*** | 2008 | $15 - $20 Bil | Changed vendors |

## C Standards of Conduct

### 1. Has your firm adopted the Code of Ethics and The Standards of Professional Conduct of the CFA Institute? If so, how is employee compliance monitored?

The Wilshire Consulting Code of Conduct is modeled after the Code of Ethics and Standards of Professional Conduct of the CFA Institute, and is acknowledged in writing by our consulting staff upon employment and annually thereafter. It includes an escalating procedure to our compliance department and the head of Wilshire Consulting. Wilshire is made up of experienced investment professionals who pride themselves on upholding the solid reputation Wilshire Associates has earned in the investment community. Wilshire has instituted and upheld an internal code of conduct, passed by our Board of Directors, for more than 20 years.

Wilshire's Chief Compliance Officer administers our compliance policies and procedures, and would be responsible for investigating and dealing with any potential violations of policies or procedures relating to conflicts of interest. The Chief Compliance Officer reports directly to the CEO and Wilshire's Board of Directors.

Wilshire requires all of its employees to comply with its Compliance Manual, Standards of Business Conduct and Code of Ethics, and any business unit's Code of Ethics. All employees are required to be familiar with all procedures and policies that are applicable to them and are subject to discipline for violations.

### 2. Describe your expertise in assisting clients in developing their own risk management procedures.

Wilshire's approach to risk management is to assist clients with the evaluation of risk at all pertinent levels, i.e., total fund, asset class and manager and to also assist in the implementation of risk monitoring policies and procedures. First and foremost, Wilshire recommends the implementation of a risk budget at the asset class level and, where feasible, at the total fund level. Wilshire assists our clients in evaluating and establishing risk budgets. This process generally takes one to two quarters as it is an interactive process which requires evaluating and stress testing the key factors which must be considered. There are several key factors which determine the optimal risk budget including, active vs. passive decision, optimal asset class benchmark, philosophy about the level of efficiency and the main drivers of risk in any market. Thus, the risk budgeting process is essentially a bottom-up process which begins at the asset class level and rolls up to the total fund.

***Total Fund Level***

Wilshire recommends clients evaluate the risk-adjusted returns at the total fund versus their respective policy benchmark in order to examine the success of the fund's investment strategies. The policy benchmark represents 100% passive index implementation. Results above or below that determine the effectiveness of actively managed mandates as well as the risk budget.

***Asset Class Level***

At the asset class level, Wilshire has developed multiple tools to assist in the evaluation of risk at this level. Style analysis within domestic and international public equities (size and style) and bonds (quality and duration) assist in the evaluation of bets away from the respective asset class benchmark. Relative risk analysis is another means of measuring whether value is being added for the level of risk being taken. Lastly, Wilshire's rolling skill analysis combines return and risk to determine whether risk taken within asset classes is rewarded and to what degree.

***Manager Level***

Wilshire analyzes manager risk from a macro perspective, considering two important portfolio level risks – style drift and changes in portfolio risk. We use two quantitative tools to aid us.

- The first tool is our style drift analysis, which compares security level characteristics aggregated to the portfolio level, over time and versus a benchmark.
- The second tool is a proprietary analysis of portfolio risk over time via rolling information ratios.

The purpose of a plan sponsor is to provide sufficient funds, via a combination of contributions and investment returns, to pay future benefit obligations. Thus, the key risk is investment shortfall versus the long term growth liabilities. The second key risk is the impact of cost on asset returns. The third key risk is failure to manage investment risk both at the total fund level and within asset classes.

Wilshire recommends that a fund structures their investment program to maximize return at a reasonable level of risk net of all costs and fees to implement that investment program. In our view, not meeting future benefit obligations represents true fund risk. Thus, risk is the probability of incurring, or increasing, the asset shortfall relative to future cash flow obligations. To minimize this risk, good estimates of capital market returns and risk are necessary inputs in order to arrive at the asset allocation objective which will have the highest probability of meeting fund obligations.

Cost management is the best means of managing the risk to returns. Utilizing low cost investment strategies (i.e., indexing and enhanced indexing), minimizing the number of managers, and utilization of performance-based fees are ways of addressing cost risk.

Investment risk can also be managed via implementation of risk controlled strategies, passive index funds, and strict guidelines controlling rebalancing parameters and the exposure to risks not deemed to be rewarded systematically over time, such as style and size risk in equities, interest rate risk in bonds, and market timing risk. In having control of all three of these risks, the sponsor is better able to meet their fiduciary obligation to the fund as this maximizes the potential for assets to meet future benefit obligations.

**Please include names of clients and briefly describe the projects for which you have provided these services.**

Specific examples of Wilshire Consulting's Risk Management Consulting are provided below (client names are not discloseable).

- Wilshire assisted a new client in implementing an initial risk budget for all its public and private asset classes as well as at the total fund level. We will also be assisting the client in developing an investment policy statement as well as risk monitoring standards in the implementation phase of this project. Additionally, we are working with the client's actuary on a comprehensive risk management project which involves reviewing their current benefit structure to determine the impact of potential alternative benefit structures and what asset allocation objectives may be appropriate to consider as a result. We will also be evaluating tactical risk mitigation strategies which will incorporate triggers or thresholds at which point the fund may de-risk in order to preserve capital in a particular market environment.
- Wilshire's risk budgeting strengths culminate in our ability to provide specialized reporting for plan sponsors: For example, Wilshire has provided a Factor Risk Report which provides a comprehensive measure of total fund risk, and can form the basis for an overall risk budgeting approach to investing. The information can be used as part of an on-going executive, risk management summary that assesses whether the entire program is being implemented as intended and within risk budgets, as well as identifies the main drivers of risk. Each asset classification, composite or sub-fund

structure can be evaluated in detail to understand the factor risk exposures and drivers of risk within the portfolio. The Allocation Risk Report provides an example of the ability to drill down into an asset class to assess multi-manager active and structural risks. Again, this report can be used to assess implementation and risk drivers for manager and structural risk budgets. It also enables the plan to identify unintended and potentially unmanaged risks within the fund.

**3. Is your firm, its parent, or any affiliate a registered investment adviser with the SEC under the Investment Advisers Act of 1940? If not, state your fiduciary classification.**

Wilshire is registered as an investment adviser with the SEC under the Investment Advisers Act of 1940. We are willing to assume fiduciary responsibility as an independent fiduciary. Our Form ADV Part IIA Brochure which includes Wilshire's Privacy Policy and Form ADV Part IIB Brochure Supplement is provided in the **Appendix, Tab 1**).

**4. Within the last five years, has your organization or an officer or principal been involved in litigations, SEC investigations, or other legal proceedings relating to your investment consulting assignments? If so, please provide an explanation and indicate the current status or disposition.**

In late 2003 and early 2004, a number of class actions were filed against mutual fund companies, relating to certain trading strategies. Subsequently, a number of traders and brokerage firms that executed trades were added as defendants to the class actions. In November 2004, Wilshire was added as a "trader" defendant in two of these actions known as the MFS Subtrack and the Alger Subtrack. Wilshire filed motions to dismiss both actions, and a ruling was issued in November 2005 granting in part and denying in part Wilshire's motions. Wilshire thereafter reached agreements to settle both cases, each settlement to be paid by Wilshire's insurance carrier. On October 25, 2010, the Court granted final approval of the settlements.

We do not track personal litigation of Wilshire employees. However, to the best of our knowledge, no principal, officer, or manager of Wilshire has pleaded guilty to, pleaded nolo contendere to, or been convicted of or indicted for any crime involving theft, veracity, truthfulness, conversion of property, fraud, identity theft or felony.

Beginning in 1995, a small number of Wilshire Consulting clients invested portions of their portfolios with Westridge Capital Management and its affiliates (collectively, "Westridge"). In 2009, Westridge and its principals were investigated and subsequently charged with the theft of client assets. One of Westridge's principals, Paul Greenwood, pleaded guilty to criminal charges and is awaiting sentencing. Another, Stephen Walsh, is awaiting trial. A court-appointed receiver is in the process of recovering and distributing assets to defrauded investors. In May of 2011, a client that had a portion of its portfolio invested in Westridge filed suit against Wilshire, alleging that Wilshire should be liable for a Westridge-caused loss. Wilshire believes the suit is unfounded and without merit and will be proven as such in a court of law.

In September 2003, the Securities and Exchange Commission commenced a broad investigation of the securities industry regarding short-term mutual fund trading. The SEC included Wilshire in the investigation in October 2003. In its letter of April 19, 2006, the SEC notified Wilshire that its investigation of Wilshire was terminated and no enforcement action was recommended.

In 2006 and 2007, Wilshire received subpoenas from the Department of Labor that encompassed substantially the same requests made by the Securities and Exchange Commission in 2003. In its letter of April 10, 2008, the DOL notified Wilshire that its investigation of Wilshire had been concluded and that no further action is contemplated.

**5. Has your firm ever been censured by any regulatory body? If so, please describe the situation.**

Wilshire formerly was a broker-dealer, member of the National Association of Securities Dealers and a member firm of the New York Stock Exchange. At the end of October 2004, Wilshire closed down its brokerage operation for business reasons, withdrew from the NYSE, and withdrew its Securities and Exchange Commission registration as a broker-dealer.

In connection with Wilshire's former brokerage business, Wilshire was sanctioned as follows:

In February 1989, Wilshire was fined $1,000 by the NYSE due to the fact that certain trade sides that Wilshire submitted to the NYSE for the weeks of 11/14/88 and 12/5/88 carried times of trade that were not within NYSE hours and / or had different trade dates than those kept within NYSE's chronological record of trading. Prompt corrective action was taken by Wilshire when apprised of the errors by the NYSE.

In July 1999, Wilshire was fined $2,000 by the NASD due to the fact that on several days sampled during 7/98-9/98, certain transactions and agency cross trades reported on the Automated Confirmation Transaction system were not accepted or rejected on a timely basis. Prompt corrective action was taken by Wilshire when apprised of the errors by the NASD.

In September 2003, Wilshire agreed to pay a fine of $50,000 to settle five administrative rules violations discovered during a routine examination in 2000. The

NYSE action dealt with registration of individuals as NYSE Allied Members, registration of one individual as a Series 7 representative, review of electronic communications of registered representatives, approval and review of employee related accounts and a notice of share offering to employees. Prompt corrective action was taken by Wilshire when apprised of the errors by the NYSE.

In March 2004, Wilshire was fined $3,000 for failing to timely report to the Order Audit Trail System 72% of all reportable order events during the time period April 16 to June 30, 2002, constituting violations of NASD Marketplace Rule 6955(a) and NASD Conduct Rule 2110. Prompt corrective action was taken by Wilshire when apprised of the errors the NASD.

## D Conflicts of Interest

### 1. Explain in detail any potential for conflict of interest that may be created by your firm's providing services to the Fund.

Wilshire receives a portion (35% in 2010) of its total revenues from the sale of analytics services that are provided by Wilshire Analytics, a separate business unit from Wilshire Consulting. A significant amount of Wilshire Analytics' business is generated from portfolio managers, including most, if not all, of the largest organizations in the investment industry. In addition, Wilshire has entered into a relationship with a company to offer the Wilshire Compass product to Canadian customers, including portfolio managers, analysts and marketing professionals. The Wilshire Consulting business unit has sold, and will continue to sell, Wilshire Compass to plan sponsors, foundations and other institutional investors. Numerous organizations that purchase or have purchased Wilshire Analytics solutions and services, Wilshire Compass, and/or formerly used Wilshire's former brokerage services are past, current and prospective portfolio managers of clients of Wilshire's Consulting and Funds Management business units. Wilshire sold its brokerage in 2004. Wilshire's Fund Management also receives compensation from investment managers or institutions that may also be recommended for plan sponsors. A conflict exists because the Wilshire Consulting and Wilshire Funds Management personnel may be advising clients to hire or fire these portfolio managers. A conflict would also exist if Wilshire Consulting or Wilshire Funds Management personnel make recommendations or decisions portfolio managers who have invested in a fund advised by Wilshire.

Because Wilshire provides a variety of advisory and other services through separate business units, a client of one business unit may seek an introduction to or information about the products or services of another Wilshire business unit. A conflict of interest would arise if Wilshire recommends its own products or services to an advisory client because Wilshire would benefit from both the advice and the client's purchase of products and services based on that advice.

Another area for potential conflict is between Wilshire Consulting and Wilshire Funds Management. Wilshire Funds Management provides discretionary and non-discretionary “manager-of-managers” services to certain investment managers, as well as outsourcing solutions to financial institutions, commingled funds, and mutual fund complexes. Wilshire Funds Management receives compensation for providing these services to investment managers or institutions that may also be recommended for plan sponsors. Wilshire Funds Management also prepares the initial, written manager research used by Wilshire Consulting in preparing Wilshire Consulting’s recommendations.

It is the policy of Wilshire Associates that recommendations of portfolio managers or custodians are based solely on the best interests of our clients. Furthermore, employees in Wilshire’s Consulting, Private Markets, and Funds Management business units do not have internal access to the amounts that those clients pay Wilshire Associates for Analytics solutions and services. However, it is possible that Wilshire personnel may become aware of this information as a result of disclosure by a client, from public sources or otherwise. Finally, Wilshire has adopted procedures to provide clients of Wilshire Consulting directly with information about revenues that we receive from managers and other financial services vendors.

**2. Does your firm or an affiliate manage money for clients?**

Wilshire does not engage in the activity of managing portfolios of individual securities.

Wilshire does provide investment management and advisory services through Wilshire Funds Management and Wilshire Private business units, which are separate from Wilshire Consulting.

Wilshire Funds Management provides discretionary outsourcing services in the fixed income, U.S. equity, and non-U.S. equity markets. Wilshire Private Markets provides institutional investors access to global private markets through portfolios that invest in venture capital, leveraged buyout and other alternative investment opportunities on a discretionary basis for those clients wishing to outsource this function.

**Include also whether your firm or its parent or an affiliate is a broker/dealer. Do you trade for your client accounts through your own broker/dealer? Does your firm accept soft dollars as a method of payment for services provided? Do you use soft dollars to make payment for services received? What percentage of your clients has soft dollar arrangements with your firm?**

Wilshire is not a broker / dealer. Wilshire does not accept soft dollars as a method of payment. Wilshire may accept payments from a client’s broker.

**3. Describe how conflicts of interest among your consulting functions are prevented if your firm also provides portfolio management or brokerage services, or if your firm also provides consulting services to investment management companies.**

It is the policy of Wilshire that all recommendations concerning investment managers made to investment consulting clients are based solely on the best interests of the client and without regard to any revenue that Wilshire receives, might receive, or has received in the past, directly or indirectly, from portfolio managers for services provided by us. Wilshire operates Wilshire Consulting, Wilshire Funds Management, Wilshire Private Markets, and Wilshire Analytics as separate business units. A conflict of interest arises when one business unit recommends the products or services of another business unit or when Wilshire recommends a third party (i.e., investment manager) that purchases products of services from Wilshire. For example, Funds Management and Wilshire Consulting make decisions about hiring, retaining, and terminating third party investment managers on behalf of clients. Wilshire Analytics receives revenues from sales of investment technology services to investment managers. A conflict of interest exists because decisions by Funds Management or Wilshire Consulting concerning investment managers could be influenced by the fact that Wilshire Analytics derives revenues from managers who purchase its investment technology services.

Wilshire has adopted policies and procedures designed to prevent personnel from the Consulting, Funds Management and Private Markets business units from having internal access to information about the amount of compensation that Wilshire receives from any Wilshire Analytics client. Additionally, the Wilshire Consulting and Wilshire Analytics business units are each prohibited from releasing information to other business units except as expressly authorized by the Business Unit Head of the releasing business unit. Notwithstanding these policies and procedures, it is possible that Wilshire personnel may become aware of information as a result of disclosure by a client, from public sources or otherwise.

Wilshire has also adopted policies and procedures to either provide or offer to provide each client and prospective client of the Wilshire Consulting and Funds Management business units with specific information about the amount that Wilshire bills and has billed for Wilshire's Analytics services and/or Wilshire Compass purchased during the current calendar year and the most recently completed calendar year from Wilshire by the client's or prospective client's portfolio managers, whether paid directly by the portfolio manager or by a third party ("Conflict Disclosure Information"). If requested by the client and to the extent that managers have consented, Wilshire’s Compliance Department will provide Conflict Disclosure Information directly to the prospective Consulting and Funds Management client. In addition, Wilshire’s Compliance Department will either provide or offer to provide Conflict Disclosure Information to Consulting and Funds Management clients at least annually, at other relevant times, and upon request.

Furthermore, Wilshire has adopted policies and procedures designed to prevent its Consulting and Funds Management personnel from gaining access to Conflict Disclosure Information.

In this regard, clients should be aware that Wilshire personnel in possession of the Conflict Disclosure Information may sometimes transfer from one Wilshire business unit to another. It is possible that a transferred employee may continue to perform certain services for their former business unit during a transition period. In these cases, the transferred employee will not be placed in a position to dictate or influence manager selections until six months following the termination of the transition period. In addition, Wilshire will notify clients from the employee's former business unit who continue to be serviced by the employee during the transition period.

Because Wilshire provides a variety of advisory and other services through separate business units, a client of one business unit may seek an introduction to or information about the products or services of another Wilshire business unit. A conflict of interest would arise if Wilshire recommends its own products or services to an advisory client because Wilshire would benefit from both the advice and the client’s purchase of products and services based on that advice. For example, a conflict would exist if Wilshire Consulting were to recommend an investment in a fund or investment vehicle managed or advised by the Funds Management or Private Markets business units. Wilshire has adopted the following procedures to address conflicts of interest in these situations.

If a client requests information from one Wilshire business unit about the products or services of another Wilshire business unit, the business unit receiving the request may arrange for an introduction to the appropriate person at the other business unit but may not market the other business unit’s products or services.

Although Wilshire’s Consulting may provide general asset allocation advice, Wilshire Consulting will not provide any investment advice regarding a client’s decision to invest in a product in which Wilshire is the adviser or sub-adviser, such as a Wilshire managed mutual fund, Wilshire hedge fund or funds offered by the Wilshire Private Markets group (each such fund a “Wilshire Fund”), with the exception of the Wilshire Solutions Funds Trust, which is offered by Wilshire Consulting. If a client selects a Wilshire Fund, Wilshire Consulting will not monitor the performance of a client’s investment in that fund (although Wilshire Consulting may transmit raw data to the client in the manner in which other raw data is transmitted regarding other funds or managers). When a client requests that Wilshire Consulting identify fund managers, it is Wilshire’s policy that the list be based solely on the client’s best interests. If a Wilshire Fund could be appropriately included in the Wilshire Consulting list based on such relevant factors as performance, management style, process and personnel, investment strategy, terms and the client’s individualized needs then Wilshire Consulting may include, but not recommend, the Wilshire Fund in the listing. Any

further information regarding the Wilshire Fund may be provided only by Wilshire's Funds Management or Private Markets business unit(s), as applicable. Furthermore, Wilshire will advise the client in writing, and the client will be asked to acknowledge in writing, that the Wilshire Consulting business unit cannot provide any further advice or recommendation regarding the Wilshire Fund. Further, Wilshire Consulting will not exercise any investment discretion to invest a client's assets in a Wilshire Fund. Wilshire does not link consulting fees to a client's decision to invest in a Wilshire Fund. In addition, employees of Wilshire Consulting will not be specially compensated based on a consulting client's decision to invest in a Wilshire Fund (although an employee who is also a shareholder may indirectly benefit).
With respect to the Wilshire Solution Funds Trust, Wilshire receives an investment management fee on the total assets invested in the Trust, but does not receive any additional consulting fee from client's with respect to those assets.

When a client requests that Funds Management perform manager selection services or provide a fund listing, it is Wilshire's policy that the list be based solely on the client's best interests. If a Wilshire Mutual Fund, another mutual fund advised by Wilshire Funds Management, or a Wilshire Private Markets fund could appropriately be included on the list, it may be included, but not recommended. If the list is being prepared by Wilshire Funds Management for delivery to a Wilshire Consulting client, Wilshire Consulting must advise the client that it cannot provide any further advice or recommendation as to such fund. Further, the client will be asked to acknowledge that Wilshire has not provided and will not provide investment advice within the meaning of the Employee Retirement Income Security Act of 1974 (ERISA).

With respect to Wilshire Private Markets, when investment opportunities are discovered by or brought to the attention of Private Markets (other than by or through a specific client when Private Markets determines in good faith that such opportunity would not otherwise have come to its attention in a timely manner) and which are appropriate for and allocable to more than one client, Private Markets uses reasonable efforts to assure that such opportunities are offered to, or allocated among, those clients on a basis which, over time, is fair and equitable, taking into account such factors as Private Markets, acting in good faith, believes are appropriate under the circumstances.

**4. Describe in detail all circumstances under which your firm or any individual in your firm receives compensation, finder's fees or any other benefit from investment managers or third parties, and list all investment management firms or third parties from which your firm has received any compensation within the last five years.**

Wilshire Consulting does not receive any direct or indirect fee compensation from managers for consulting services, conferences, access or inclusion in our manager database or manager searches. Wilshire Analytics does provide investment technology and security databases to institutional investors and investment managers to assist in money management, as previously noted in the response to Question D.1.

Upon Wilshire's receipt of the Fund's investment managers, Wilshire's Compliance Department will provide Conflict Disclosure Information directly to the Fund, under separate cover. In addition, Wilshire's Compliance Department will either provide or offer to provide Conflict Disclosure Information to Consulting and Funds Management clients at least annually, at other relevant times, and upon request.

## E Staff and Consultants in the Firm

### 1. How many investment consultants does your firm have?

Wilshire Consulting currently employs 26 consultants.

### 2. Discuss the ways you manage growth, including any limits to the client/consultant ratio.

We do not have a specific limit to the number of clients we intend to accept. We carefully review workloads to ensure that we do not overextend our consultants and to guarantee a high level of satisfaction to our current clients. With 26 consultants among 124 clients, Wilshire has one of the lowest clients to consultant ratios in the industry of 5 to 1.

Our growth is contingent upon our ability to attract and retain qualified investment professionals. Wilshire requires that its senior consultants possess fund sponsor experience, MBA or CFA designations, and / or investment management experience. With a senior consulting staff of highly trained and technically competent consultants, the Fund would always be covered by at least one senior investment consultant.

### 3. Describe your company philosophy for recruiting, hiring, and retaining senior personnel.

Wilshire Consulting retains senior personnel through growing consulting talent organically from within. Generally, we recruit senior associate and vice president candidates from the top business schools in the country with at least three years experience in the investment finance industry. These individuals are then paired with existing experienced senior consultants to gain the requisite experience and knowledge to eventually provide Wilshire's consulting services independently to existing and new clients. Occasionally, Wilshire will also recruit former plan sponsors (i.e., CIO's, corporate treasurers, etc.) and portfolio managers as senior consultants if we have need and the cultural fit is right. The important characteristic we emphasize in all our new hires is that these individuals be sufficiently adept at performing rigorous investment analysis and evaluation. By providing a solid career path to intelligent individuals and fostering a collegial, team environment, Wilshire has been very successful in retaining investment consulting talent. This is evidenced by our low turnover among senior consultants and one of the longest tenures in the consulting industry of many of our professionals.

### 4. Describe how consultants and analysts in your firm are compensated.

Wilshire Consulting uses a competitive base compensation package combined with revenue sharing, equity ownership in the firm, and an intellectually stimulating environment. These factors enable us to retain expert staff. Consultants receive compensation in two forms: base salary and annual bonus. The base salary is commensurate with industry standards and is increased based on merit. Merit involves the level and type of client served, and overall contribution to the business unit's efforts. The annual bonus is based entirely on client satisfaction and retention in the form of revenue sharing. Wilshire periodically offers its employees an opportunity to acquire equity ownership in the firm, enabling them to become shareholders. Because of Wilshire's organizational structure and business practice, equity ownership in Wilshire is a meaningful retention tool.

As described above, we provide our employees with the opportunity for equity ownership. However, that equity ownership has to mean something. The equity ownership has both a current income component and a capital appreciation component so that the equity provides immediate cash return that does not require the equity to be sold to realize or capture value. We also have employment agreements with non-compete clauses for our key employees that also disallow taking other employees with them when they leave. This requirement extends for two years.

### 5. List the turnover of consulting and research personnel in the last three years. State the reason of departure for each.

Below is a list of senior professional employee departures over the past three years at the Vice President-level and above within Wilshire Consulting.

| NAME | POSITION | DATE LEFT | REASON FOR LEAVING | REPLACED BY |
|---|---|---|---|---|
| *David Kraemer* | Vice President, Wilshire Compass | 2011 | Mutual Agreement | None* |
| *Todd Kniola* | Vice President, Wilshire Compass | 2010 | Mutual Agreement | None* |
| *Mike Tudor* | Vice President, Wilshire Compass | 2010 | Mutual Agreement | None* |
| *James Rice* | Vice President | 2009 | Personal | Karim Simplis |
| *Mark Williams* | Managing Director, Wilshire Compass | 2008 | Personal | None* |
| *John Lauer* | Managing | 2008 | Mutual Agreement | None* |

| | | | | |
|---|---|---|---|---|
| | Director, Wilshire Compass | | | |
| *Dimitry Mindlin* | Managing Director | 2008 | Personal | Stephen Marshall |

* While there was no direct replacement for these individuals, their client relationships were transferred to other consulting teams. If necessary, the capacities of these teams were expanded through new hires.

## F Consulting Team

**1. Provide name, title, home office location, and biography of the key individual(s) who would be directly responsible for providing consulting services to the Fund, including what year the individual joined your firm, current responsibilities, areas of expertise, experience, education, professional designations, and memberships. Detail their roles and the scope of their involvement for this assignment.**

Wilshire's philosophy is that client relationships are best served using a team approach, with specialized support provided by dedicated departments within Wilshire Consulting. The Fund will be served by a team of Wilshire professionals led by Andrew Junkin, CFA, CAIA. Andrew will be assisted by Thomas Toth, CFA, Managing Director. In this role, Tom will work closely with Andrew with respect to consulting services and advice provided to the Fund. They will maintain detailed knowledge of your fund and its investments, and they are available to assist with day to day communications, projects, and meetings. While any number of Wilshire professionals will work on various facets of the Fund's required services, Andrew and Tom will be the focal point for delivery of all services. Having several professionals assigned to the account ensures that they will be familiar with all client issues.

**Proposed Consultants**

**Andrew Junkin, CFA, CAIA, *Managing Director.*** Andrew Junkin, a Managing Director with Wilshire Associates, is a member of Wilshire Consulting. He is responsible for providing service to a variety of corporate and public retirement plans ranging in size from $100 million to over $200 billion.

Mr. Junkin joined Wilshire in 2005 to work with the firm's consulting clients. He has 17 years of investment experience with the last 15 years in the consulting industry. Prior to joining Wilshire, he was director of research and senior consultant at Asset Services Company where he provided advice to institutional investors. Mr. Junkin began his career as a financial consultant with Merrill Lynch in Oklahoma City. He earned a B.S. from Oklahoma City University, attended business school at the Price College of Business at the University of Oklahoma and earned his MBA from The Wharton School of the University of Pennsylvania. Mr. Junkin holds the Chartered Financial Analyst and Chartered Alternative Investment Analyst designations.

**Thomas Toth, CFA, *Managing Director*.** Tom Toth, a Managing Director with Wilshire Associates, is a member of Wilshire Consulting. He provides client service for a variety of pension, endowment, and foundation clients, working out of the Denver office. Mr. Toth currently sits on both the hedge fund and private equity committees, where he is responsible for the evaluation and monitoring of a variety of products in the alternative investment arena.

Mr. Toth joined Wilshire in 2004 and initially worked in Wilshire Consulting's Investment Research Group, where he was responsible for writing white papers on topics such as hedge funds, private equity, and infrastructure. Prior to joining Wilshire, Mr. Toth worked in New York for fixed-income asset manager, Fischer Francis Trees and Watts. Mr. Toth earned his B.A. from the University of California, San Diego and an MBA with a concentration in finance / capital markets from the USC Marshall School of Business. Mr. Toth also holds the Chartered Financial Analyst designation.

**Michael Schlachter, CFA, *Managing Director.*** Michael Schlachter, a Managing Director with Wilshire Associates, is a member of Wilshire Consulting. Mr. Schlachter has consulting experience with many types and sizes of investment funds, including corporate and public pension funds, endowments, and foundations. Mr. Schlachter was responsible for creating Wilshire's hedge fund research effort in 2001 and currently serves on Wilshire's Real Asset (Infrastructure, Timber, Commodities) and Emerging Managers manager research committees. He also created Wilshire's internal analyst training program.

Mr. Schlachter joined Wilshire in 1999 and has more than 15 years of industry experience. Previously, he worked for Goldman, Sachs & Co. first as a research analyst in the Medical Device and Hospital Services industries, and later as an equity and derivatives analyst and trader for an in-house investment fund. He earned his B.A. from Princeton University with a joint concentration in Economics and Politics as well as an M.B.A. with concentrations in finance, analytic finance and entrepreneurship and venture capital, from the University of Chicago Graduate School of Business. Mr. Schlachter also holds a Chartered Financial Analyst designation and is a member of the CFA Institute.

**Alexander Browning, *Senior Associate.*** Alexander Browning, a Senior Associate with Wilshire Associates, is a member of Wilshire Consulting. Mr. Browning began working on a consulting team in 2009, where he is now responsible for providing client service to the firm's pension, endowment and foundation clients and is a member of Wilshire Consulting's Real Assets Committee. Mr. Browning brings more than 11 years of experience in the financial services industry. His previous responsibilities were with Wilshire Consulting's Investment Research Group where he conducted research and co-authored papers in the fields of real assets, fixed income and general investment finance. Mr. Browning graduated from the USC

Marshall School of Business with a concentration in corporate and investment finance and earned a B.S. in Economics from the University of Oregon.

**Jerry Hsu, Senior *Associate*.** Jerry Hsu, a Senior Associate with Wilshire Associates, is a member of Wilshire Consulting. He provides analytical and client service support to consulting clients of Michael Schlachter and Andrew Junkin.
Mr. Hsu joined Wilshire in 2000. Prior to his time at Wilshire, he worked in Merrill Lynch's International Private Client Group as a client service associate. Mr. Hsu earned a B.A. from the University of Southern California.

**Catherine G. Trzeciak, CPA, *Senior Associate***
Catherine G. Trzeciak, a Senior Associate with Wilshire Associates, is a member of Wilshire Consulting. She provides client service to a variety of pension, endowment and foundation clients, working out of the firm's Pittsburgh office.

Ms. Trzeciak joined Wilshire in 2000 as a member of the Wilshire Compass client service team. She transitioned to the consulting team in 2009 and brings more than 10 years of industry experience. Ms. Trzeciak earned a B.S. from Robert Morris College and an M.B.A. from the University of Pittsburgh.

**Ting Yeh, *Senior Associate***
Ms. Ting Yeh, a Senior Associate with Wilshire Associates, is a member of Wilshire Consulting. Ms. Yeh provides client service to the firm's consulting clients, including corporate, public, and endowment funds.

Ms. Yeh joined Wilshire in 2003 and brings more than 11 years of industry experience. Prior to her time at Wilshire Consulting, Ms. Yeh was a member of Wilshire Funds Management where she provided support for client service and new business development. She also has worked in private wealth management at an investment management firm. Ms. Yeh earned a B.A. in Economics from the University of California at Berkeley.

**Alex Ford, *Senior Analyst*.** Alex joined Wilshire in 2008 and provides performance measurement data to consulting clients in support of Michael Schlachter and Andrew Junkin. Alex received a BSBA in Finance from the University of Colorado at Boulder.

**2. State whether the individuals assigned to the work have any responsibilities other than providing consulting services, and if so, specify such responsibilities.**

Wilshire consultants do not have any responsibilities outside of providing consulting services to their clients.

**3. What are the procedures for addressing this account when the lead consultant or other assigned personnel are unavailable?**

Wilshire consultants carry Blackberries and cell phones and are in constant communication with their office and clients. Further, Andrew Junkin's team has established an omnibus email alias: teamam@wilshire.com. Fund staff or Investment Committee members can email Wilshire and all members of the team. If the lead consultant is traveling, Tom Toth will ensure that requests are responded to in a timely fashion. If both Andrew Junkin and Tom Toth are traveling, Jerry Hsu, Senior Associate is responsible. Wilshire recognizes that by providing multiple layers of support, Wilshire can ensure that the Fund will be served.

**4. Describe your firm's backup procedures in the event that key personnel in this assignment should leave the firm.**

If the lead consultant should leave the firm, it is the duty of the back-up consultant to resume work on the account. Having several professionals assigned to the account ensures that they will be familiar with all client issues. Additionally, as President of Wilshire Consulting, Julia Bonafede backs-up all senior consultants.

## G Research

**1. Describe your firm's philosophy and resources, including history of experience in the following areas:**

- **Performance Evaluation and Reporting;**

The Performance Measurement Group works on a proprietary Wilshire developed Windows-based software application delivered through a UNIX server to staff PC's. All aspects of Wilshire's performance reporting are geared towards enabling both the consultant and the client to understand how portfolios are meeting the client's objectives, from both return and risk perspectives. In many cases, we are able to structure the reporting to also ensure the client's investment policy and manager guidelines are being met sufficiently. Examples of exhibits which enable us to assess risk are our holdings-based style map, fixed income quality breakdown, and non-U.S. equity country allocation analyses. We regularly utilize our Wilshire Compass system to evaluate client managers on multiple levels. Examples include our rolling skill and information ratio analyses, peer comparisons and fixed income style maps.

- **Asset Allocation;**

Industry research and our experience prove that the asset allocation decision has the greatest impact on a portfolio's long-term return and risk profile. Wilshire embraced this concept the 1970's when Wilshire became an early innovator in creating the industry's integrated asset/liability analysis/simulation models as well as the industry's practical models in risk budgeting through beta and active risk analysis. Since that time, Wilshire has added to its asset allocation credentials by performing thousands of asset allocation studies and continually evaluating and enhancing our methodology.

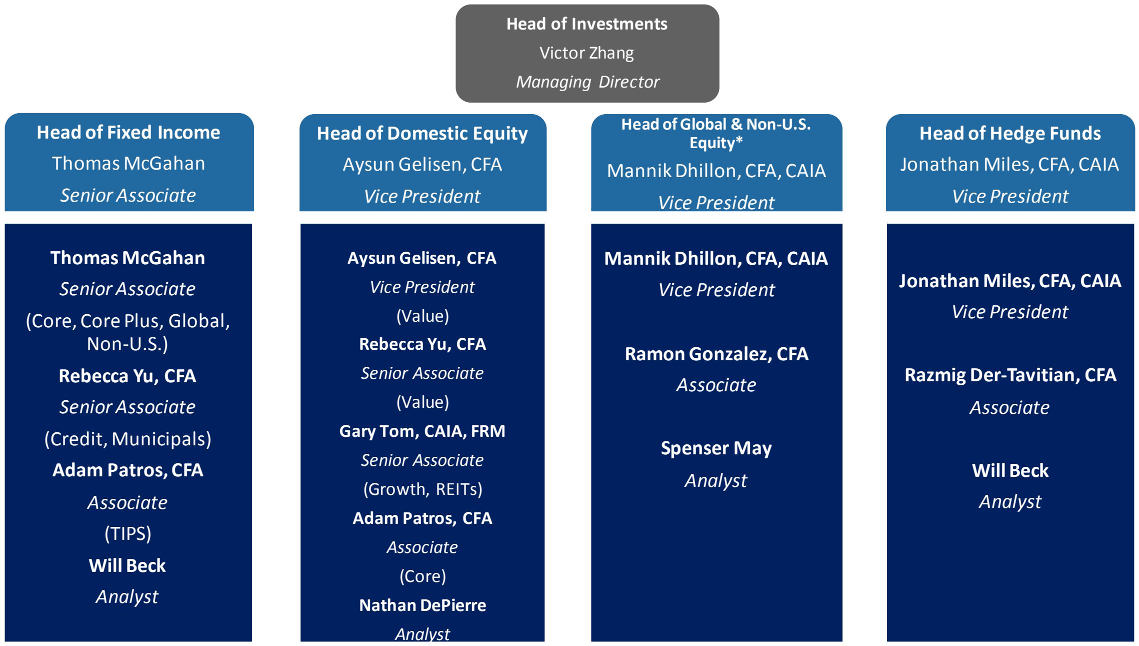
Wilshire continues this tradition by offering a new approach to asset / liability modeling that incorporates the plan's benefit stream (liability) directly. This innovative approach is based on the dual objective that the role of the policy portfolio is to maximize the safety of benefits and help minimize cost. Additionally, we simultaneously minimize the long-term costs at an acceptable level of risk.

- **Investment Policy;**

Investment policy and guidelines are integral to all aspects of Wilshire's investment consulting services. The process begins with asset allocation and the inherent asset / liability evaluation, moves through developing an investment structure and choosing appropriate managers, and finally evaluates the whole program through our performance monitoring program. The development of the policy is an interactive process between the organization's management / trustees and the consultant.

- **Manager Search (by asset class);**

Victor Zhang, Managing Director in Wilshire Funds Management, provides management oversight to Wilshire's Manager Research Group and plays a lead role in directing the team's support to Consulting projects. The following is a list of the product specialists and their respective research coverage.




** Includes Listed Real Assets*
*Asset class assignments effective 6/15/2011, and are subject to change without notice.*

| | |
|---|---|
| ***Private Equities and Debt (Fund of Funds)*** | Jim Neill<br>Tom Toth |
| ***Real Assets (Commodities, Timber, Infrastructure, Private Real Estate, etc.)*** | Mannik Dhillon<br>Mike Dudkowski<br>Mike Rush<br>Alex Browning |

After all products under consideration have been given a preliminary score by Wilshire's Manager Research Group, Wilshire consultants become actively involved in the process through Product Review Committees. Wilshire consultants' experience specifically contributes to the manager research process. The Product Review Committee is made up of at least three senior consulting professionals and their role is to interview the top manager candidates and assign final product rankings. The product evaluations and rankings are used by all Wilshire consultants to assist clients in the selection of new products and the evaluation of existing products. Product Review Committees are detailed on the following page:

**Traditional Asset Classes**

| Large Cap Core | Large Cap Value | Large Cap Growth | Core Fixed Income |
|---|---|---|---|
| Marlin Pease, MD*<br>Howard Yata, MD<br>Chris Tessman, VP | Mike Rush, VP*<br>Karyn Williams, MD<br>Howard Yata, MD | Mike Rush, VP*<br>Bill Bensur, MD<br>Karyn Williams, MD<br>Felicia Bennett, MD | Amy Hemphill, VP*<br>Julia Bonafede, Pres.<br>Eileen Neill, MD<br>Charley Stunkard, MD |
| **Non-U.S. Equity / Emerging Markets** | **Small / Mid Cap Value** | **Small / Mid Cap Growth** | **Specialty Fixed Income** |
| Andrew Junkin, MD*<br>Julia Bonafede, Pres.<br>Steve Foresti, MD | Mike Dudkowski, MD*<br>Mark Brubaker, MD<br>Steve Foresti, MD | Amy Hemphill, VP*<br>Mark Brubaker, MD<br>Marlin Pease, MD | Joe Dressel, SA*<br>David Lindberg, MD<br>Eileen Neill, MD |

**Alternative Investments**

| Real Estate | Natural Resources / Other Real Assets | Private Equity | Hedge Funds |
|---|---|---|---|
| Mike Dudkowski, MD*<br>Felicia Bennett, MD<br>Mike Rush, VP | Michael Schlachter, MD*<br>Alex Browning, SA<br>Todd Douds, SA | Jim Neill, MD*<br>Tom Toth, MD<br>Michael Patalsky, VP<br>Karim Simplis, SA | Karim Simplis, SA*<br>Maggie Ralbovsky, MD<br>Tom Toth, MD<br>Karyn Williams, Ph.D.<br>Joe Dressel, SA |

**Specialty Categories**

| Transition Management | Defined Contribution | Emerging Managers |
|---|---|---|
| Michael Patalsky, VP*<br>Joe Dressel, SA | Michael Patalsky, VP*<br>Felicia Bennett, MD<br>Eileen Neill, MD<br>Maggie Ralbovsky, MD<br>Russ Walker, VP | Andrew Junkin, MD*<br>Michael Schlachter, MD<br>Mark Brubaker, MD |

*Committee Leader
MD = Managing Director
VP = Vice President
SA = Senior Associate

In addition, Wilshire maintains a dedicated position within our Investment Research Group that is focused on manager research issues. We have found this position to be invaluable in consistently communicating the information flow from our manager research analysts through to our consulting teams and in helping to ensure that the insights from our manager research efforts are most effectively utilized within our general capital markets research.

- **Research**

Wilshire's consulting approach centers on investment research. We have a full-time dedicated investment research group whose objective is to work with consultants and clients to fully evaluate investment ideas, strategies and products under consideration to ensure there is a sustained and consistent investment thesis. There must be a coherent empirical and theoretical premise underlying any strategy or product being recommended to clients. We can only ascertain this through deep, thorough research by experienced personnel using Wilshire's powerful proprietary analytical tools.

**2. Describe the internal structure and organization of your research department. If no separate department exists, describe how this function is performed.**

Wilshire Consulting's Research Group is comprised of our Asset Allocation Group and Investment Research Group. The Asset Allocation Group focuses on developing and maintaining Wilshire's proprietary asset / liability models, while the Investment Research Group performs in depth analysis of all aspects of an institutional investment program, including, for example, capital and alternative market research, investment structure research and industry analysis.

Under a single research platform, the merging of our Asset Allocation Group and Investment Research Group ensures the collaboration of distinct, yet complimentary areas of Wilshire's consulting focus. This uniform structure maximizes the research input of Wilshire's lead actuary, who is critical in assisting on research issues pertaining both directly and indirectly to asset allocation issues.

Wilshire Consulting's Research Group has a distinct structure that combines the efforts of dedicated independent researchers (independent of client service responsibilities) and senior consultants, who ensure client advocacy and the direction of research work toward germane subjects that are of particular interest to our clients.

Wilshire Consulting's Research Group also benefits from the direct contributions of Julia Bonafede, President of Wilshire Consulting. Julia's personal involvement solidifies Wilshire's research commitment and ensures that the effort continues to receive high level priority. To ensure relevancy, senior consultants participate on an ad hoc basis. Since the consultants' primary responsibility is serving their clients, the rotating nature of their participation in research ensures that they can satisfy their primary objective. However, since client issues often are the genesis for research ideas, the senior consultants are instrumental in bringing those issues forward and seeing that the attendant research contains practical recommendations and is carried through to completion.

While many research topics are the direct result of client feedback and discussion, Wilshire Consulting's Research Group routinely pursues interesting ideas to enable Wilshire to remain a thought leader in the industry. We find that the combination of independent research, coupled with client-driven advocacy through consultant involvement in the research process, ensures an end product that is focused on relevant challenges facing Wilshire's consulting clients.

**3. Describe the manner in which external resources and sources of information are used in the research process. How does your firm integrate internal and external research?**

Wilshire relies almost entirely upon internal resources for its research efforts. Only daily stock and bond pricing data and quarterly financial statement information (for example; IDC and WorldScope) are accessed through outside vendors. Indeed, a significant portion of Wilshire's business is providing research and analysis to other organizations. Wilshire also actively monitors publicly distributed research (from investment managers, academics, industry trade groups, government agencies, etc.) and subscribes to major research publications to keep abreast of leading industry research.

We believe we have one of the most extensive information and technology resources among all consulting firms. Our security databases cover over 7,000 U.S. stocks, 12,000 non-U.S. stocks, and all publicly-traded bonds. These databases, in some instances, include monthly information going back 25 years and daily information for over 10 years. This allows us to back test investment strategies extensively.

Wilshire has internally developed most of the modern investment technology in use in the industry today. In many instances, this technology was originated by Wilshire. A sample includes:

- Asset / liability model
- Index Fund Systems
- Bond Dedication System
- Portfolio Optimization
- Portfolio Insurance Model
- Performance Measurement
- Manager Screening
- Pension Surplus Optimization
- FASB Projection Model
- Currency Hedging Model
- Futures Valuation Model
- Wilshire 5000 Total Market Index℠

Wilshire generally uses external sources as a guide to formulate research questions and then our consultants and research staff endeavor to conduct independent internal reviews. Wilshire uses internal databases (e.g. Wilshire Compass, which includes historical data on a vast number of indices and in excess of 7,000 investment products, mutual funds, and manager returns) and systems to come up with conclusions that we deliver to clients. All throughout our research process we verify and compare outside research results to our independent conclusions in order to come up with the most conclusive analysis possible.

Further, senior members of our research and consulting teams are frequent speakers, panelists and advisory board members at industry conferences. These venues serve as ideal settings to share research and perspective with our peers across the investment community.

The foundation of analyzing, monitoring, and reporting on investment opportunities lies in the breadth and quality of a firm's database and risk management tools. Wilshire invests several hundred thousand dollars each year in databases from leading providers in the industry. In addition, Wilshire has developed many of the widely used market indices from this database (e.g. Wilshire 5000 Total Market Index$^{SM}$) that others follow today. Wilshire participates in select domestic and international institutional investor conferences with an educational objective. Wilshire also subscribes to the Spencer reports, which provide frequent, regular updates regarding pension legislation and ERISA-related issues for defined benefit and defined contribution plans.

The non-U.S. marketplace has shown more and more interest in Wilshire's capabilities and products. This has led to our expansion of operations to London, Amsterdam, Canberra, Melbourne, Singapore, and Tokyo. The cross-fertilization of consulting and our analytics products further enhances our reporting and tracking capabilities of global trends and influences.

Once a new trend or influence has been identified and researched, Wilshire's research results are circulated to clients and consultants through our "white papers". In addition, Wilshire distributes research on industry and market trends in three types of regularly scheduled reports, namely, monthly and quarterly Wilshire *Perspectives* and our annual Asset Allocation Report. These reports are sent to our clients and are available electronically by email and on our website.

### 4. Describe the type, subject matter, and frequency of research provided to clients, and provide an example.

The Investment Research Group generates research reports for Wilshire clients in the following four major category types:

***Asset Class and Investment Strategy "White Papers"***

Wilshire prepares a research report for its clients at the beginning of every year describing its recommended long term asset class return and risk assumptions for all recognized asset classes. The report describes in detail how Wilshire generates the assumptions used in all of our asset allocation studies. This asset allocation report is a perennial favorite among Wilshire clients and others. A full analysis of Wilshire's asset class assumptions can be found in our 2011 Asset Allocation Report, which is provided in the **Appendix, Tab 2**. Throughout the year, Wilshire produces white papers which are focused on particular asset classes and investment themes. These reports are designed to provide educational and historical background, assess return and risk potential, examine structural trends in the asset class, and present actionable recommendations that consider implementation issues. White papers are sent electronically on an ongoing basis to clients as part of the overall relationship and are often generated as the result of specific client needs and / or in response to new trends in the industry. Wilshire strives to produce at least six topical research reports a year.

***Market / Economic Reviews***

Wilshire distributes a monthly Wilshire *Perspectives* newsletter, which contains major market index returns for all pertinent time periods in a tabular format. During the first week of each quarter, a quarterly Wilshire *Perspectives* is published, which includes a market commentary from our Investment Research Group. The goal of our Capital Markets Review is to outline recent and long-term market activity and results. Wilshire's Manager Research Group also provides a quarterly review of the most significant investment manager developments of the recently ended quarter. The monthly and quarterly Wilshire *Perspectives* newsletters are made available to clients electronically via email and through our website. The most recent monthly and quarterly Wilshire *Perspectives* are provided in the **Appendix, Tab 3**.

***Topical / Event Driven***

Wilshire Consulting's Investment Research Group closely monitors activities within the capital markets and issues research notes on material events which are pertinent to our clients' investments. All event driven research notes are focused on providing sufficient background and information, in a timely and easy to read manner, to assist Wilshire clients in determining an appropriate response to important industry events. As with all investment research reports, these publications are made available to Wilshire's consulting clients electronically via email and through our website.

***Industry Trends***

Each year, Wilshire produces three surveys on pension plan funding levels: one for States, one for Cities and Counties, and a third for Corporations. These reports are extremely popular with Wilshire clients as they serve as useful measures of how individual plans compare with their peers. Wilshire's funding reports have become a widely referenced source for researchers in both the private and public sectors.

*Internet*
Clients also have access to an extensive database of Wilshire research papers through a password-protected area of our website. This database is searchable by topic and keyword, allowing clients to find the paper that best suits their needs.

*Client Seminars*
Annually, Wilshire Consulting holds a client seminar where a major portion of our latest research is presented. We encourage all clients to attend our client seminar to

find out more about the issues facing the fund sponsor community. No external sources are used at this client seminar.

*Client Education*
Wilshire believes first and foremost that our role is an extension of our clients' internal staff and as a resource to our clients' Boards and Committees. As such, we have always emphasized fiduciary education as the primary means of enabling our clients, as fiduciaries, to build sound investment processes and make efficient and appropriate investment decisions.

We believe we have one of the deepest investment research capabilities amongst our peers, as we have always maintained a dedicated capital markets and actuarial research effort. We have only broadened this research effort in recent years in recognition of the many more investment opportunities and decisions facing our plan sponsor clients given the increased breadth of strategies and asset classes. As we only work with clients on a retainer basis, we expect to be retained through the long term so that we, and our clients, will be able to measure the efficacy of our advice. Thus, we are very focused on ensuring our clients understand all facets of the decisions they are making so that everyone will be satisfied with the ultimate outcome. This is only achieved through regular education and communication. Wilshire has provided educational sessions to its clients on a number of topics, including: Financial Futures, Fixed Income Strategy, International Investing, Performance Fees, Securities Lending, Strategic Asset Allocation and Tactical Asset Allocation. All of these sessions have been geared to assist a busy committee and internal staff in learning about emerging and complex investment issues.

*Analytic Resources*
Wilshire offers clients Wilshire Compass, which is a PC-based executive information and consulting tool. Wilshire Compass combines comprehensive databases with sophisticated investment technology to assist the fund sponsor in developing investment policies, evaluating and implementing investment strategies and monitoring the investment program. The analytic system is designed to address all levels of fund analysis including asset allocation, manager team analysis, style risk management, manager selection and performance evaluation and monitoring. This is a separate service and is not included in the General Consulting retainer fee, if clients wish, they can subscribe to Wilshire Compass separately.

**5. Describe your ability to provide customized computer-based analytical tools to your clients. Please describe features.**

We take full advantage of Wilshire's stature as a leading provider of analytical solutions to the investment industry. These products include Wilshire Consulting's Wilshire Compass, and Wilshire Analytics' Wilshire Atlas^SM, Wilshire Axiom^SM, and Wilshire Abacus^SM.

Our technological capabilities, combined with the experience and skills of our consulting staff, enable us to assist clients with almost any investment issue imaginable. Wilshire builds all its own software using Java, Microsoft SQL, Windows C/C++ with C-tree database, which it can control and customize in order to meet clients' needs. Below is a listing of primary technology and capabilities used to support the efforts of Wilshire Consulting.

*The Performance Measurement Group* works on a proprietary Wilshire developed Windows-based software application delivered through a UNIX server to staff PC's. Wilshire's proprietary performance measurement software systems combine the latest innovations in performance attribution analysis with Graphical User Interface (GUI) technology to yield a self-contained, highly flexible, fully networkable reporting software package. The system is updated on an as needed basis, with periodic major overhauls about every five years. No portion of performance production work is subcontracted to an outside entity. Clients can access and print out completed performance measurement exhibits and reports through the Internet by accessing Wilshire's home page and using client password protection. Client reports are customized to report on specific client portfolios with comparison to selected indexes and universes.

*Wilshire Compass* is a Windows-based application that provides clients with analytical tools to evaluate managers, investment structures, and asset allocations, as well as access the Wilshire research. Wilshire Compass clients can receive updates to their software, which includes extensive manager and index databases, via the Internet. Wilshire Compass is a desktop multi-tiered visual basic application with SQL Server 2000 as its database engine. Wilshire's consultants use these products daily in conduction analyses for their clients.

*Wilshire's extensive databases,* which are centrally managed, are also frequently used by Wilshire Consulting. This includes securities pricing and fundamental characteristics for equities, fixed income, and real estate and other assets. This is data that Wilshire receives from a variety of external sources, and then monitors and warehouses centrally on a server for access and use by the various systems and services delivered by Wilshire. Other databases maintained are index and manager universe information, used principally for Wilshire Compass and the performance measurement system.

Wilshire Analytics provides investment firms worldwide with multi-asset class solutions for analytics, attribution, risk management, performance, GIPS® reporting, total fund reporting, style and peer universe comparisons.

*Wilshire Abacus*[SM] is a comprehensive multi-currency GIPS-compliant performance measurement system. It supports the full range of investment instruments and, due to Wilshire Abacus' flexible underlying architecture, can be modified easily to support new instruments. A flexible text and graphical custom report writer enables generation of holdings, transaction, and performance reports.

*Wilshire Atlas*[SM] provides an integrated collection of tools to manage and analyze global equity portfolios for both active and passive strategies. Its large historical database of pricing and fundamentals for over 75,000 U. S. and international securities provides a foundation for daily performance attribution, risk analysis, portfolio construction, and optimization. Additionally, Wilshire Atlas' index fund maintenance tools allow full benchmark replication, stratified sampling techniques, tilt fund strategies, and tax-efficient trading strategies, and supports rebalancing as often as daily.

*Wilshire Axiom*[SM] provides a complete set of applications for managing risk and enhancing returns and analyzing the impact of portfolio construction on risk and return in global fixed income portfolios. It allows users to analyze portfolio risk and performance in a multi-factor risk model framework. Wilshire Axiom is a powerful portfolio optimization tool; along with standard indexation, immunization and dedication strategies, users can use interest rate forecasts to create portfolios with optimal projected performance. Liability and cash flow analyses are also available.

Wilshire Atlas[SM] (U.S. and non-U.S. equity), and Wilshire Axiom[SM] (U.S. and non-U.S. fixed Income), are used extensively for complex analysis on equity and fixed income portfolios. Wilshire Consulting uses and incorporates into its own services, particularly through Wilshire Compass and the Performance Measurement system, the analytical tools developed on Wilshire Atlas[SM] and Wilshire Axiom[SM] for fixed income and equity analytics.

*Wilshire iQuantum*[SM] is an integrated performance measurement, performance attribution and risk management solution for multi-currency, multi-asset class portfolios. Wilshire iQuantum is built on the foundation of more than three decades of Wilshire's sophisticated analytical models to provide the most robust attribution and risk analytics in the investment industry. Wilshire iQuantum assists firms with portfolio analysis, management and reporting.

*Wilshire Risk Management Consulting* - Since the inception of our Consulting practice nearly 30 years ago, Wilshire has worked with clients to identify risks that will not be systematically rewarded and to implement structures that help minimize or eliminate those risks. Very few organizations are structured to combine plan sponsor know-how, analytical expertise and technical systems – essential elements required to support plan sponsor risk management. Wilshire's ability to leverage these resources puts us in a unique position to define best practices.

Wilshire also has a website (www.wilshire.com) where clients can access research reports (i.e. Wilshire *Perspectives*), Wilshire index performance and composition, and

Wilshire Compass downloads. Furthermore, Wilshire offers clients the ability to access historical monthly and quarterly performance reports through a fund-specific password-protected area of our website.

All aspects of Wilshire Consulting capabilities are provided to clients through the consultants as part of our full retainer fee. This includes manager research databases, index performance, etc. If a client wants to work directly with specific tools such as Wilshire Compass or Wilshire Atlas$^{SM}$ (equity portfolio global risk analysis), this can be incorporated into our service fee offer.

### 6. List any relevant research papers written by your firm.

The following table lists research papers that Wilshire Consulting has provided to its clients in the last three years.

| DATE | PUBLICATION TITLE |
|---|---|
| August 2011 | Investing in MLPs |
| August 2011 | 2011 Market Sell-off |
| July 2011 | Manager Research Due Diligence Process |
| March 2011 | Municipal Bonds: Historical, Current & Future Perspective |
| January 2011 | Target Date Funds: The Current Marketplace |
| December 2010 | Inflation In-Depth |
| October 2010 | Defined Contribution Plan Notes: Longevity Risk, Annuities and Lifetime Income Products |
| October 2010 | Yield Environment in Perspective |
| September 2010 | Fixed Income Structure: High Yield and Core versus Core-Plus Mandates |
| August 2010 | Opportunistic Investing |
| August 2010 | Stable Value 2010 Marketplace |
| April 2010 | 2009 Analysis of U.S. Markets |
| April 2010 | 2010 Report on Corporate Pension Funding Levels |
| March 2010 | Benchmarking Private Investments: Assessing Performance Despite Index Imprecision |
| March 2010 | 2010 Wilshire Report on State Retirement Systems |
| February 2010 | Risk-Focused Diversification |
| January 2010 | 2010 Asset Allocation Return and Risk Assumptions |
| October 2009 | Wilshire Historical Investment Performance (WHIP) Score |
| September 2009 | 2009 Wilshire Report on City & County Retirement Systems |
| August 2009 | PPIP Brief |
| July 2009 | 2009 Mid-Year Asset Class Assumptions Update |
| July 2009 | Use of Leverage in Investment Portfolio |
| July 2009 | 2008 Analysis of U.S. Markets |
| June 2009 | Emerging Markets Debt Part II: Opportunity Set and Implementation |

| | |
|---|---|
| May 2009 | Implications of Return Non-normality on Asset Allocation |
| May 2009 | SOS - TARP, TALF, PPIP, BAB |
| May 2009 | Emerging Markets Debt: Part 1 - Introduction to the Asset Class |
| March 2009 | 2009 Wilshire Report on State Retirement Systems |
| January 2009 | 2009 Asset Allocation Return and Risk Assumptions |
| January 2009 | U.S. Government Activity in 2008-09 and Long Bonds |
| October 2008 | 2008 Stock Market Sell-off: Steeper than the Average Bear? |
| October 2008 | Credit Crisis Events of 2008 |
| October 2008 | Frontier Emerging Markets |
| September 2008 | 2008 Wilshire Report on City & County Retirement Systems |
| June 2008 | Commodities Market Price Spike: Are Index Investors to Blame? |
| June 2008 | 2007 Analysis of US Markets |
| April 2008 | Examining the Home Country Bias |
| April 2008 | 2008 Report on Corporate Pension Funding Levels |
| March 2008 | 2008 Wilshire Report on State Retirement Systems |
| February 2008 | Non-U.S. Equity Investment Structure |
| February 2008 | 2007 Defined Contribution Plan Survey |
| January 2008 | 2008 Asset Allocation Return and Risk Assumptions |

## H Asset Allocation

**1. Discuss the theory, methodology, and process your firm uses in determining the investment strategy and asset allocation. Please include information about the asset allocation models your firm employs and a brief explanation of how you develop asset class assumptions.**

We believe that strategic asset allocation is the key to a successful investment program. Industry research and our experience prove that the asset allocation decision has the greatest impact on a portfolio's long-term return and risk profile. Wilshire embraced this important concept the 1970's when Wilshire became an early innovator in creating the industry's integrated asset/liability analysis/simulation models. Since that time, Wilshire has added to its asset allocation credentials by performing thousands of asset allocation studies and continually evaluating and enhancing our methodology.

Wilshire has continued this tradition by now offering a new approach to asset / liability modeling, which we call "Cost / Risk Optimization". This innovative approach is based on the dual objective of maximizing the safety of benefits at a given level of resources while simultaneously minimizing the long-term costs at an acceptable level of risk. Risk is defined differently for specific investor objectives, and our approach explicitly minimizes the risk that is important to the fund. Our approach incorporates the best interests of the plan participants, taxpayers, and other stakeholders.

Wilshire utilizes proprietary optimization methodologies (as well as existing ones, such as mean-variance and surplus optimization) to select a comprehensive set of efficient policy portfolios. A stochastic simulation program illustrates the impact of the policy portfolio choice on funded levels, unfunded liabilities, and required resources. These simulations are based on forward-looking expectations (return, risk and correlations) for the major asset classes as projected by Wilshire's annual asset allocation study. The model simultaneously projects assets, actuarial liabilities, resources / revenues and benefits consistent with the plan's actuarial and capital market assumptions for as many years as needed.

The optimal policy portfolio is a function of the client's current financial condition, tolerance for various risks, overall investment objectives, liquidity needs, applicable legal constraints, unique considerations with respect to plan design or participants, and the capital market opportunities available to the client.

## The Decision Process

The following diagram depicts a four-step process that Wilshire uses for recommending an allocation policy.

**Step 1: Capital Markets Research**
1. Annual capital market assumptions review
2. Historical and forward-looking analysis
3. Traditional and non-traditional asset classes

**Step 2: Liability Analysis**
1. Liability – the stream of benefit payments on the plan's design and population
2. Volatility of the benefit stream
3. Projected actuarial and accounting liabilities

**Step 3: Asset / Liability Optimization**
1. Proprietary models – safer benefits at lower cost
2. Traditional optimization methods (mean-variance and surplus optimization)

**Step 4: Optimal Policy Portfolio**
1. Stochastic simulation of selected policy portfolios
2. Optimal likelihood of shortfall
3. Optimal level of contributions
4. Optimal volatility of components of actuarial and accounting reports
5. Optimal asset side characteristics

Wilshire consultants work with each client to identify the opportunity set of asset classes to be considered and alternative portfolios that best meet long-term goals while minimizing short-term risks. After selecting the optimal policy portfolio, Wilshire prepares a written asset allocation policy that includes target allocations as well as a plan for ongoing "rebalancing" of assets to the target asset allocation.

### *Step 1: Capital Markets Research*

Wilshire believes that the quality of asset class assumptions for return and risk is as important as the sophistication of its asset allocation technology. Clients comment favorably upon the intellectual process Wilshire uses to forecast asset class expected returns, risk, and correlations.

Wilshire uses forward-looking valuation models that capture market consensus expectations rather than relying solely on the common practice of extrapolating past performance to project future performance. For example, a dividend discount model used to forecast stock returns and Treasury Inflation Protection Security ("TIPS") yields are compared to traditional Treasury yields to forecast inflation. Wilshire published a paper in The Journal of Portfolio Management (1997) describing a unique method for forecasting returns and risk on alternative investments. This is particularly important because most practitioners overstate returns and understate risk on alternative investments. Wilshire prepares a research report for its clients at the beginning of every year describing its recommended long-term asset class return and risk assumptions for all the asset classes. A copy of our 2011 Asset Allocation Report is included in the **Appendix, Tab 2**.

***Step 2: Liability Analysis***

Wilshire's Commitment Driven Investing (CDI) model focuses on the true liability of the plan – the stream of benefit payments promised to plan participants. The structure of the liability is at the front and center of the analysis. In order to develop the stream of benefit payments, Wilshire relies on long-term demographic assumptions developed by the plan's actuary for the purposes of the annual actuarial valuation. Wilshire's objective is to expand the work your actuary has already performed by including the volatility of the liability and incorporate the resulting object ("the pension commitment") into the asset allocation framework. As a result, the model presents an internally consistent approach to both actuarial and asset allocation work.

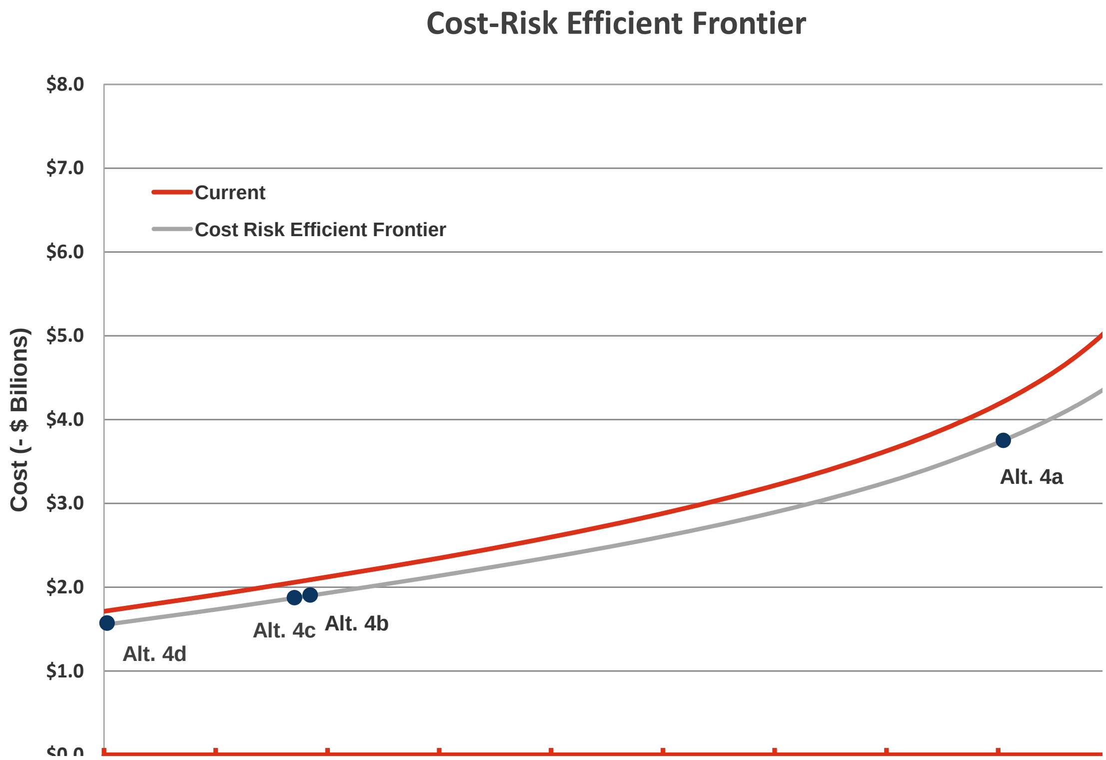
The plan has made a commitment to provide retirement benefits to plan participants. The goal of the plan sponsor is to fund the pension commitment – the stream of benefit payments determined by the plan's population and benefit package. The volatility of the benefit stream is, for the most part, caused by inflation. The plan's actuary usually provides a point estimate for each payment in the stream (otherwise, Wilshire uses its proprietary models to do so). Then Wilshire analyzes the volatility of the stream and incorporates potential benefit improvements, if any. Given the inflation-related nature of the volatility of the benefit stream, it is critical to ensure that our modeling of inflation impacts the asset and liability sides in a consistent manner. The augmented benefit stream is one of the cornerstones of Wilshire's asset / liability optimization model.

The actuarial and accounting liabilities are important, as well. Starting with the plan's demographic characteristics at the present, Wilshire models future actuarial and accounting liabilities by moving the existing population forward, utilizing the demographic assumptions provided by the actuary. Future entrants usually replace the plan participants who leave active status. Wilshire's models can incorporate growing or declining active populations as well. As a result, Wilshire generates a series of actuarial and accounting liabilities for as many years as needed. Some of those liabilities are modeled in a deterministic way, while others are modeled in a stochastic way in order to stay consistent with certain bond portfolios on the asset side. All these liabilities are subsequently used in stochastic simulations of the plan's reporting condition.

***Step 3: Asset / Liability Optimization***

Optimization procedures are at the heart of the portfolio selection process. Wilshire has extensive experience in dealing with traditional portfolio optimization methodologies such as mean-variance and surplus optimizations. We realize that mean-variance optimization is still popular among many plan sponsors; surplus optimization has gained some popularity lately as well. Consequently, these methodologies are readily available for our clients. However, we believe that Wilshire's optimization technique is a superior approach as it is directly related to the plan's core business.

The following principles are the foundation of Wilshire's approach to asset / liability optimization: 1) The core business of a pension plan is to fund the pensions promised to participants; 2) The primary risk to the core business is to run out of money before the plan has met the terms of its commitments; 3) The role of the policy portfolio is to manage the riskiness of the plan's core business.



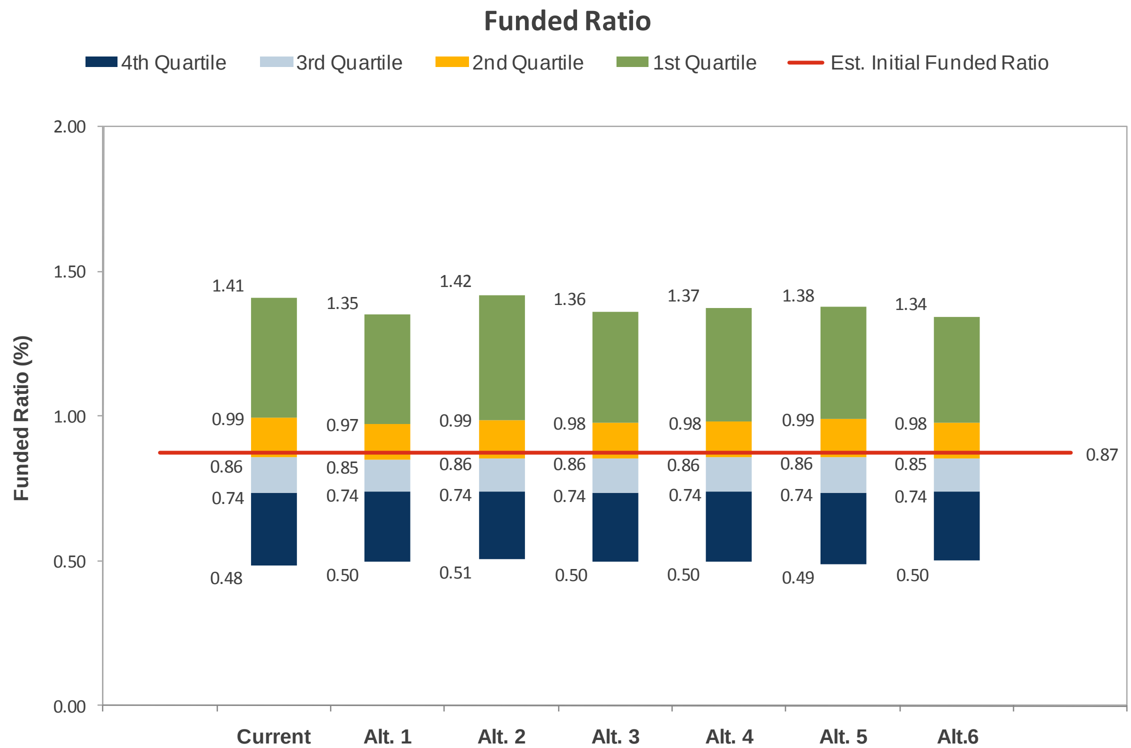

This recognition implies two objectives for the optimal policy portfolio. First, for every level of future contributions, it is desirable to produce the policy portfolio that maximizes the likelihood that this level of contributions is sufficient to fund promised benefits. In this case, it is in the best interests of the plan participants to maximize the safety of benefits at reasonable cost. Second, for each level of risk, it is desirable to minimize the present value of future contributions that is sufficient to fund promised benefits at this risk level. It is clearly in the best interests of shareholders to minimize the cost of providing pension benefits at a reasonable risk level. Wilshire can demonstrate that both objectives lead to the same set of policy portfolios. The resulting efficient frontier ("the cost-risk frontier") contains policy portfolios that take into account the primary concerns of plan participants ("safer benefits") and plan sponsor ("lower cost"). The frontier also helps to identify the tradeoff between the plan's potential funding shortfall and future costs.

Wilshire considers each client's unique financial condition to determine the most appropriate measurements of risk. Wilshire then selects the optimization methodology that properly reflects the client's risk profile. In most cases, as recognition of the fact that each client faces a multitude of risks, Wilshire builds several efficient frontiers based on various definitions and measurements of risk.

***Step 4: Optimal Policy Portfolio***

The optimal policy portfolio can be selected based on an acceptable level of contributions or shortfall risk. However, Wilshire recognizes the importance of the components of actuarial and accounting reports. We employ stochastic simulation to allow the client to hypothetically pre-experience the impact of alternative investment strategies on the components of those reports in the future.

Several policy portfolios – from conservative to aggressive – are selected on the frontier(s) generated during the asset / liability optimization step. A stochastic simulation program illustrates the impact of the policy portfolio choice on funded status, unfunded liabilities, and required contributions. These simulations are based on forward-looking expectations (return, risk and correlations) for the major asset classes as determined by Wilshire's annual Asset Allocation Study. The model simultaneously projects assets, actuarial liabilities, contributions and benefits consistent with the plan's actuarial and capital market assumptions for as many years as needed. The policy portfolios that generate unacceptable volatility levels of the funded status, unfunded liabilities, or required contributions are rejected.




Wilshire works closely with clients to determine the optimal policy portfolio for their needs. This also means deciding how much risk to take. This can only be done by close evaluation of the tradeoffs between long-term funding and possible short-term losses from negative investment returns. The clear identification of objectives and the hierarchy of the objectives is an important part of this strategy. We have found that there is no simple formula; rather, our responsibility is to give decision-makers the tools they need to make an informed decision.

Like any asset / liability model, the input assumptions have a great deal of impact on the results. We spend considerable internal resources in developing our annual view of expected returns, volatility, and correlations. In performing our studies, we examine the sensitivity of the results to initial assumptions and discuss the import of this with our client. In cases where the staff of investment professionals will likely have well-defined views on the capital markets, we would incorporate their views into the range of initial inputs. By varying these inputs and discussing the ramifications thoroughly with our clients, we are able to convey a more robust and richer picture of the risk / return tradeoffs.

After selecting the optimal asset mix, Wilshire formulates policy ranges for each asset class and identifies the rebalancing strategy. Wilshire recommends performing an asset / liability study at the inception of a new relationship. This initial study is intended to help your consulting team gain a better understanding of your plan and insure that your fund currently has the optimal asset allocation given your objectives.

Wilshire's standard practice is to conduct subsequent asset / liability studies once every three to five years. These studies should be conducted more frequently if there is a meaningful change to the plan, such as a freeze in new benefit accruals, or to the financial condition of the plan sponsor.

**2. What variables would your firm consider essential in reviewing and developing long-range strategies for the Fund?**

Our approach to asset allocation begins by incorporating probability distributions of risk and return expectations into a quadratic optimization process to produce "efficient" portfolios. To reflect investment prudence, constraints are often placed on the individual asset classes. Wilshire works closely with clients to determine the optimal asset mix for their needs. This also means deciding how much risk to take. This can only be done by close evaluation of the tradeoffs between long-term funding and possible short-term losses from negative investment returns. The clear identification of objectives and the hierarchy of the objectives is an important part of this strategy. We have found that there is no simple formula; rather, our responsibility is to give the decision-makers the information and tools they need to be thoroughly informed.

**3. Describe your policy for changes to a pension system's asset allocation with changes in the market environment.**

Wilshire updates its capital market expectations annually so that each asset allocation study we do includes our most recent expectations. A change in market environment does not typically initiate a new study. However, we do consider the effect of long trending changes on our client's portfolios and communicate our thoughts in terms of how these changes may impact them. In general, we perform asset allocation studies at least every three years in order to determine whether market conditions over a short term period warrant changes to the client's policy objective. When severe market dislocations occur, we will recommend an asset allocation analysis be undertaken in light of potential impact from current market conditions.

Wilshire would recommend any valued-added "opportunity" in which we had confidence and believed was appropriate for our client's portfolio. However, we do not generally recommend opportunistic asset allocation changes. We can demonstrate to clients that while some trends can persist for many months or years, they are not permanent and, more importantly, vary in length and are difficult to predict. Certain clients have the ability within their own organizational structures to be more flexible with opportunistic strategies. In these cases, Wilshire will work with those clients to evaluate the degree to which an opportunity may be believed to exist. Wilshire has provided opportunistic guidance and advice in these cases which has benefited our clients.

Wilshire's annual capital market expectations are forward-looking for an expected 10-year period. So, asset allocation decisions are based on long term expectations. However, as mentioned we are current in our knowledge of a market environment and do use that knowledge in determining our final recommendations.

**4. Discuss your firm's view on risk management from an asset allocation perspective. Describe the tools you use here.**

It is important that the plan sponsor understand not only the correlation and risk expectations of the asset classes represented within the asset allocation structure but also the expectations of the investment management products selected. Hidden correlations between investment products can produce unintended bets across the total fund and impact the success of the risk budget. Wilshire addresses these concerns by building the risk budget from the bottom up AND the top down. We analyze the portfolio of each manager and then build into the risk budget by measuring how the total fund should behave with respect to the asset allocation and investment structure objectives. This holistic approach provides a more robust analysis for developing a risk budget. Below are two measures that we use to assess the interaction between managers across asset classes and within asset classes.

***Structure Risk***
Structure risk is the contribution to tracking error that arises when the fund under- or over-weights its allocation to managers within an asset class relative to the fund's capital market benchmark. This policy-level decision magnifies or limits the sensitivity of the fund to asset class risks, as defined by the capital market benchmark.

***Tilt Risk***
Tilt risk is the contribution to tracking error that arises when managers alter the sensitivity of their portfolios to risk factors relative to the benchmarks they manage against. For example, an equity manager who actively bets on size, style, leverage, beta, and / or industries relative to benchmark expects to add value along these dimensions, but in doing so exposes the fund to equity risk factors. Similarly, a fixed income manager who expects to add value through active duration, term structure, and credit decisions necessarily will alter the portfolio's relative exposure to these fixed income risk factors.

Because individual managers' investment decisions create Tilt risk for the fund, it is best evaluated and managed from the bottom-up, manager by manager.

**5. Does your firm have a process to allow the Fund to review alternative market conditions? If so, briefly describe.**

Yes. Wilshire employs all internally developed proprietary asset / liability models which can be customized based upon our clients' respective needs and benefit structures. Wilshire's program simulates possible future outcomes for each of several asset mixes on the efficient frontier or any pre-selected asset mix. These simulations are based on the return, risk and correlations as projected by Wilshire's annual asset allocation study. Our model simultaneously projects liabilities, contributions and benefits consistent with the plan's cost method, investment assumptions, and actuarial assumptions for equivalent periods of time. Asset projections and liability projections are integrated and internally consistent.

Andrew Junkin and his consulting team will work closely with the Fund to evaluate "what if" asset allocation scenarios. The process goes well beyond proving the necessary tools for asset allocation analysis to include a very personalized process for each client.

**6. Describe your firm's philosophy regarding strategic versus tactical asset allocation.**

Wilshire updates its capital market expectations annually so that each asset allocation study we do includes our most recent expectations. A change in market environment does not typically initiate a new study. However, we do consider the effect of long trending changes on our client's portfolios and communicate our thoughts in terms of how these changes may impact them. In general, we perform asset allocation studies at least every three years in order to determine whether market conditions over a short term period warrant changes to the client's policy objective. When severe market dislocations occur, we will recommend an asset allocation analysis be undertaken in light of potential impact from current market conditions. There was the case during the 2001-2002 equity market downturn.

Wilshire would recommend any valued-added "opportunity" in which we had confidence and believed was appropriate for our client's portfolio. However, we do not generally recommend opportunistic asset allocation changes. We can demonstrate to clients that while some trends can persist for many months or years, they are not permanent and, more importantly, vary in length and are difficult to predict. Certain clients have the ability within their own organizational structures to be more flexible with opportunistic strategies. In these cases, Wilshire will work with those clients to evaluate the degree to which an opportunity may be believed to exist. Wilshire has provided opportunistic guidance and advice in these cases which has benefited our clients.

Wilshire's annual capital market expectations are forward-looking for an expected 10-year period. So, asset allocation decisions are based on long term expectations. However, as mentioned we are current in our knowledge of a market environment and do use that knowledge in determining our final recommendations.

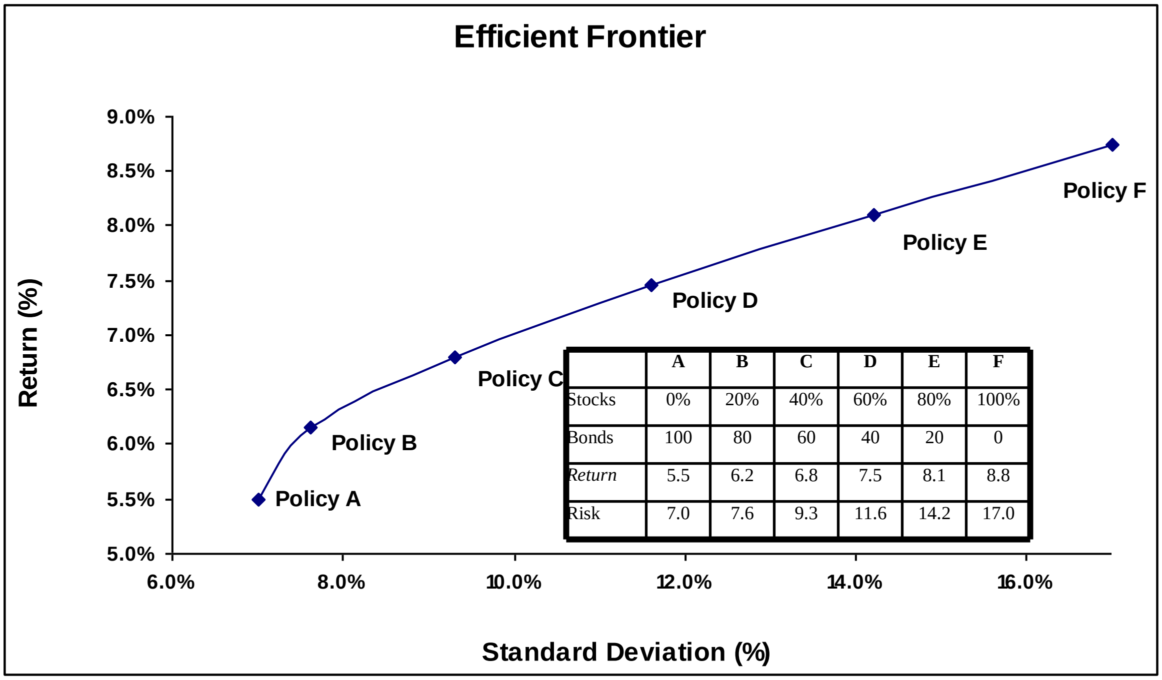
## 7. Is your firm capable of performing asset/liability modeling studies?

Wilshire has extensive experience in providing clients with ongoing advice and specific analyses for effective liability management. With pension plans, most investment policies are derived from a review of the liabilities of that plan. The liability management software maintained at Wilshire is based upon a standard mean variance optimization system. Liabilities are especially sensitive to changes in interest rates, making those liabilities highly correlated with the fixed income market. By analyzing assets and liabilities together in the optimization framework, Wilshire is best able to understand the way assets and liabilities will move together for different asset mix strategies.

Finally, the Wilshire model can project simulated results into the future, allowing clients to simulate possible future outcomes of alternative investment strategies over a period of ten years or more. Specifically, the models can hypothetically project the expected value of the investment deficit or surplus under alternative investment strategies after ten years. All else being equal, clients should elect to employ an investment program that seeks to reduce a deficit or increase a surplus over time. However, the control of (deficit) / surplus volatility is also important. The Wilshire models measure the impact of higher levels of equities on the volatility of the (deficit) / surplus. Thus, clients are also able to hypothetically pre-experience the potential year-to-year changes in the (deficit) / surplus for each alternative investment strategy.

***Asset / Liability Modeling***

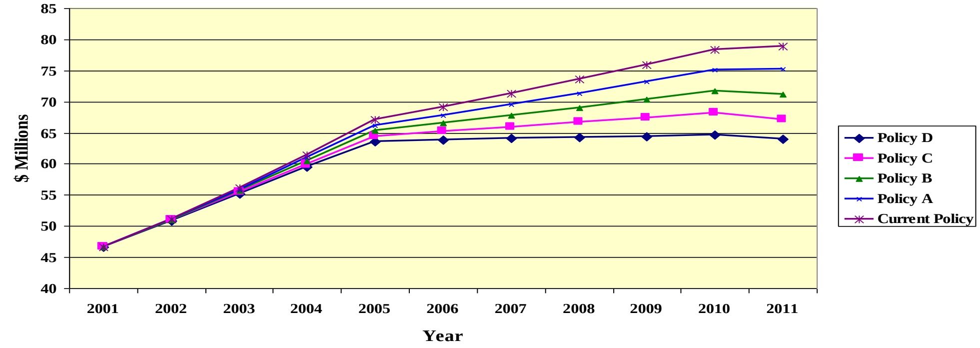
Wilshire employs all internally developed proprietary asset/liability models which can be customized based upon our clients' respective needs and benefit structures. Our model works by jointly projecting the asset and liability characteristics of a benefit plan for periods up to 20 years. It is a "Monte Carlo" program that simulates thousands of possible investment returns for each of several asset mixes on the efficient frontier or any pre-selected asset mix. These simulations are based on the return, risk and correlation projections as projected by Wilshire's annual asset allocation study. Our model simultaneously projects liabilities, contributions and benefits consistent with the plan's cost method, investment assumptions, and actuarial assumptions for equivalent periods of time. Asset projections and liability projections are integrated and internally consistent.



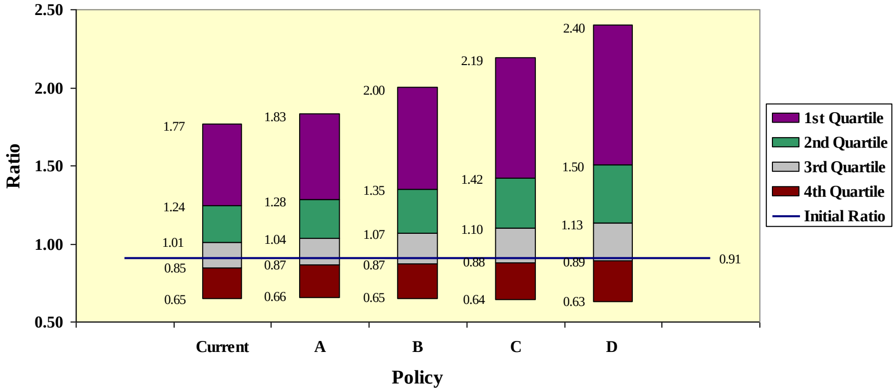

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| Stocks | 0% | 20% | 40% | 60% | 80% | 100% |
| Bonds | 100 | 80 | 60 | 40 | 20 | 0 |
| *Return* | 5.5 | 6.2 | 6.8 | 7.5 | 8.1 | 8.8 |
| Risk | 7.0 | 7.6 | 9.3 | 11.6 | 14.2 | 17.0 |

For most clients, the modeling begins with a selection of five to ten different "efficient" asset mixes. Efficient asset mixes are those that offer the highest level of return for a given risk level. Wilshire uses its return, risk, and correlation (or diversification) forecasts to generate an "efficient frontier" containing a range of efficient mixes. The figure above shows an example. Wilshire, with client input, selects a number of these efficient asset mixes to be used in the asset / liability simulation. The two figures on the page below show example output from the simulations: future contribution rates and assets-to-liabilities after 10 years.

**Expected Contribution Rates**



**Distribution of Possible Ratios of Assets-to-Liabilities after 10 Years**




The figures above are only two examples of hundreds of possible types of output that Wilshire generates from its asset / liability simulation. Consultants select those analyses that they believe best fit the factors that their clients are interested in. Wilshire's extensive software inventory in asset allocation gives clients the ability to examine asset allocation issues from many different perspectives. Simulation software is available for actuarial funding, FASB projections, stress testing, spending formula, asset / liability matching, surplus optimization and much more.

***Optimal Asset Mix***

Wilshire works closely with clients to determine the optimal asset mix for their needs. This also means deciding how much risk to take. This can only be done by close evaluation of the tradeoffs between long-term funding and possible short-term losses from negative investment returns. The clear identification of objectives and the hierarchy of the objectives is an important part of this strategy. We have found that there is no simple formula; rather, our responsibility is to give the decision-makers the information and tools they need to be thoroughly informed.

After selecting the optimal asset mix, Wilshire helps formulate policy ranges for each asset class and when to rebalance to target weights.

Wilshire recommends performing an asset / liability study at the inception of a new relationship. This initial study is intended to help your consulting team gain a better understanding of your plan and insure that your fund currently has the optimal asset allocation given your objectives. Wilshire's standard practice is to conduct subsequent asset / liability studies once every three to five years. These studies should be conducted more frequently if there is a meaningful change to the plan, such as a freeze in new benefit accruals, or change to the financial condition of the plan sponsor.

**How many certified actuaries does your firm employ that work in this area of your firm's research?**

Wilshire Consulting's Asset Allocation Group consists of Stephen Marshall, Managing Director, Ned McGuire, FSA, CFA, FRM, Senior Associate, and Emmanuel Salta, Ph.D., Associate. Stephen and Ned are responsible for the day-to-day support of the senior consultants in the asset allocation work they do for clients. Emmanuel is responsible for maintaining Wilshire's proprietary asset allocation models and conducting asset allocation studies, Biographies are provided below:

**Stephen Marshall, *Managing Director*.** Stephen Marshall, a Managing Director with Wilshire Associates, is a member of Wilshire Consulting. He leads Wilshire Consulting's asset allocation efforts. Mr. Marshall brings more than 13 years of experience in the pension industry with previous responsibilities for two large actuarial firms. Mr. Marshall joined Wilshire in 2003. He earned his BS in Mathematics from the University of New Orleans.

**Ned McGuire, FSA, CFA, FRM, *Senior Associate***

Ned McGuire, a Senior Associate with Wilshire Associates, is a member of Wilshire Consulting. Mr. McGuire is responsible for researching and maintaining Wilshire's proprietary asset allocation models and conducting asset allocation studies.

Mr. McGuire joined Wilshire in 2011. Previously, he worked as a Risk Management Consultant overseeing asset-liability management and pension risk projects; and as an Actuarial Consultant to defined benefit plan clients. He earned his M.S. in Operational Research from the University of North Carolina, Chapel Hill. He earned a B.A. in Mathematics from St. Olaf College. Mr. McGuire is a Fellow of the Society of Actuaries, a Certified Financial Risk Manager, and a CFA charterholder.

**Emmanuel Salta, Ph.D., *Associate*.** Emmanuel Salta, an Associate with Wilshire Associates, is a member of Wilshire Consulting. Dr. Salta is responsible for researching and maintaining Wilshire's proprietary asset allocation models and conducting asset allocation studies.

Dr. Salta joined Wilshire in 2008. He earned his M.S. and Ph.D. degrees in Financial Mathematics from Florida State University. He also completed his M.A. in Mathematics from Wesleyan University in Middletown, CT.

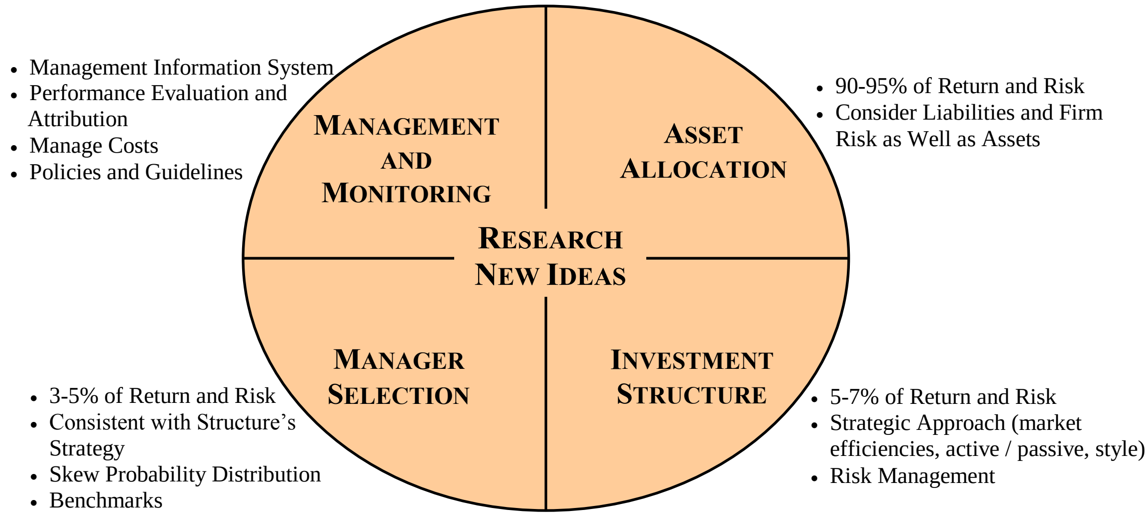
## I Investment Policy Development and Review

### 1. Describe your philosophy and process for development of:

- **overall investment policy as well as investment policy for specific asset classes;**

Wilshire Consulting has over 25 years of experience in developing investment policies, procedures and guidelines for pension funds. Our approach to developing an investment policy follows a similar format for all pension fund clients.

Investment policy and guidelines are integral to all aspects of Wilshire's investment consulting services. The following diagram demonstrates our method and process in providing investment consulting services to our clients. The process begins with asset allocation and the inherent asset / liability evaluation, moves through developing an investment structure and choosing appropriate managers, and finally evaluates the whole program through our performance monitoring program.




The development of the policy is an interactive process between the organization's management / trustees and the consultant. Following is a description of the policy development process:

***Reviewing Financial Condition***

Before recommendations regarding asset allocation or minimum rate of return can be made, it is essential to understand the dynamics of the investment fund's cash flows. Using cash flow projections provided by the client, we carefully examine the financial condition of the fund. With the direct involvement of the client, we project best and worst case scenarios for asset values and cash flows, over various time horizons. This step helps us assess one form of risk tolerance of the fund.

### *Determining Asset Allocation*

Our approach to asset allocation begins by incorporating probability distributions of risk and return expectations into a quadratic optimization process to produce "efficient" portfolios. To reflect investment prudence, constraints are often placed on the individual asset classes. Wilshire works closely with clients to determine the optimal asset mix for their needs. This also means deciding how much risk to take. This can only be done by close evaluation of the tradeoffs between long-term funding and possible short-term losses from negative investment returns. The clear identification of objectives and the hierarchy of the objectives is an important part of this strategy. We have found that there is no simple formula; rather, our responsibility is to give the decision-makers the information and tools they need to be thoroughly informed.

### *Setting Investment Policies and Guidelines*

Wilshire works with clients to specify overall objectives that are consistent with the plan's financial requirements, reflect the asset allocation strategy, and are realistic given available investment opportunities. A written policy statement establishing overall investment objectives is prepared. It includes specific policies and procedures, asset allocation guidelines, and performance objectives. Items that should be included in the investment policy are:

- Mission Statement / Objectives
- Asset Allocation Policy
- Duties and Responsibilities of all Parties
- Investment Philosophy
- Investment Structure
- Individual Manager Guidelines
- Proxy Voting Policy
- Brokerage or Soft-Dollar Policy
- Manager Retention and Evaluation Policy
- Rebalancing Policy
- Securities Lending
- Corporate Governance
- Derivatives Policy

### *Establishing Investment Structure*

After completion of the fund simulation study, Wilshire reviews the current investment structure in the context of the new investment policy and objectives. An efficient investment structure can help minimize performance slippage and facilitate control at the fund level of pension management. At this stage, Wilshire evaluates the appropriateness of alternative investment strategies such as active versus passive implementation, manager style, number of managers, etc.

***Establishing Investment Manager Guidelines***

Wilshire will also prepare investment manager guidelines, which contain several elements to effectively monitor a manager. The guidelines contain the following elements:

- A qualitative description of style and the strategic role the manager will play in the structure
- Investment characteristics the portfolio is to exhibit which can be compared to actual characteristics each quarter
- A list of permitted investments which differ by asset class
- A list of restrictions (e.g., derivatives)
- Performance objectives (return and risk)

***Implementing New Strategic Mix***

Once a new strategic asset mix has been determined, a rebalancing plan must be implemented to rebalance the fund's assets to this new allocation. Wilshire believes that reallocation should not be done opportunistically (i.e., via market timing). Rather, the assets should be redirected over a sufficient period of time through cost minimizing and risk-controlled techniques (e.g., dollar cost averaging).

***Maintaining Investment Policy***

Wilshire Consulting continuously monitors and conducts thorough reviews of our clients' investment policy, investment strategy, and portfolio mix every quarter via our regular performance monitoring services unless a more frequent review is required. Wilshire will usually formally review a client's asset allocation policy every three to five years. Exceptions to this are: changes to the plan sponsor's projected liability or funded status, investment manager organizational changes which would adversely affect the investment process, departures of key investment professionals, substantive change in investment style or process, and sharp deviation in volatility versus expectations for a manager.

- **client investment objectives, especially public pension clients.**

Wilshire works with clients to specify overall investment objectives that are consistent with the plan's purpose and are realistic given available investment opportunities. A written policy statement establishing overall investment objectives is prepared. It may include specific policies and procedures, asset allocation guidelines, and performance objectives. Items that should be included in the investment policy are:

- Mission Statement / Objectives
- Duties and Responsibilities of all Parties
- Investment Philosophy
- Investment Structure
- Individual Manager Guidelines, if appropriate in separate accounts
- Manager Retention and Evaluation Policy

## 2. Outline your process for analyzing a client's investment portfolio structure.

Wilshire develops an investment strategy for each of the asset classes chosen during the asset allocation process. We emphasize the following goals during this process:

- Limiting active management to managers who have demonstrated an ability to add value versus their appropriate benchmark
- Reducing management fees and controlling other costs where appropriate
- Removing factor risk within the relevant asset classes

The steps we follow to develop the optimal investment structure are outlined below:

***Review Investment Structure***

After completing an asset allocation study, Wilshire reviews the client's current investment structure in the context of the new investment policies and objectives. Has the current structure achieved the fund's objectives in the past? Is it likely to achieve the fund's revised objectives in the future? Are there redundancies in the current structure, or risks that aren't properly controlled?

***Select Asset Class Benchmark***

Benchmark selection determines asset class return and risk characteristics indirectly, by influencing money managers' behavior, and directly, if index funds are used to replicate the benchmarks. Wilshire begins by assisting the fund sponsor in selecting an appropriate performance benchmark for each asset class, and the plan in aggregate. We also work with clients who want to customize benchmarks which will exhibit higher long-term returns or a lower risk profile, and which adequately meet a clients' individual risk / return tolerances.

***Evaluate Alternative Investment Strategies: Active / Passive, Style / Size Tilt***

The advantages of active versus passive management vary by asset class and fund size. Wilshire was one of the first consultants to advocate index funds for U.S. stocks, particularly for the larger S&P 500 issues. However, we discourage passive alternatives in markets that are not efficient or in markets where we believe managers can consistently add value.

For **equities**, we begin by examining the three basic alternative structures:

- All passive, style / size neutral
- All active, style / size neutral
- Mix active / passive, style / size neutral

To determine which is optimal, one must examine the following questions:

- How much in index funds?
- How is this decision made and what are the criteria?
- Which index should be used?
- Are index "plus" funds attractive?
- Do style indices add anything?
- Are core managers better (worse) than combining specialty managers?
- How many managers? How do we weight them?
- What disciplines should we have for rebalancing?
- How should currency hedging be handled?
- Should portable alpha be considered?

For large capitalization U.S. equities, we believe the market has become increasingly efficient. We believe neither a style bias to value or growth nor a small cap bias will generate excess returns above the broad market, and passive management is an important strategy for large pension plans to consider. In increasingly efficient markets, passive management provides market exposure at a minimal cost (management and trading) to institutional portfolios. Passive management also reduces the administrative and investment monitoring burden to in-house staff.

Our research staff is focused on identifying the best implementation plan for U.S. equities, which for most plans represent between 40-60% of total assets. Our strategy is to build portfolios that are style neutral, have an appropriately sized allocation to index funds to reflect the market's efficiency, and to help minimize costs of management fees and transaction costs from turnover.

We use Wilshire's style metric model to identify style risk across the manager team. The total equity composite can be plotted as well, to determine overall style bias. An unintended bias can be measured in a number of ways, including re-weighting managers (optimization where risk is measured versus a style neutral position) or through the addition or deletion of managers.

We believe the **fixed income markets**, unlike the equity markets, offer systematic opportunities with positive long-term returns. Systematic risk factors include: interest rate risk, credit risk, and prepayment risk.

Our approach to fixed income is to identify the target duration (for young to average age plans this is typically the market duration) and the optimal weight to each fixed income sector. We believe that accepting a higher level of prepayment and credit risk can reward investors over three to five year periods.

We further believe that a small group of fixed income managers have developed good research across fixed income sectors and thus we favor a generalist approach where one manager makes small shifts across sectors to capture returns from changing spreads.

In terms of **non-U.S. fixed-income** investing, we recommend utilizing the leading handful of fixed income managers who invest internationally on an opportunistic basis and treat this area as a separate sector. Depending on the client's plan size, high yield would be managed the same as non-U.S. fixed-income or as a separate allocation.

In terms of **non-U.S. equity** we do not find the returns from active management due to stock selection to be superior to U.S. managers. On the contrary, we find the selection of a long-term weighting to economic regions is the most important decision for successful results. Our research shows that, on average, active managers lose 1% per year from stock selection because of the high transaction costs in foreign markets. Managers who outperform the benchmark generally achieve their results by making good long-term allocations to economic regions. We focus our analysis on the regional and country exposure managers are taking.

We believe the developed non-U.S. markets are becoming more efficient and some segment of this market should be passive. Active emerging markets exposure in this asset class can help enhance value and reduce overall risk. Our research indicates that the optimum allocation to emerging markets within a non-U.S. equity portfolio is similar to their capitalization weighting in the broad based non-U.S. equity benchmarks.

Wilshire uses the same approach for **real estate** as well as other **private market** and **hedge fund** investments, but allows for lower returns, provided the investment offers lower risks. In areas of real estate and private markets, Wilshire recommends a diversified portfolio across market sectors.

Wilshire believes derivatives can be successfully used to help minimize risk in a portfolio if used judiciously. We see the primary purposes as substitution for the cash market instrument, hedging to facilitate risk control and to a lesser extent arbitrage.

We do not support the use of derivatives to speculate, nor do we support the employment of excessive leverage. We will assist in the drafting of manager guidelines to ensure that derivative risk is properly managed and monitored.

***Investment Structure***

We believe that the best investment structures incorporate all the elements of our basic approach, which are designed to manage risk exposures and reduce costs. However, because each client is different, each client's investment structure will be drawn individually taking into consideration the fund size and risk tolerance to optimize the potential for meeting the client's objectives.

## J Investment Manager Database & Research (Traditional and Alternative)

**1. Does your firm maintain an in-house database of investment managers? If not, from what vendor do you purchase the database?**

Yes, Wilshire collects and maintains its proprietary and internally developed database of investment managers and advisors.

**2. How many traditional managers and how many products are included in the database your firm uses?**

Currently, Wilshire's stock and bond manager databases cover nearly 8,000 investment products, over 24,000 mutual funds, and approximately 5,000 hedge funds[1]. Wilshire's investment product database is divided into the following major groupings:

| ASSET CLASS | CURRENT NUMBER OF INVESTMENT PRODUCTS |
|---|---|
| ***U.S. Equity*** | 3,732 |
| ***Non-U.S. Equity*** | 1,859 |
| ***U.S. Fixed Income*** | 1,391 |
| ***Global Fixed Income*** | 459 |
| ***Other*** | 455 |
| **TOTAL** | **7,896** |

We maintain separate databases of approximately 70 private equity fund-of-funds products and 50 private real estate managers. In addition, our public real estate database has more than 100 managers.

**3. If the database you use is proprietary, describe the risk management procedures that have been implemented to protect it.**

[1] External vendors provide hedge fund and mutual fund databases.

Wilshire has procedures implemented to ensure that system access to information of an operating group is limited to that group's members. Each Wilshire operating group, including Wilshire Consulting and Wilshire Analytics, access information related to its business through separate file servers and / or separate drives or shared servers. Access to servers and drives is controlled by individual user access through our separate IT group. There are distinct client contact databases for each group on their own servers to ensure that Wilshire Analytics databases are not shared with consultants and vice versa. Commonly used analytical tools such Wilshire Atlas℠ and Wilshire Axiom℠ are used independently; therefore, any client portfolios that Wilshire Analytics may be working on, cannot be accessed by other groups.

In order to provide for increased redundancy for critical systems, to ensure Internet connectivity, and to mitigate the potential effects of rolling energy blackouts and other energy outages, Wilshire undertook the following major technology initiatives:

- Wilshire has implemented a co-location strategy for the company's production and back-up servers that support primary business applications.
- Wilshire has installed a secondary Uninterruptible Power System (UPS) to back-up critical business servers and network hardware, and integrated it into the company's Emergency Power Plan.
- Also Wilshire installed secure network connections VPN (Virtual Private Network) with its remote offices outside of Santa Monica in Pittsburgh, Jersey City, London, Amsterdam, and Canberra.

These initiatives represent a significant technology investment in production performance and disaster recovery assets not only in facilities and hardware, but also in network configuration to implement them.

**4. Describe how your firm gathers, verifies, updates, and maintains the data collected on managers for the database. Please include how often the databases are updated, how often staff visits managers and the nature of the visits, and whether your firm uses surveys in evaluating managers in the database.**

Data collection is the starting point for the investment due diligence process. Wilshire currently collects information through two channels. The first channel of data gathering is our detailed qualitative questionnaires crafted specifically for each asset class. The second is the Wilshire Compass Portal (a.k.a. Wilshire Odyssey), our proprietary online data submission site.[1]

[1] Effective in 2012, Wilshire's due diligence questionnaire will be collected online through the Wilshire Compass Portal.

Our questionnaires are designed to provide comprehensive profiles of managers including general business information such as key professionals, investment process, research sources, investment style, fees, and performance. Wilshire utilizes the Wilshire Compass Portal facility in the creation and retrieval of firm and strategy specific information. Minority-owned, women-owned, and disabled veteran-owned managers are incorporated in the same manner as other managers, according to asset class. Additionally, we process portfolio equity holdings submitted by managers through our equity analytics system, Wilshire Atlas$^{SM}$, to calculate portfolio characteristics. Wilshire gathers portfolio characteristics directly from fixed income managers in order to mitigate the impact of OTC pricing in fixed income markets. The portfolio characteristics that we gather or calculate for most managers include:

- Security count (number of portfolio holdings)
- Market capitalization measures
- Growth measures (ROE, earnings growth, etc.)
- Value measures (P/E, P/B, yield, etc.)
- Risk measures (beta, debt / equity ratio, etc.)
- Industry weightings
- Country weightings
- Debt ratings (bonds)
- Maturity, duration (bonds)
- Mortgage, corporate weightings (bonds)

With the exception of hedge fund and mutual fund databases, which are provided in part by external vendors, product data is obtained directly from investment managers. Because there is no manual handling of data by Wilshire, the data is not subject to error after it enters our databases, though the managers themselves can erroneously input data. Wilshire has a dedicated operations team who works directly with managers to assist in ensuring the timeliness and quality of manager-supplied information.

Wilshire collects and maintains a universe of qualitative questionnaires submitted by investment managers for the products they offer. The questionnaires are structured to help our manager research analysts evaluate managers using our evaluation model. The questionnaires are built around the six areas of focus in our qualitative model: Organization, Information, Forecasting, Portfolio Construction, Implementation, and Attribution. Each area of focus has a dedicated section with in-depth questions built to give our analysts a better understanding of the qualitative characteristics of the organization, philosophy, and process. These questionnaires are currently maintained electronically on our internal network.

Investment managers are asked to disclose any past regulatory violations, fines, sanctions or similar issues in their answers to our Manager Research Questionnaire. During formal search processes only, each finalist manager candidate's Form ADV is collected and reviewed to determine consistency with the Manager Research Questionnaire. Additionally, upon client request, Wilshire will collect (on an annual basis and if available) a manager's Form ADV and forward it directly to the client making the request. Wilshire does not review Form ADV documents as a part of its ongoing manager monitoring process. For any investment manager that acts as a broker or self-custodies client assets, Wilshire will request and review the manager's audited financial statements during a search to determine whether the auditor has issued an unqualified opinion. Any issues identified in the auditor's opinion letter will be communicated to the client. However, Wilshire does not undertake any substantive review or analysis of the financial statements. Lastly, if an investment manager claims GIPS® compliance, we collect a GIPS® compliant presentation for the strategy under review. If the manager underwent independent third party verification, we will collect the verification report.

Access to the databases is coordinated through the lead consultant. Some clients may choose to subscribe to Wilshire Compass, Wilshire Atlas℠, and / or Wilshire Axiom℠ systems to perform more in-depth analyses of their investment portfolio. Although Wilshire provides in-depth analyses as a part of our full-retainer services, some clients also like to have direct access to these programs for additional internal analysis of their funds.

Generally, Wilshire's Manager Research Group meets with active managers on a face-to-face basis once per year. For passive or quantitative managers, frequency is dependent on organizational issues. Wilshire conducts meetings both at Wilshire offices and on-site at manager offices and supplements these meetings with telephone and video conferencing.

Manager research professionals and consulting staff conduct over 1,500 manager meetings per year. Our extensive dealings with managers and knowledge of clients' objectives allow us to focus on specific investment and/or organizational issues during on-site visits.

**5. Do you or the vendor you use charge direct or indirect fees for investment managers to be included in the database? If so, describe the fees.**

Wilshire maintains an open door policy with respect to our manager databases and does not charge managers any fee, direct or indirect, for product inclusion. All data provided by managers is on a voluntary basis. The only cost that a manager incurs to participate in our databases is the cost of their time to enter the information.

**6. With regard to "Alternative Assets" (broadly defined as Real Estate, Private Equity, and Hedge Funds), describe your firm's research facility for each area.**

Wilshire believes it has developed a leading research effort that is predictive, powerful and precisely articulated. Our quantitative component is supplemented by a qualitative component largely focused on specific areas within the organizations investment team, process, and resources. We also build in a component evaluating the term structure and fund terms. Wilshire Consulting maintains product research committees comprised of consultants to evaluate and maintain research on hedge funds, private equity fund-of-funds, private real estate, and real assets.

The following is a partial list of the qualitative considerations considered during the due diligence process:

**Style Analysis**

- What are the realistic expectations for annualized returns from this style?
- What are the current market conditions?
- Are the current market conditions conducive for this style to extract returns?
- What could occur to change the current status?
- How will future market conditions affect this style?
- How many managers are active in this style? If the space is concentrated, can that potentially affect future profitability?
- What distinguishes a good manager from a bad manager in this style?

**Business Terms Analysis**

- Is there a well-developed business plan for the company?
- Who owns the equity in the management company?
- How many employees currently work for the company? How are they compensated?
- Are there any plans to hire additional staff as the fund grows?
- Is the office space owned or leased? If leased, what are the terms?
- What administrative or operational duties are outsourced?
- What is the general culture of the work environment?

**Management Team Analysis**

- How many investment professionals are dedicated to the portfolio?
- What is their background? How directly related is their experience to their current style of management?
- Does the team have a history of working together?
- Who is the ultimate decision-maker or are decisions made by committee?
- How much of the team’s liquid net worth is in the fund?
- How is key investment personnel compensated? If not already, are there plans to give an equity stake in the business?
- How does the management team compare to the existing managers of the portfolio?

**Fundamental Portfolio Analysis**

- What is the real competitive advantage to this particular strategy (i.e. what is its edge)?
- Can outsized returns realistically be generated from this particular strategy?
- What drives the returns in this particular strategy?
- Can the strategy produce consistent returns commiserate to the risks assumed in the portfolio?
- Can the returns currently generated from the strategy persist?
- What is the inherent volatility associated with this strategy?
- How does this strategy compare to what is already in the portfolio or to similar strategies we have previously interviewed?

**Risk Management Analysis**

- What formal risk management guidelines are in place? (Positions sizes, exposures, stop-losses, etc)
- Are there any “informal” procedures the manager adheres to that are more restrictive than the formal guidelines?
- Does the manager understand the sources of risk associated with the expected returns? How are these risks monitored?
- How can the manager assure investors that the risk levels are acceptable and consistent with the established (defined) risk?
- What is the maximum draw down the portfolio can experience?
- Does the manager willingly confront the tail-risks associated with their strategy? Are they capable of logically explaining these risks?
- What actions taken by the manager will cause investors to question the risk management controls?
- Does the manager provide an adequate risk summary report to investors?

**Operational Analysis**

- What is the infrastructure of the firm? Is there a documented workflow?
- Does the firm have a dedicated operations professional? Mid office? Back office? If so, what is their related experience?
- How is the NAV calculated?
- Is there an independent 3rd party involved in the pricing of the positions in the portfolio?
- How often do pricing discrepancies between the manager and the 3rd party administrator occur? What is the policy for settling such discrepancies?
- Have policies and procedures been developed for trading activities, risk analysis and employee compliance?
- How are trades reconciled? How frequently?
- What systems are used to monitor the portfolio?
- Who does the actual trading?
- Who are the firm’s service providers (legal, auditor, prime-broker, and administrator)? What are their contractual services to the firm?

- Has there been a review of the financial statements?
- Is the firm subject to regulatory oversight?

**Reference / Background Checks**

- Does an independent background check reveal any inconsistencies with what the manager has already declared?
- Does a database search produce current / archived news regarding the firm or the manager?
- What is the quality of the manager's references? Are they investors, other hedge fund managers, sell side professionals, non-investment professionals?
- How does the reference know the manager? What kind of firm does the reference work for?
- What kind of communication does the reference have with the manager?
- If the reference is invested with the manager, is it part of a multi-manager allocation or a stand-alone investment? Is it personal capital or firm capital?
- Does the reference think that the manager has a good sense of the macro issues? Trading issues?
- Does the reference believe that the manager has a good grasp of the risks taken in the portfolio?
- What are the reference's expectations (risk, beta, etc)?
- What would cause the reference to redeem from the manager?
- Does the reference hold any underlying concerns for the manager (diversification, idea generation, risk management, etc)?

Additionally, Wilshire Private Markets ("WPM"), a business unit of Wilshire, has extensive experience investing in private equity on a global basis. Across WPM's five offices, our investment due diligence is led by local teams in North America, Europe, Asia and Australia, allowing us to combine a global perspective with local market presence. WPM seeks to create high performing diversified private equity solutions that prudently manage portfolio risk, compensate investors for illiquidity and meet or exceeded our clients' risk-adjusted return expectations. WPM's services are available to the Fund as a separate retainer fee.

**7. How many searches did you conduct in each area in 2010? List this by asset class for traditional managers and for Alternatives, list by Real Estate, Private Equity, Hedge Funds, and (including fund of funds).**

Investment fund selection is an integral part of Wilshire's consulting services. As a leading consulting firm focused on providing services to large corporate, public, and endowment fund sponsors, we closely monitor all "institutional quality" money management firms, both domestic and foreign-based. Wilshire Consulting completed the searches identified in the table on the following page:

| Asset Class | 2010 |
|---|---|
| Fixed Income - Core | 19 |
| Fixed Income - Emerging Debt | 1 |
| Fixed Income - High Yield / Opportunistic | 14 |
| Hedge Fund of Funds | 2 |
| International Equity | 19 |
| International Equity - Emerging Markets | 6 |
| Portable Alpha | 0 |
| Private Equity | 2 |
| Real Assets | 10 |
| Real Estate - Global REIT | 2 |
| Real Estate - REITs | 1 |
| Tax Efficient Equity | 0 |
| TIPS | 5 |
| U.S. Equity - Enhanced | 5 |
| U.S. Equity - Large Cap Growth | 5 |
| U.S. Equity - Large Cap Value | 3 |
| U.S. Equity - Large Core | 2 |
| U.S. Equity - Mid Cap Growth | 0 |
| U.S. Equity - Mid Value | 2 |
| U.S. Equity - Small Core | 9 |
| U.S. Equity - Small Growth | 3 |
| U.S. Equity - Small Value | 3 |
| **Total** | **118** |

### 8. List your firm's Alternative Asset Research organizational chart.

The following is a list of the product specialists and their respective research coverage.

**Head of Hedge Funds**
Jonathan Miles, CFA, CAIA
*Vice President*

**Jonathan Miles, CFA, CAIA**
*Vice President*

**Razmig Der-Tavitian, CFA**
*Associate*

**Will Beck**
*Analyst*

** Includes Listed Real Assets*
*Asset class assignments effective 6/15/2011, and are subject to change without notice.*

| | |
|---|---|
| ***Private Equities and Debt (Fund of Funds)*** | Jim Neill<br>Tom Toth |
| ***Real Assets (Commodities, Timber, Infrastructure, Private Real Estate, etc.)*** | Mannik Dhillon<br>Mike Dudkowski<br>Mike Rush<br>Alex Browning |

After all products under consideration have been given a preliminary score by Wilshire's Manager Research Group, Wilshire consultants become actively involved in the process through Product Review Committees. Wilshire consultants' experience specifically contributes to the manager research process. The Product Review Committee is made up of at least three senior consulting professionals and their role is to interview the top manager candidates and assign final product rankings. The product evaluations and rankings are used by all Wilshire consultants to assist clients in the selection of new products and the evaluation of existing products. Product Review Committees for alternative investments are detailed below:

| Real Estate | Natural Resources / Other Real Assets | Private Equity | Hedge Funds |
|---|---|---|---|
| Mike Dudkowski, MD* | Michael Schlachter, MD* | Jim Neill, MD* | Karim Simplis, SA* |
| Felicia Bennett, MD | Alex Browning, SA | Tom Toth, MD | Maggie Ralbovsky, MD |
| Mike Rush, VP | Todd Douds, SA | Michael Patalsky, VP | Tom Toth, MD |
| | | Karim Simplis, SA | Karyn Williams, Ph.D. |
| | | | Joe Dressel, SA |

## K Investment Manager Searches

### 1. Describe your philosophy and methodology used in evaluating and selecting investment managers.

Wilshire's manager research process involves two distinct steps: (1) ongoing manager research and evaluation and (2) client-directed manager searches and selection. Both the evaluation and the selection processes rely on our manager research staff, databases and technology, evaluation model, and Wilshire consultants.

**Manager Search Process**

Wilshire's search process starts with our dedicated Manager Research Group, which conducts ongoing evaluation, monitoring and in-depth research of manager products using our comprehensive manager database, formal scoring process, and extensive consultant involvement through investment committees.

The following exhibit illustrates the manager due diligence process:


***Manager Database***

Wilshire collects and maintains its proprietary and internally developed database of investment managers and advisors. Currently Wilshire's investment product database is divided into the following major groupings:

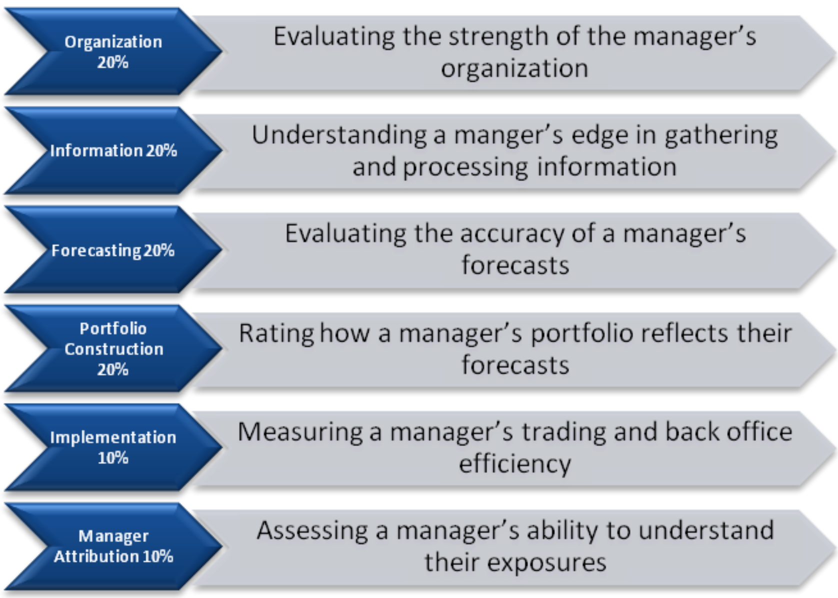
| ASSET CLASS | CURRENT NUMBER OF INVESTMENT PRODUCTS |
|---|---|
| ***U.S. Equity*** | 3,732 |
| ***Non-U.S. Equity*** | 1,859 |
| ***U.S. Fixed Income*** | 1,391 |
| ***Global Fixed Income*** | 459 |
| ***Other*** | 455 |
| **TOTAL** | **7,896** |

Wilshire's manager databases cover over 24,000 mutual funds and approximately 5,000 hedge funds. We maintain separate databases of approximately 70 private equity fund-of-funds products and 100 private real estate managers.

***Manager Scoring***

Wilshire believes that the most important step – and most time consuming – in manager selection is the qualitative evaluation. Our qualitative model is comprised of six separate and distinct components that represent a comprehensive and forward-looking analysis of an investment management operation. The graph below outlines our manager evaluation model.

**Wilshire Manager Research Qualitative Scoring Model**




The six components and their relative weightings are described below along with examples of areas of evaluation, analysis, and comparison to peers.

***Organization (20%)*** **–** For an investment strategy to thrive, it must be the product of a solid team and a stable organization. Here, we look for teams with experience, maturity and vision. We look for organizational cultures that can attract and maintain such teams through ownership structures, compensation levels and benefits.

***Information Gathering (20%)*** **–** It is generally accepted in financial theory that new information drives security prices at the margin. This is observed empirically as well. Therefore investment managers must have a robust infrastructure for gathering and processing information related to securities. Specifically, we want to know how much managers know about any specific company / security which is in their investable universe. We are interested in the depth of the information gathering process, not necessarily the breadth. We like to see managers with multiple sources of information. We like managers that gather the information through their own efforts, such as on-site meetings and industry conferences. We like managers to understand what information is largely discounted in the present security price and what information is unique, or non-consensus.

Due to regulations regarding the disclosure of financial information, the wide availability of electronic databases and the rapid dissemination of information, it is difficult for managers to develop truly unique sources of information. This is an area where it is hard to stand out, yet easy to fall behind. However, it is a crucial component of the investment process and is the foundation on which the next stage is built.

***Forecasting (20%)*** **–** Once a manager has information, he / she develops an outlook for the security. This outlook will always imply a forecast. In most cases the manager arrives at a valuation for the security which is the manager's forecast of the "intrinsic" value. Basically, we would like to know how predictive are the manager's forecasts or how accurate are the manager's valuations. In evaluating the forecasting process we want to understand how valuations are created, the robustness and sensibility of the process. We want to understand under what condition the valuation process is likely to work. Are we likely to see that environment in the investment style to which the manager belongs? What is the weakness of the valuation process? What are the critical variables that the manager needs? Is it a key discount rate, earnings growth or all of the above? Finally, we want to assess the degree to which the manager understands these same issues. No manager is likely to have the "silver bullet" for every situation and we are more comfortable with managers who understand the limitations of their process.

***Portfolio Construction (20%)*** **–** Building upon a developed forecast, the manager must bring additional information for constructing the portfolio. Not only should the manager know which securities he / she would like to own, but also understand the risks inherent in each security and then reconcile the return opportunity with that risk. Therefore, we look at how managers consider risk, how they create positions, how they manage or trim positions and how they terminate positions. Each of these decisions requires balancing the return opportunity with risk.

***Implementation (10%)*** **–** It is not sufficient to know which paper portfolio is well suited to provide positive excess return. One must also go out into the market and obtain that portfolio. Our process assesses the manager's ability to transact in the marketplace and qualitatively considers the impact of trading on the overall success of the strategy. Strategies in which there are a sizable amount of assets or those which have a high level of turnover need to have advanced trading capabilities. Managers need a keen awareness of trading costs. By evaluating brokers, managers could gain a competitive edge through transaction cost management. At a high level, Wilshire considers the portfolio, accounting, and general investment guideline compliance as well when evaluating implementation issues.

***Attribution (10%) –*** Finally, our manager evaluation process assesses the manager's ability to understand outcome. In the most simplistic schemes, managers are concerned solely with performance. However, attribution (that a manager performs himself / herself) is review for an equally powerful purpose: the path to improvement. It informs the manager as to what is working and what is not. More sophisticated attribution provides a link between each stage of the investment process and the return associated with that stage. These links can provide important direction as to how the manager should adjust their process to attain or keep a competitive edge. Many managers make a point of "sticking to their discipline" during periods of underperformance but fail to realize that is due, in part, to outdated valuation methodologies and / or portfolio construction techniques. Attribution provides the means by which managers can stay competitive.

***Quantitative Scoring***

The objective of quantitative analysis during the manager research process is to analyze the historical risk and return of the strategy and to ascertain whether it was attributable to skill or not. Our investment professionals utilize Wilshire's proprietary analytics to perform quantitative analysis on managers during the due diligence process. The primary tools used in the analysis are Wilshire Compass, Wilshire Atlas, and Wilshire AxiomSM. Our analytical work includes a review of absolute risk and returns, risk adjusted returns, consistency and skill analytics, universe comparisons, holdings and returns based style analysis, and historical allocations.

Wilshire Compass is a proprietary technology with capabilities in asset allocation, investment structure, and manager and total fund evaluation. The electronic information collected through the Wilshire Compass Portal powers the Wilshire Compass analytic through a seamless transfer of portfolio characteristics data. Wilshire Compass provides holdings-based analytics with data submitted by equity managers through its integration with the Wilshire Atlas equity analytics system.

Wilshire Consulting has developed a quantitative methodology for summarizing historical manager returns into a single metric that can assist in evaluating manager performance. However, a manager's performance history up to the evaluation date also needs to be analyzed to determine how their qualitative attributes have manifested themselves in risk and return. The difficulty lies in identifying meaningful metrics, choosing an appropriate time period, adjusting for risk and considering how a manager's competitors have performed. Wilshire Consulting's Historical Investment Performance (WHIP) Score is an effort to evaluate risk and return across these various dimensions and summarize the results in one number to facilitate the performance comparison of competing managers.

The WHIP score is comprised of three tests plus an adjustment factor. The goal is to determine whether a manager's bets versus the benchmark are "paying off" and to be able to fairly compare one manager to the next. While the WHIP score seeks to automate the quantitative scoring process, clients are welcome to request and review a detailed custom quantitative analysis of a manager's performance or any other scoring methodology that they may prefer.

***Manager Questionnaires***

Wilshire's manager data is collected directly from managers through their responses to our quantitative and qualitative questionnaires and website data submissions. Wilshire's databases are unique in that actual equity manager portfolios are input into our databases so that portfolio characteristics can be calculated in a uniform fashion across all managers, making manager comparisons more accurate. Fixed income portfolio characteristics data is collected with explicit instructions that managers utilize Wilshire's methodology for calculating current yield, yield-to-maturity duration and convexity in order to ensure uniformity of these measures.

*Quantitative Information:* Our questionnaires are designed to provide comprehensive profiles of managers including general business information such as key professionals, investment process, research sources, investment style, fees, and performance. Wilshire utilizes the Wilshire Compass Portal facility in the creation and retrieval of firm and strategy specific information. Minority-owned, women-owned, and disabled veteran-owned managers are incorporated in the same manner as other managers, according to asset class. Additionally, we process portfolio equity holdings submitted by managers through our equity analytics system, Wilshire Atlas[SM], to calculate portfolio characteristics. Wilshire gathers portfolio characteristics directly from fixed income managers in order to mitigate the impact of OTC pricing in fixed income markets. The portfolio characteristics that we gather or calculate for most managers include:

- Security count (number of portfolio holdings)
- Market capitalization measures
- Growth measures (ROE, earnings growth, etc.)
- Value measures (P/E, P/B, yield, etc.)
- Risk measures (beta, debt / equity ratio, etc.)
- Industry weightings
- Country weightings
- Debt ratings (bonds)
- Maturity, duration (bonds)
- Mortgage, corporate weightings (bonds)

*Qualitative Information:* Wilshire collects and maintains a universe of qualitative questionnaires submitted by investment managers for the products they offer. The questionnaires are structured to help our manager research analysts evaluate managers using our evaluation model. The questionnaires are built around the six areas of focus in our qualitative model: Organization, Information, Forecasting, Portfolio Construction, Implementation, and Attribution. Each area of focus has a dedicated section with in-depth questions built to give our analysts a better understanding of the qualitative characteristics of the organization, philosophy, and process. These questionnaires are currently maintained electronically on our internal network.

Investment managers are asked to disclose any past regulatory violations, fines, sanctions or similar issues in their answers to our Manager Research Questionnaire. During formal search processes only, each finalist manager candidate's Form ADV is collected and reviewed to determine consistency with the Manager Research Questionnaire. Additionally, upon client request, Wilshire will collect (on an annual basis and if available) a manager's Form ADV and forward it directly to the client making the request. Wilshire does not review Form ADV documents as a part of its ongoing manager monitoring process. For any investment manager that acts as a broker or self-custodies client assets, Wilshire will request and review the manager's audited financial statements during a search to determine whether the auditor has issued an unqualified opinion. Any issues identified in the auditor's opinion letter will be communicated to the client. However, Wilshire does not undertake any substantive review or analysis of the financial statements. Lastly, if an investment manager claims GIPS® compliance, we collect a GIPS® compliant presentation for the strategy under review. If the manager underwent independent third party verification, we will collect the verification report.

***Ongoing Manager Meetings***

Another important part of our manager evaluation process consists of manager meetings conducted by both Wilshire's dedicated Manager Research Group and our investment consultants. Wilshire conducts meetings both at Wilshire offices and on-site at manager offices and supplements these meetings with telephone and video conferencing.

The purpose of our on-site meetings is to spend time in an investment manager's office evaluating the culture, morale, and general "feel" of the environment. We will meet with key investment professionals at various levels of the team, and we may meet senior business management professionals and operations professionals independently. In addition, we may spend time observing the investment process by attending investment team meetings, research calls, reviewing internal research while challenging and understanding investment professionals' knowledge of securities, sectors, and geographies under their purview. We assess the portfolio management and research tools (e.g. databases, screening tools, valuation models, optimization processes).

Manager research professionals and consulting staff conduct over 1,500 manager meetings per year. Our extensive dealings with managers and knowledge of clients' objectives allow us to focus on specific investment and/or organizational issues during on-site visits.

To keep our clients informed of the latest investment manager developments, Wilshire distributes weekly Manager Research News Alerts. News Alerts provide the latest manager news with perspective and context from our manager research analysts.

***Oversight Committees***

There are two levels of oversight committees built into the manager research structure at Wilshire. The first and highest level committee is the Manager Research Oversight Committee ("MROC"). The MROC is comprised of the Chief Compliance Officer, President of Wilshire Consulting, President of Wilshire Funds Management, Head of Research in Wilshire Consulting, Head of Investments from Wilshire Funds Management and the Manager Research Coordinator in Wilshire Consulting. The objective of this committee is to oversee compliance with manager research policies and procedures and to implement strategic direction to manager research efforts at Wilshire. The committee meets on a weekly basis.

The second level of manager research oversight consists of Wilshire's Asset Class Committees ("ACC"), which are comprised of manager research specialists and at least three senior consultants. There are eight committees tasked to oversee manager research on traditional asset classes, each of which is scheduled to meet at least semi-annually. The objectives of the ACCs are to provide oversight on manager research coverage of client exposures, be knowledgeable of highly scored managers and strategies, review research coverage of the entire asset class universe, and occasionally conduct meetings and onsite visits. The committees are a forum for senior consultants to discuss and question manager research analysts regarding their evaluations of managers.

## Manager Recommendation Process

Utilizing the scores produced by our manager evaluation process, we work with our clients to make a final selection, as illustrated below:


Wilshire believes that a sound structured investment program is a top-down process that begins with asset allocation and is implemented through disciplined investment structure analysis and a rigorous manager selection process. The use of active management can serve two purposes. The first is to implement the plan objectives defined during the asset allocation and investment structure work. Secondly, investment managers can seek to provide excess returns, or alpha, through active management. Wilshire believes that the qualitative characteristics of a manager are as important, if not more important, than the historical track record of a strategy when selecting managers. We will further explore our philosophical views when we dig deeper into our scoring methodology.

The manager selection process begins by clearly defining the client's specific investment mandate and search criteria. Wilshire considers each client's unique circumstances in the selection of investment managers. We are particularly attuned to a client's risk tolerance and return expectations, and are careful to incorporate those objectives into the selection process. By clearly defining specific objectives for the mandate, Wilshire is better able to assist in narrowing the field to a list of qualified candidates. The list of qualified candidates will result from a combination of our deep knowledge of the asset class, quantitative screening of product statistics and a qualitative assessment of a manager's capabilities. During the final phase of the process, the client's investment committee often selects finalist candidates for interviews. Interviews typically consist of a formal presentation at the client or Wilshire's office. Finally, following the interviews of the finalist candidates, a selection is made by the client. During the hiring process, Wilshire's consulting team will work with the client and manager to develop sound investment guidelines.

To keep our clients informed of the latest investment manager developments, Wilshire distributes weekly Manager Research News Alerts. News Alerts provide the latest manager news with perspective and context from our manager research analysts.

**2. Describe your firm's methodology and source of data for analyzing and evaluating a potential manager's performance. Describe how risk is factored into this analysis. Discuss any attribution analysis that is performed.**

The following is a discussion of the steps involved in Wilshire's performance measurement process:

***Step 1: Data Transfer / Processing***

Wilshire utilizes the latest communications technology to access transaction and asset information from custodian banks. For most clients, the electronic transfer of information occurs just a few business days after month-end. Our extensive procedures assure prompt follow-up for missing data. These transactions and security specific data are then loaded into a client file on Wilshire's performance measurement system. We rely exclusively on custodian bank data for use in the calculation of both returns and portfolio characteristics.

Monthly rates of return are calculated by running each transaction file with time-weighted return software written by Wilshire. Wilshire's calculation procedure is consistent with the recommendations of the CFA Institute. Also, we have always followed the practices recommended by the Bank Administrative Institute in their 1966 recommendations. This consists of calculating monthly internal rates of return and linking those monthly returns in a time period to create a time weighted rate of return. The monthly calculation relies on daily postings of all transactions and uses market values for the beginning and the end of the month including all accruals.

In some cases, we will modify our monthly internal rate of return calculations for accounts with large cash flows. Our experience has shown that when cash flows are large relative to asset values, the potential for a distorted return can occur. In those situations we will value the portfolio intra-month and do an exact time weighted return calculation. In addition, we do not treat investment management fees as withdrawals, as do most managers. Fees are treated as an expense against the account; thus returns are calculated net of fees.

We utilize the time-weighted total return calculation described above to integrate all asset classes, regardless of whether the asset is U.S. or non-U.S. Our system calculates returns for all asset classes, simultaneously, in U.S. dollars. Return in local currency and the impact of exchange rates and currency hedge positions on the portfolio is also calculated for non-U.S. performance. Since we have price, dividend and income data for virtually every public U.S. security and over 7,000 non-U.S.

securities, we are able to calculate returns and value portfolios independent of the manager and trustee bank.

***Step 2: Portfolio Valuation and Reconciliation***

Wilshire reconciles with the custodian bank and the investment managers on a quarterly basis. We rely exclusively on custodian bank data for use in the calculation of both returns and portfolio characteristics. However, there are times when we uncover errors during our reconciliation process in pricing or issue characteristics. We follow the client's lead on the appropriate measures to follow. Some clients do not wish to manually adjust bank data because this presents inconsistent historical documentation (and instead, allow the mistake to be corrected in the subsequent period). Others insist that the bank provide a corrected statement for the current period.

Return reconciliation reports check to see that the quarterly return is consistent with the manager's reported return and if not, we will provide an explanation for the difference. The difference can be due to such things as pricing or security holding differences, or such issues as cash flows. This process is designed to identify any inaccuracies in reporting by the manager, the trustee, or Wilshire before reports are delivered to the client.

On a quarterly basis, Wilshire receives all manager asset listings and returns and compares these to those we have calculated using the master trust statements. Tolerance ranges have been established for each asset class for return variance with the manager. When returns fall outside this tolerance range, we will review individual holdings, prices, accruals, cash flows and fees to determine where the discrepancies lie. Through this process we have uncovered mistakes by either the master trustee, or the manager. Reconciliation reports are written up and provided to the client for their records.

Wilshire has been proactive in encouraging clients to adopt a pricing and portfolio characteristics policy between the custodian bank and the respective managers. Such a policy forces managers to reconcile with the custodian bank on a monthly basis and places the burden of proof upon the manager if mistakes are uncovered during this process. We have found that this additional step of scrutiny of bank data has created incentives for the banks to improve their pricing and issue modeling processes.

***Step 3: Audit and Performance Analysis Capabilities***

Our focus in analyzing return has been to compare the account return with the proper performance index and then to dissect the difference into sub-component returns to identify where the account is doing well and where it is not.

For **U.S. equity portfolios** we sub-divide performance into five components:

1. Style – This measures whether performance has been positively or negatively impacted by the style of the portfolio such as growth orientation, small stock orientation, or value orientation.
2. Timing – This measures whether cash within the account has added or subtracted from performance and risk.
3. Sector Weighting – This measures how well industry sectors (such as oil stocks) have been selected.
4. Stock Selection – This measures how well a manager has selected stocks within sectors.
5. Trading – This measures the impact of turnover activity on the account.

The sum of these five component returns equal the difference between the total account return and the performance objective, usually the Wilshire 5000 Total Market Index$^{SM}$, or another broad market index.

For a **fixed income portfolio** the sub-component return attributes are:

1. Contribution to Duration – This measures how much of the portfolio's interest rate risk exposure is coming from a particular issue or sector.
2. Issue / Sector Selection – This measures the value added / detracted by the manager at the issue or sector level versus the buy and hold return of the issue for the period.
3. Quality – This measures how much of the value added / detracted is coming from the issue or sector quality exposure.

For a **non-U.S. equity portfolio** we sub-divide the portfolio performance into seven return attributes. These are:

1. Timing – Again, referring to the use of cash.
2. Currency Hedging – This reflects the contribution of hedging currencies.
3. Currency Selection – This reflects the currency impact of over or underweighting a certain country market.
4. Country Market Selection – This measures the value added from overweighting good performing markets or underweighting bad performing markets.
5. Sector Selection – This is whether the account is correctly deployed toward better performing economic sectors.
6. Stock Selection – This refers to how well stocks are selected within sectors and countries.
7. Trading – This refers to intra-quarter transaction activity and its impact on portfolio performance.

Additionally, our non-U.S. returns both for the account and the indices are expressed in both dollars and local currency.

Wilshire also provides an assortment of risk and characteristic measures for each portfolio, as listed in the following table.

**U.S. Equity**
Industry sector weighting
Portfolio turnover
Portfolio earnings growth
Median market capitalization
Price / earnings ratio
Price / book ratio
Dividend yield
Return on equity
Beta
Debt / equity ratio
R Squared

**Non-U.S. Equity**
Sector weighting
Country weighting
Turnover
Portfolio earning growth
Median market capitalization
Price / earnings ratio
Price / book ratio
Dividend yield
Return on equity
Beta
Debt / equity ratio

**U.S. Fixed Income**
Maturity
Quality (Moody's or Standard & Poor's)
Average maturity
Sector allocation
Duration
Turnover

**Non-U.S. Fixed Income**
Duration (by country market)
Currency hedges (by country market)
Currency allocations (by country market)
Maturity
Duration
Country allocations

**Real Estate**
Transaction structure
Property type
Location

Wilshire can provide all standard market indices, plus custom indices, and blended combinations of any available benchmark. In addition, we are able to compare fund investment performance to a number of pre-specified universes. Finally, if a pre-specified database is not appropriate, Wilshire Consulting's staff can screen a unique universe of funds for comparison based on the client's criteria.

### *Step 4: Client Reporting*

Wilshire produces two written reports quarterly and two written monthly updates as part of its performance measurement service.

- Quarterly *Performance Analysis Report*
- *Executive Summary*
- Monthly *Flash Report*
- Wilshire *Perspectives*

The quarterly *Performance Analysis Report* is a substantial report containing summary and detailed information on the total plan and individual portfolio results. These reports contain audited and reconciled performance numbers for all managers and composites in the portfolio, in-depth analyses of managers and composites, portfolio asset lists, and flow of funds data. This performance report allows us to accomplish several things. First, we can compare total plan characteristics (participation and asset allocation) to objectives. Second, we can compare entire asset classes to objectives. Third, we can analyze each investment or investment manager.

Along with the quarterly performance report, each consultant prepares a quarterly *Executive Summary*. This report is distributed to clients and filters the results in the performance report and contains commentary on market conditions, our interpretation of the fund, asset class and manager performance, and our recommendations for the client. The length and content would be determined by the client's requirements. The goal of the executive summary is to give decision makers a brief evaluation of how well investment objectives are being met and which issues require either action or careful review.

Also, Wilshire generates a monthly *Flash Report*, if requested by the client. This report contains the individual fund returns versus their respective benchmarks on a multi-period (e.g., month, QTD, YTD, etc.) basis as well as the fund market values and allocations for the most recent period, and would only be a few pages long.

Additionally, monthly Wilshire *Perspectives* are distributed to clients electronically shortly after month-end. It contains in tabular and graphical format the major market index returns for all pertinent time periods. Wilshire also distributes quarterly Wilshire *Perspectives* that include our quarterly market commentary, as well as a section devoted to Wilshire's Manager Research Group.

**3. What qualitative factors do you evaluate when researching investment management organizations? How does your firm identify qualitative problems at investment organizations? How is historical performance used in your evaluation?**

Historical performance is not a predictor of the ability to maintain superior performance in the future. We look for managers who have differentiated investment processes, well defined philosophies, and superior resources to construct portfolios in a risk aware fashion along with a consistently good track record. That is why our manager research process is heavily weighted towards a qualitative assessment of the manager's capabilities. This process shifts the probability of success in favor of our clients.

The Manager Research Group scores managers on the following six qualitative components: Organization, Information, Forecasting, Portfolio Construction, Implementation and Attribution.

Wilshire places a lot of emphasis of understanding and evaluating risk as well as return. We have a number of different ways of measuring risk that is specific to individual asset classes. For equity managers, we regularly measure style and size exposures relative to the appropriate benchmark for the manager. We believe that this is the appropriate methodology to use for short term periods since returns-based style analysis, which is used by most of our peers, is only reasonable over periods of five years or longer.

For fixed income managers, we measure relative duration exposures as well as quality exposures, two of the greatest sources of return and risk for fixed income managers.

For non-U.S. equity managers, we look at relative country exposures and have developed holdings-based style analysis for these managers as well. This analysis is currently available in the Wilshire Compass and is being introduced to the performance books.

Another way we evaluate managers is by measuring their information ratios over time. Information ratios are excess return divided by excess risk versus the appropriate benchmark. Information ratios are the best means for evaluating whether a manager is achieving value-added commensurate with the risk they have assumed. An information ratio of 0.2 or higher is desirable. Wilshire always evaluates rolling time periods to discern trend in both value-added and relative risk exposures to fully understand a manager's skill.

## L Performance Review, Analysis, and Reporting

**1. Describe your firm's performance analysis philosophy and discuss the portfolio analytics your firm is capable of providing, including factors you consider to be critical in reporting performance and give reasons why this approach is superior to others. Is this service performed by your firm or through an outside vendor and can we access the information via the web? If you outsource, please identify the vendor and detail all quality controls in place.**

The Performance Measurement Group works on a proprietary Wilshire developed Windows-based software application delivered through a UNIX server to staff PC's. All aspects of Wilshire's performance reporting are geared towards enabling both the consultant and the client to understand how portfolios are meeting the client's objectives, from both return and risk perspectives. In many cases, we are able to structure the reporting to also ensure the client's investment policy and manager guidelines are being met sufficiently. Examples of exhibits which enable us to assess risk are our holdings-based style map, fixed income quality breakdown, and non-U.S.

equity country allocation analyses. We regularly utilize our Wilshire Compass system to evaluate client managers on multiple levels. Examples include our rolling skill and information ratio analyses, peer comparisons and fixed income style maps.

### 2. Does your firm meet the requirement that all performance reporting complies with CFA Institute Performance Reporting Standards?

As a leading consulting firm to the investment industry, Wilshire has been involved with the CFA Institute task force. Wilshire is familiar with the standards and applies them in our performance measurement process.

***Calculation of rates of return***

Wilshire would provide a monthly performance *Flash Report* and a quarterly investment performance analysis report. The performances reported in these reports are time-weighted rates of return. Time-weighted rates of return by definition are calculated to minimize the effect of cash flows into or out of the portfolio. According to the CFA Institute Performance Presentation Standards, quarterly, time-weighted rates of return are considered most meaningful for purposes of comparison and universe formation, and are the industry-standard for presentation of performance results. Wilshire currently use the Modified BAI Method to derive the rates of return on a monthly level, for each investment manager and composite. Quarterly time-weighted rates of return for each investment manager and composite are then derived by compounding monthly rates of returns.

***Reconciliation of rates of return***

Wilshire compares returns with the investment manager on a quarterly basis. Once a rate of return is calculated, the manager's return is obtained and compared. If the return difference between Wilshire and the manager is outside the tolerance range, then reconciliation is required. The tolerance ranges are as follows:

| | |
|---|---|
| U.S. Equity / Fixed Income | 20 basis points |
| Non-U.S. Equity / Fixed Income | 40 basis points |
| Index Fund | 5 basis points |
| Real Estate (private) | 10 basis points |

When returns fall outside this tolerance range, we will review individual holdings, prices, accruals, cash flows and fees to determine where the discrepancies lie. If an error has been made, we will work with the necessary parties to correct the error. If the difference is due to structural differences in the way the sources perform their calculations, we will include an explanation in the reconciliation. Reconciliation work is documented and can be provided to the client for their records.

**3. Do you reconcile your calculated performance with investment managers' and custodians' reports? If yes, please describe.**

Wilshire is willing to reconcile performance results with the fund's custodian if directed by the client. We routinely reconcile performance versus the client's managers and we currently reconcile on a monthly basis.

Monthly rates of return are calculated by running each transaction file with the time-weighted return software written by Wilshire. Wilshire's calculation procedure is consistent with the recommendations of the CFA Institute.

Tolerance ranges have been established for each asset class for return variance with the manager. When returns fall outside this tolerance range, we will review individual holdings, prices, accruals, cash flows and fees to determine where the discrepancies lie. If an error has been made, we will work with the necessary parties to correct the error. If the difference is due to structural differences in the way the sources perform their calculations, we will include an explanation in the reconciliation. Reconciliation work is documented and can be provided to the client for their records.

Wilshire has been proactive in encouraging clients to adopt a pricing policy between the custodian bank and the respective managers. Such a policy forces managers to reconcile with the custodian bank monthly and places the burden of proof on the manager if mistakes are uncovered during this process. We have found this additional step of scrutiny creates incentives for the banks to improve their pricing and issue modeling processes.

**4. What amount of input may the client have in the content and format of an investment performance evaluation report? Do you have the ability to customize reports for your clients?**

Wilshire's performance measurement system is proprietary, which allows us to conduct and report on customized analyses for our clients. Therefore, a client may have a significant amount of input into the content and format of their respective performance report. There is flexibility in producing non-calendar period results. Wilshire currently provides several clients with fiscal year period results depending upon their respective fiscal year cycles. Unless additional systems need to be developed or extensive programming is required, there is no additional cost for customizing client reporting.

**5. Who will be responsible for working with the Fund to design the standard performance evaluation report and for compiling the report each quarter?**

Biographies for the individuals who would be assigned to the Fund to provide client service and performance reporting are provided below:

**Jerry Hsu, Senior *Associate*.** Jerry Hsu, a Senior Associate with Wilshire Associates, is a member of Wilshire Consulting. He provides analytical and client service support to consulting clients of Michael Schlachter and Andrew Junkin.
Mr. Hsu joined Wilshire in 2000. Prior to his time at Wilshire, he worked in Merrill Lynch's International Private Client Group as a client service associate. Mr. Hsu earned a B.A. from the University of Southern California.

**Catherine G. Trzeciak, CPA, *Senior Associate***
Catherine G. Trzeciak, a Senior Associate with Wilshire Associates, is a member of Wilshire Consulting. She provides client service to a variety of pension, endowment and foundation clients, working out of the firm's Pittsburgh office.

Ms. Trzeciak joined Wilshire in 2000 as a member of the Wilshire Compass client service team. She transitioned to the consulting team in 2009 and brings more than 10 years of industry experience. Ms. Trzeciak earned a B.S. from Robert Morris College and an M.B.A. from the University of Pittsburgh.

**Ting Yeh, *Senior Associate***
Ms. Ting Yeh, a Senior Associate with Wilshire Associates, is a member of Wilshire Consulting. Ms. Yeh provides client service to the firm's consulting clients, including corporate, public, and endowment funds.

Ms. Yeh joined Wilshire in 2003 and brings more than 11 years of industry experience. Prior to her time at Wilshire Consulting, Ms. Yeh was a member of Wilshire Funds Management where she provided support for client service and new business development. She also has worked in private wealth management at an investment management firm. Ms. Yeh earned a B.A. in Economics from the University of California at Berkeley.

**Jason Samansky, *Senior Associate*.** Jason joined Wilshire in 2005 and supervises the Santa Monica and Denver performance analysts. Prior to joining Wilshire, Jason worked at MFS for five years. He earned his B.A. from Ithaca College.

**Alex Ford, *Senior Analyst*.** Alex joined Wilshire in 2008 and provides performance measurement data to consulting clients in support of Michael Schlachter and Andrew Junkin. Alex received a BSBA in Finance from the University of Colorado at Boulder.

### 6. What asset classes are tracked in your performance measuring system? How many managers are included within each asset category?

All asset classes are covered including alternative investments and traditional real estate, equity and fixed income, non-U.S. managers, and REIT managers. Currently, Wilshire's stock and bond manager databases cover over 7,000 investment products, almost 23,000 mutual funds, and approximately 5,000 hedge funds[1].

Our internally developed database also holds 389 hedge fund-of-funds investment products and 569 hedge fund products. We maintain separate databases of approximately 70 private equity fund-of-funds products and 50 private real estate managers. In addition, our real estate database has more than 100 managers.

We keep as many years of performance data as the client would like to show. For returns prior to Wilshire's engagement, we load returns and summary market values. For many clients, we have 20+ years of performance data on the system. For purposes of attribution, we maintain 5 quarters of full securities information on the system, meaning we could run detailed, holdings-based analysis that far back. If further historical work is required by a client related to portfolio analysis (attribution), we would use one of our Wilshire Analytics tools (Wilshire Atlas℠, Wilshire Axiom℠) to do the analysis.

**7. Describe the database/universe used by your firm for performance reporting. Is it an in-house product, or do you purchase the information? Describe any public fund components of this database as related to number and size of entities and amount of assets involved.**

Wilshire uses three main universes: the Wilshire Cooperative Universe Service℠ (WILCOP℠), the Wilshire Manager Universes (Wilshire Compass), and the Wilshire Trust Universe Comparison Service (Wilshire TUCS®).

**WILCOP** is used for comparisons of total funds and asset classes. The source of the returns in this database come from live portfolios of actual investment consulting clients of over 50 consulting firms, including Wilshire. The breadth of information allows for analysis broken down by plan type, asset class and fund size. Information is updated quarterly, using the same source of returns as the initial database. The total fund breakdown is as follows:

| PLAN TYPE | NUMBER OF PLANS |
|---|---|
| Corporate | 208 |
| Public Funds | 195 |
| Taft-Hartley and/or Jointly Trusted | 602 |
| Eleemosynary | 296 |
| Other Non-Profit | 131 |
| Individual/ Personal | 467 |

[1] External vendors provide hedge fund and mutual fund databases.

| | |
|---|---|
| Other | 71 |
| ***Total*** | ***1,970*** |

These plans fall into the following fund sizes:

| RANGE | NUMBER OF PLANS |
|---|---|
| > $1 Billion | 62 |
| $100 Million - $1 Billion | 303 |
| $20 Million - $100 Million | 416 |
| < $20 Million | 323 |
| ***Total*** | ***$531 Billion*** |

The assets of the funds described above are divided into the following number of plans:

| PLAN TYPE | NUMBER OF FUNDS |
|---|---|
| Defined Benefit | 554 |
| 401 (k) | 29 |
| Other Defined Contribution | 36 |
| Profit Sharing | 10 |
| Charitable Trusts | 18 |
| Endowment | 65 |
| Foundation | 100 |
| Other Eleemosynary | 13 |
| Health and Welfare | 85 |
| Personal Trust | 87 |
| Life Insurance | 5 |
| Property/Casualty Insurance | 8 |
| Other Insurance | 7 |
| Corporate Asset | 27 |
| Other Taxable | 12 |
| Other | 48 |
| ***Total*** | ***1,104*** |

**These plans are allocated into the following asset classes:**

| ASSET CLASS | NUMBER OF ACCOUNTS |
|---|---|
| U.S. Equity | 4,637 |
| Non-U.S. Equity | 1,166 |
| U.S. Fixed Income | 2,030 |
| Non-U.S. Fixed Income | 48 |
| Balanced | 530 |
| Cash and Cash Equivalents | 778 |
| Convertibles | 2 |
| Real Estate | 481 |

| ASSET CLASS | NUMBER OF ACCOUNTS |
|---|---|
| GIC/GACs | 55 |
| Mortgages | 54 |
| Private Placements, LBOs and Other | 271 |
| Venture Capital | 1,381 |
| Other | - |
| ***Total*** | ***11,433*** |

The great variety of information available in WILCOP allows Wilshire to compare clients' performance in many different ways: against funds similar in size and type, with similar or different asset allocation strategies.

**Wilshire Compass** is used for comparisons of total funds, asset classes and individual managers. The source for the Total Fund Module of Wilshire Compass is client portfolios as well as the composites of the top 100 funds in the country, and is used to generate asset class and total fund comparisons. The Manager Module of Wilshire Compass provides manager returns and portfolio characteristics, and is used to compare almost 5,000 individual managers. The returns for these universe comparisons come directly from the individual managers each quarter. In addition, Wilshire Compass includes data from Morningstar on more than 14,000 mutual funds. The total fund breakdown of Wilshire Compass is as follows:

| PLAN TYPE | NUMBER OF PLANS |
|---|---|
| Corporate / Private | 93 |
| Foundation/ Endowment | 54 |
| Public | 69 |
| ***Total*** | ***216*** |

These plans fall into the following fund sizes:

| RANGE | NUMBER OF PLANS |
|---|---|
| > $1 Billion | 85 |
| $100 Million - $1 Billion | 80 |
| < $100 Million | 51 |
| ***Total Plans*** | ***216*** |

**Wilshire TUCS®** is a complete performance reporting and portfolio analytics application designed specifically for the plan sponsor, and offered through participating custodial organizations. Started in 1978 and widely regarded as the industry standard benchmark for the performance of institutional funds, Wilshire TUCS provides custom peer-group universe rankings, attribution, and comprehensive portfolio analytics on the effects of risk, allocation and style. Wilshire TUCS is a cooperative effort between Wilshire Associates and custodial organizations who submit plan level holdings and performance data at the manager, composite and total fund levels. The total fund break down is as follows:

| SPONSOR TYPE | TOTAL FUNDS |
|---|---|
| Corporate | 210 |
| Public Funds- Federal & State Gov't | 76 |
| Public Funds- Local Gov't | 98 |
| Union | 143 |
| Educational Institutions | 56 |
| Religious Institutions | 39 |
| Hospital | 43 |
| Other Non-Profit | 74 |
| Individual/Personal | 91 |
| Undefined | 12 |
| ***Total*** | ***842*** |

| PLAN TYPE | TOTAL FUNDS |
|---|---|
| Defined Benefit | 445 |
| 401(k) | 16 |
| Other Defined Benefit | 19 |
| Taft-Hartley | 4 |
| Charitable Trusts | 16 |
| Endowment | 59 |
| Foundation | 122 |
| Other Eleemosynary | 9 |
| Health & Welfare | 38 |
| Personal Trust | 63 |
| Property/ Casualty Insurance | 3 |
| Other Insurance | 11 |
| Corporate Asset | 20 |
| Profit Sharing | 3 |
| Life Insurance | 2 |
| Undefined | 12 |
| ***Total*** | ***842*** |

| FUND SIZE ANALYSIS | NUMBER OF PLANS |
|---|---|
| > $10 Billion | 47 |
| $1 - $10 Billion | 139 |
| $500 - $1 Billion | 69 |
| $100 - $500 Million | 237 |
| < $100 Million | 354 |
| ***Total Plan Assets*** | ***$2.48 Trillion*** |

As described above, Wilshire has many different tools with which to compare the performance of our clients' investment structures at many levels. By having a large variety of comparison universes and proprietary tools at the disposal of our consulting teams, we provide clients relevant and reliable information with which to compare their fund's performance at the total fund, asset class and peer level all the way down to individual managers.

Peer groups are updated automatically every month upon receipt of manager information (Wilshire Compass) and plan sponsor information (Wilshire TUCS and WILCOP). Plan sponsor data in Wilshire Compass is updated once quarterly. We will disclose the constituent manager data to clients. Constituent plan sponsor data in Wilshire Compass can also be provided with the sponsor names masked.

**8. Describe the performance attribution analysis you use and provide a sample report.**

Wilshire is one of the industry's leading providers of analytical products, and as such, all of our analysis for clients is prepared using systems that we designed. Wilshire's performance system is able to provide clients with in-depth attribution analysis from the plan level, on down to each asset class individually. At the aggregate portfolio level, our analysis will provide the Fund with a comparison of its performance with that of a predetermined passive alternative. This is usually based on the "policy portfolio," which would represent the plan's normal asset allocation. Alternatively, it could be based on any other policy portfolio, such as the average allocation of a chosen peer group. Whichever comparison portfolio is chosen, the analytical principles applied are the same as for the asset class and manager analysis systems which are described in greater detail, below.

At the asset class level we have the capability to aggregate all sub portfolios to develop a composite profile of the entire asset class with respect to characteristics. We can perform an attribution analysis against a benchmark for the asset class. This can also be done on the individual portfolio level. These analyses provide information to explain why performance is falling short or exceeding objectives, whether the structure of the asset class is appropriately diversified, exhibits the appropriate level of risk in the aggregate, and whether the resulting manager portfolios meet the stated objectives.

For a **U.S. equity portfolio** we sub-divide performance into five components:

- *Style* – This measures whether performance has been positively or negatively impacted by the style of the portfolio such as growth orientation, small stock orientation, or value orientation.
- *Timing* – This measures whether cash within the account has added or subtracted from performance and risk.
- *Sector Weighting* – This measures how well industry sectors (such as oil stocks) have been selected.
- *Stock Selection* – This measures how well a manager has selected stocks within sectors.

- *Trading* – This measures the impact of turnover activity on the account.

The sum of these five component returns equal the difference between the total account return and the performance objective, usually the Wilshire 5000 Total Market Index$^{SM}$, or another broad market index.

For a **fixed income portfolio** the sub-component return attributes are:

- *Contribution to Duration* – This measures how much of the portfolio's interest rate risk exposure is coming from a particular issue or sector.
- *Issue / Sector Selection* – This measures the value added / detracted by the manager at the issue or sector level versus the buy and hold return of the issue for the period.
- *Quality* – This measures how much of the value added / detracted is coming from the issue or sector quality exposure.

For a **non-U.S. equity portfolio** we sub-divide the portfolio performance into seven return attributes. These are:

- *Timing* – Again referring to the use of cash.
- *Currency Hedging* – This reflects the contribution of hedging currencies.
- *Currency Selection* – This reflects the currency impact of over or underweighting a certain country market.
- *Country Market Selection* – This measures the value added from overweighting good performing markets or underweighting bad performing markets.
- *Sector Selection* – This is whether the account is correctly deployed toward better performing economic sectors.
- *Stock Section* – This refers to how well stocks are selected within sectors and countries.
- *Trading* – This refers to intra-quarter transaction activity and its impact on portfolio performance.

Additionally, our non-U.S. returns both for the account and the indices are expressed in both the reporting currency (dollars for U.S. clients) and local currency.

In our **non-U.S. fixed income** performance section we compare how the actual account returned against the appropriate benchmark and then sub-divide the return into the following five performance attributes:

- *Currency Hedging* – Measures how well currency hedging has contributed to the portfolio's performance.
- *Currency Selection* – This represents the contribution of (under) overweighting currencies as a result of country allocation.

- *Country Market Selection* – This represents the contribution of (under) overweighting certain country fixed income markets.
- *Duration* – This measures the duration decision within each country.
- *Other* – This represents transaction activity for the quarter.

For complex portfolios that include extensive futures and options positions, we will use Wilshire Atlas$^{SM}$ and Wilshire Axiom$^{SM}$, which have fully integrated these complex securities into the attribution and risk analysis. A sample Quarterly Performance Report is provided **under separate cover**.

**9. Describe your capabilities in the production/interpretation of securities lending.**

Wilshire has the resources and capabilities to assist clients in evaluating securities lending programs. Our resources allow us to review the depth and experience of the staff, the loan volume and sources of income, the indemnification program, the collateral investment capabilities and options, the risk control procedures, the quality and timeliness of reporting, and the ability to support a third party lending program, if applicable. In addition, we evaluate the experience of the securities lending agents across a variety of market conditions in order to determine their ability to manage in a variety of market conditions.

Wilshire has worked with its client to evaluate the efficacy of securities lending programs and their future use as a part of each client's investment program. We have not issued a firm-wide "ruling" on whether clients should or should not use securities lending, as each client has its own set of unique circumstances. As always, we work to find the right answer for each particular client. As such, some clients have chosen to continue securities lending programs, some have chose to limit their programs, and others have chosen to terminate them.

## M Subcontracting

**1. If your firm uses the services of a subcontractor, please identify the subcontractor and describe the skills and qualifications of the subcontractor and its individual employees.**

Wilshire does not intend to use a subcontractor for the services described in this RFP.

**2. Describe the contractual arrangement contemplated with each subcontractor and describe generally the control/delegation of responsibilities anticipated in that arrangement.**

Not applicable.

## N Insurance and Liability

**1. Please describe the levels of coverage for errors and omissions insurance and any fiduciary or professional liability insurance your firm carries. Is the coverage on a per client basis, or is the dollar figure applied to the firm as a whole? List the insurance carriers and provide evidence of professional liability insurance.**

| Type of Policy / Bond | Aggregate Liability Limit | Insurer | A.M. Best Rating |
|---|---|---|---|
| ***Business Personal Property (Business Package)*** | $12,535,000 | Federal Insurance Co. | A++ |
| ***General Liability & Employee Benefit Liability*** | $2,000,000 | Federal Insurance Co. | A++ |
| ***Electronic Data Processing (EDP) (Computer Property Incl Voice Communication Systems - 6 locations)*** | $4,550,000 | Federal Insurance Co. | A++ |
| ***Employee Benefits Errors and Omissions*** | $1,000,000 | Federal Insurance Co. | A++ |
| ***Commercial Excess Liability (Umbrella)*** | $4,000,000 | Federal Insurance Co. | A++ |
| ***Fidelity Bond (a.k.a. Employee Dishonesty, Financial Institution Bond, Stockbrokers Blanket)*** | $1,000,000 | Federal Insurance Co. | A++ |
| ***Workers Compensation Employers Liability*** | $1,000,000 | Federal Insurance Co. | A++ |
| ***Investment Advisors Professional Liability (E&O/D&O)*** | $10,000,000 | St. Paul Travelers | A |

## O Fee Schedule

**1. Provide, in detail, the fees your firm would charge for investment consulting services. Fees must be proposed as "all in." The Fund has extensive investments across all three major areas of alternatives. Please propose a tiered fee schedule as follows:**

- **Traditional Asset Consulting (excluding alternative assets),**

Wilshire believes the highest level of general consulting services to clients can best be achieved with long-term relationships where we have an opportunity to fully understand and appreciate the objectives, investment risk tolerance, legal obligations, and decision-making dynamics of our clients. Our experience has verified our belief that full-retainer consulting arrangements are most effective and beneficial for both parties. Therefore, Wilshire's standard fee structure is an annual retainer that includes all of the stated services and many special services that periodically arise. Full-retainer consulting relationships are the most economical way for clients to take advantage of our capabilities and resources.

**The consulting services in the full-retainer relationship include:**

- Review of current investments
- Asset allocation studies, including asset/liability valuation analysis
- Assistance with development and maintenance of investment policies
- Performance of asset class analysis and structuring
- Assistance in working with investment managers
  - Conducting investment manager searches and making recommendations for any changes, including additions/removals/replacements
    - Public market managers
    - Alpha transfer programs
    - Commingled real estate
    - Fund of funds private equity
    - Fund of funds hedge funds
  - Investment manager fee negotiation
  - Assistance with custodial and other vendor searches
  - Structuring of objectives and guidelines
  - Participating in investment manager meetings
- Attendance at meetings with the investment committee and /or Board
- Reporting of quarterly performance measurement
- Provision of access to Wilshire's topical research reports
- Participation in Wilshire's annual client conference
- Customized client education

For the Fund, our proposed annual retainer fee is $295,000, plus reasonable travel expenses for meetings, manager searches and other related services. This fee is subject to a one year minimum time period and is guaranteed for that time period. Wilshire builds an annual inflation escalator into our retainer fee. Therefore, our annual fee is adjusted each year (on the month-end closest to the contract anniversary) to reflect the change in the prior 12-month level of the Consumer Price Index ("CPI").

Wilshire's annual retainer fee is all inclusive. As a result, there would be no separate non-recurring fees or charges associated with account set-up or transition.

**i. Under this structure, how much would your firm charge for a "one off" alternative asset manager search? How much for a "one-off" prudent letter report on an assigned alternatives manager? Traditional plus direct hedge funds?**

Direct hedge fund manager searches and due diligence are services provided by Wilshire Funds Management, a business unit of Wilshire. Fees range from $10,000 per manager for a quantitative & qualitative report; $25,000 per manager for a full operational due diligence report; or a customized fund of funds portfolio for 50 basis points on assets.

- **Real estate,**

For real estate consulting, our proposed annual retainer fee is $150,000, plus reasonable travel expenses for meetings, searches and other related services. This fee is subject to a one year minimum time period and is guaranteed for that time period. Wilshire builds an annual inflation escalator into our retainer fee. Therefore, our annual fee is adjusted each year (on the month-end closest to the contract anniversary) to reflect the change in the prior 12-month level of the Consumer Price Index ("CPI").

- **Private equity,**

Wilshire Private Markets ("WPM"), a business unit of Wilshire, has extensive experience investing in private equity on a global basis. Across WPM's five offices, our investment due diligence is led by local teams in North America, Europe, Asia and Australia, allowing us to combine a global perspective with local market presence. WPM seeks to create high performing diversified private equity solutions that prudently manage portfolio risk, compensate investors for illiquidity and meet or exceeded our clients' risk-adjusted return expectations.

Wilshire's philosophy is that client relationships are best served using a team approach, with specialized support provided by specialized resources within the organization. The relationship will be served by a team of Wilshire professionals with Marc Friedberg, CFA, Managing Director, serving as the primary contact. In addition to Marc, it is expected that San Antonio Fire & Police would regularly interact with senior investment professionals across the division depending on the area of focus.

While any number of Wilshire professionals will work on various facets of the required services, Marc will be the focal point for delivery of services related to the Private Markets portfolio. Marc will be responsible for coordinating the necessary resources within Wilshire Private Markets for specific deliverables. An additional internal layer of oversight will be overseen by Wilshire Private Markets' Investment Committee. This investment committee meets weekly and addresses sourcing, due diligence, portfolio construction, monitoring, and legal/amendment reviews.

**Proposal**

**À La Carte Advisory Services**

Wilshire Private Markets offers the following services as part of the proposed relationship.

1. Deal Sourcing (non-discretionary)
2. Research and Due Diligence
    - Private equity G.P.s
3. Attendance at Wilshire Annual Meeting / Conference
4. Dedicated senior investment professional assigned to the relationship

Wilshire is proposing a $27,500 fee per assignment for full due diligence on Private Equity General Partnerships. (A sample due diligence packet is included in the **Appendix, Tab 5**).

We recognize that many plan sponsors have sophisticated investment professionals on staff and maintain strong internal due diligence capabilities. Wilshire offers a "Focus Report" which is a scaled down version of the complete due diligence investment research report that conveys a more general description of the opportunity, organization, track record, and any issues that we feel are critical to the investment thesis. This report identifies the key investment merits and the primary areas of concern that may need a deeper level of due diligence.

Wilshire is proposing a $15,000 fee per assignment for this level due diligence on Private Equity Partnerships.

**Full Retainer Advisory Solution**

Wilshire believes the highest level of services to clients can best be achieved with long-term relationships where we have an opportunity to fully understand and appreciate the objectives, investment risk tolerance, legal obligations, and decision-making dynamics of our clients. Wilshire's standard fee structure is an annual retainer that includes all of the stated services and many special services that periodically arise. We believe full-retainer advisory relationships are the most economical way for clients to take advantage of our capabilities and resources. We believe this solution would meet the needs and objectives of the private equity allocation while serving as an extension of staff resources to efficiently assist with the management and monitoring of the portfolio.

The alternative consulting services in the full-retainer relationship include:

- Private Equity Investment Policy Development
- Strategic Planning and Investment Pacing Studies
- Deal Sourcing
- Research and Due Diligence
  - Private equity G.P.s
- Performance Measurement and Reporting
- Portfolio Monitoring
  - Review of capital calls and distributions
  - Review amendments
  - Attend G.P. Annual Meetings
  - Advisory Board Participation
- Topical Alternatives Research
- Customized Educational Workshops
- Attendance at Wilshire Private Markets Annual Meeting / Conference

A comprehensive, all inclusive, full retainer fee would be determined based on a more complete understanding of the needs and objectives of San Antonio Fire & Police's private equity program.

**2. Identify the period of time the proposed fees will remain in effect.**

Wilshire's fee is subject to a one year minimum time period and is guaranteed for that time period.

**3. Does your firm's proposed fee arrangement consist of any incentive or contingent payments? If so, please describe the manner of calculation in detail.**

No, Wilshire's fee does not consist of any incentive or contingent payments.

## P APPENDICES

**1. Appendix A - FORM ADV Parts I and II: Please attach a copy of the current Form ADV Parts I and II of your firm and all other registered investment advisers (whether SEC or state registered) that are affiliated or related to your firm.**

Our Form ADV Part I, IIA Brochure which includes Wilshire's Privacy Policy and Form ADV Part IIB Brochure Supplement is provided in the **Appendix, Tab 1**).

**2. If you are hired, will you acknowledge in writing that you have a fiduciary obligation as an investment adviser to the plan while providing the consulting services we are seeking?**

Yes. We have always thought of ourselves as fiduciaries to our investment consulting clients and will be happy to sign a document indicating that we have a fiduciary obligation to the plan.