

Dahab Associates, Inc.  
Request for Proposal – 2016

**Small Cap Core**

**Franklin Regional Retirement System**

Company Name	Federated Investors, Inc.
Investment Style	Small Cap Core
Product Name	MDT Small Cap Core Strategy
Principal Address	Oliver Street Tower 125 High Street, 21 <sup>st</sup> Floor Boston, MA 02110
Telephone Number	(617) 235-7100
Email Address	<a href="mailto:zbono@federatedinv.com">zbono@federatedinv.com</a>
Individual Completing this RFP	Zachary Bono
Position	RFP Business & Research Analyst
Mailing Address (if different from above)	Federated Investors Tower 1001 Liberty Avenue Pittsburgh, PA 15222
Telephone Number (if different from above)	(412) 288-6723
Fax Number	(412) 288-1093
Date Completed	11/2/2016

Firm Name	Federated Investors, Inc.
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## Summary

### General Information:

Firm Name	Federated Investors, Inc.
Product Name	MDT Small Cap Core Strategy
<b>City, State</b> of firm's headquarters	Pittsburgh, Pennsylvania
Name of Parent Company, or "Independent"	Federated Investors, Inc.
Tax-Exempt Assets Under Management	\$99.0B
Total Assets Under Management	\$364.3B
Year Founded	1955
Year Registered	1956
Contact Name	Paul J. Zuber, CIMA, Senior Vice President
Contact Number	(732) 890-9686
Contact Email	<a href="mailto:pzuber@federatedinv.com">pzuber@federatedinv.com</a>

Which of the following types of products are available for this search? You may offer multiple product types if you choose. Indicate with an "X." There will be room to elaborate on the product offerings elsewhere in this document.

This selection should indicate that any minimum account sizes for the product are either met or waived for this search.

Separate Account	x
Commingled Funds	
Mutual Fund	x

**Equity Product Information:**

Please provide the following figures for a representative account, with the data as of **the end of 3rd Quarter 2016** only.

**Do not submit the following data for any other quarter, even if footnoted as such.**

It is acceptable to submit preliminary data, if necessary.

Only provide statistics for indicated time-periods.

**Do not put** “since inception” statistics in lieu of the requested time-period.

If statistics for a given time period are not available, leave the response area blank.

All statistics must be **based on quarterly** numbers, never monthly, even when the question isn’t explicit in that regard.

All statistics should be made with regard to the following benchmark:

**Russell 2000**

Do not submit statistical data compared to any other benchmark, even if your product is traditionally benchmarked against a different index, **even** if you choose to indicate it as such.

Product Name	MDT Small Cap Core Strategy
Style (Core, Growth, Value) Please answer as to your firm’s specific classification of this product.	Core
Typical Number of Securities Held	170-200
Portfolio Turnover, 12-month rolling (%)	178.10%
P/E of typical portfolio- Estimate	14.6x
P/E of typical portfolio- Trailing	16.0x
5-year information ratio	1.00
5-Year Tracking Error	5.16%
5-year Upside Capture Ratio	119.13%
5-year Downside Capture Ratio	70.10%
5-year R-squared statistic	0.90
Strategy Inception	03/01/2004
Benchmark Used for Above and below statistics (Must be the required benchmark as indicated)	Russell 2000
Benchmark for product	Russell 2000
Total Assets In This Strategy	\$82mm
Soft/Hard Close Amount for the Strategy	Due to our current asset size, we have not determined a soft/hard close amount for the strategy. If we were to define a capacity limit, we would anticipate a threshold of approximately \$1.5-2.0B; however, over time and as assets would

approach that figure, we would continue to evaluate the efficacy of our models, adjusting constraints as necessary. In no case, however, will we allow growth of assets to compromise the alpha we intend to generate on behalf of our investors.

	<b>3-Year</b>	<b>5-Year</b>
Alpha	5.36%	5.13%
Batting Average (% of quarters beating benchmark)	58%	70%
Standard Deviation	13.95%	17.65%
Beta	0.94	1.01

**Firm Affiliation**

- |    |   |     |
|----|---|-----|
| 1. | Is the firm independent?  | Yes |
| 2. | Is the firm registered under the Investment Advisors Act of 1940? | Yes |
| 3. | Is the firm minority owned? If so, what percent?                  | No  |
| 4. | Is the firm women owned? If so, what percent?                     | No  |
| 5. | Is the firm a subsidiary of, or related in any way to:            |     |

A brokerage firm	Yes. Federated Investors, Inc. is the parent of registered broker-dealer Federated Securities Corp. Federated does not trade through this broker-dealer, however.
Insurance company	No.
A bank	Yes. Federated Investors Trust Company
Other	No.

- |    |  |                           |
|----|--|---------------------------|
| 6. | What is the name of the parent company?                        | Federated Investors, Inc. |
| 7. | Please provide details of the ownership structure of the firm. |                           |

Federated Investors, Inc. is publicly traded, but privately controlled. Federated has shares of both Class A Common Stock, no par value per share (the "Class A Common Stock"), and Class B Common Stock, no par value per share (the "Class B Common Stock"), issued and outstanding. The Class B Common Stock is listed on the New York Stock Exchange ("NYSE") under the symbol "FII". Except under certain limited circumstances, the entire voting power of Federated is vested in the holder of the outstanding shares of the Class A Common Stock. All of the outstanding shares of Class A Common Stock are held by a Voting Shares Irrevocable Trust, dated May 31, 1989 (the "Voting Trust"), the trustees of which are John F. Donahue, his wife, and his son, J. Christopher Donahue. All executive officers and current directors as a group (13 persons), as of February 29, 2016, represent 10.5% ownership. We estimate that approximately 15% is held by employees and family members.

- |    |  |  |
|----|--|--|
| 8. | If the firm is related in any fashion (financially or otherwise) to any other entity, explain. |  |
|----|--|--|

Federated Investors, Inc. has nine advisory subsidiaries:

- Federated MDTA LLC, *the advisory company solely providing investment management services to the client account.*

- Federated Advisory Services Company
- Federated Equity Management Company of Pennsylvania
- Federated Investment Counseling
- Federated Investment Management Company
- Federated Investors UK
- Federated Global Investment Management Corp.
- Federated Securities Corp., which is dually registered as an investment advisor and as a broker-dealer
- Passport Research, Ltd. (which is jointly owned with Edward Jones)

Federated Investors, Inc. has other wholly owned operating companies, some of which provide ancillary services relating to Federated Investors, Inc.'s investment management business.

## General Background Information

1. Please indicate the types of accounts that your firm currently manages:

Domestic Equity	x	Socially Conscious	x
Fixed Income	x	Hedge Fund of any type	x
Balanced	x	Institutional Mutual Funds	x
International	x	Retail Mutual Funds	x
Global	x		

2. Please provide the location and function of each of the firm's offices.

Federated is headquartered in the Pittsburgh, Pennsylvania, office, which houses the majority of our investment personnel; however, our Boston, Massachusetts, office is the home of Federated's MDT Advisers investment management team and is the office from which investment services would be provided for this account. The firm also houses investment personnel in Rochester, New York, and New York, New York. Administrative and/or sales personnel are located at other sites, including, New York, New York; Rochester, New York; Boston, Massachusetts; Houston, Texas; Warrendale, Pennsylvania; Canonsburg, Pennsylvania; Frankfurt, Germany; London, United Kingdom; and Dublin, Ireland.

The following chart outlines the locations of our offices and their functionalities. Additional employees reside throughout the United States, Canada, and Japan.

Office Location	Office Description
Boston, Massachusetts	Office location of Federated subsidiary, Federated MDT Advisers, who would provide investment management services for this account. The Federated MDT team provides quantitative investment management services to institutional and private clients. Also location for Massachusetts Municipal Depository Trust (MMDT) operating staff. MMDT is the Massachusetts Treasury-sponsored local government investment pool.
Pittsburgh, Pennsylvania	Federated's corporate headquarters houses the majority of investment personnel, as well as certain administrative and sales personnel.
Warrendale, Pennsylvania	Federated's client servicing headquarters and location of other operational and administrative departments.
Canonsburg, Pennsylvania	Federated's alternate data center site.
New York, New York	This office houses Federated Global Investment Management Corp. The Federated Global team that resides in this office provides investment management services to a variety of equity portfolios including: international; all-cap/large-cap/mid-cap/small-cap value; balanced; moderately aggressive; and income-oriented.
Rochester, New York	Office location of Federated's subsidiary division, Federated Clover Investment Advisors. The Federated Clover team provides equity value investment management services to institutional and private clients.
Houston, Texas	Office location of Federated's TexPool operation. (TexPool, under the management of Federated, is one of the country's largest local government investment pools.)
Frankfurt, Germany	Office location of Federated's subsidiary, Federated Asset Management GmbH. Federated Asset Management GmbH is the office responsible for marketing and client servicing for investment management services in Europe.
Dublin, Ireland	Federated International Management Limited offers a range of funds

	and investment services to financial intermediaries and institutional investors located throughout Europe. Federated International is the manager of Federated International Funds Plc, a UCITS umbrella fund family.
London, England	Headquarters for our Trade Finance Fixed Income Strategy, as well as institutional liquidity and fixed income products distributable in Europe.

3. Please give a brief history of the firm.

Founded in 1955, Federated Investors, Inc. is a publicly-held, privately-controlled corporation based in Pittsburgh, Pennsylvania, USA. With 122 funds and a variety of separately managed account options, Federated is a client-driven, multi-product, and multi-strategy investment manager with \$367B in managed assets as of June 30, 2016. The firm provides comprehensive investment management to approximately 8,400 institutions and intermediaries including more than 4,000 public entities on a direct basis and others through financial distributors. In addition, our firm maintains a particularly strong presence in the public sector where our relationships span state, county, and/or local levels of government in all 50 states.

The firm grew rapidly in the following decades after its founding, through the management and delivery of investment products to bank trust departments, specifically high-quality, structured fixed-income mutual fund products in the short and intermediate area of the yield curve.

In 1969, the firm created the first mutual fund to invest exclusively in U.S. government securities; in 1974, one of the first money market funds; and in 1976, the first institutional-only money market fund as well as one of the first municipal bond funds. Since 1973, Federated has provided customized separate account management to institutional clients, including tax-exempt entities.

Beginning in the 1980s, Federated expanded its investment products and value-added services for broker/dealers, financial intermediaries and institutional investors to include separate account strategies, sub-advised strategies and mutual funds that span the equity, fixed-income and cash market sectors.

In the last decade, Federated's diversified product line allowed the company to withstand the fallout of the bursting technology bubble. More recently, our highly regarded money market products enabled us to provide the cash management services that our clients needed during the challenging markets in 2008. Overall, the variety of investment solutions that Federated offers our clients positions the company to sustain strong performance. For additional information about our firm, including a year-by-year historical timeline, which features additional, firm acquisitions, please refer to our website at [FederatedInvestors.com](http://FederatedInvestors.com), and click on "About Federated."

4. When was the firm founded?

October 1955

5. When was it registered as an investment advisor?

January 18, 1956

6. When did the firm begin to manage tax exempt accounts?

1973

7. Describe the level of error and omission insurance coverage the firm carries.



Type of Policy	Coverage Limit	Insurance Carrier
Errors & Omissions / Director's & Officers' Liability	\$60mm	Endurance & Others
ERISA Fiduciary Liability	\$75mm	Hartford and Others
Fidelity Bond (Mutual Funds)	\$50mm	Great American and Others
Umbrella Liability	\$45mm	Travelers Property Cas. Co. of Amer. and Others
Employment Practices Liability	\$15m	Endurance Specialty Holdings, Ltd.
Workman's Compensation	Statutory	Farmington Casualty Co. (Travelers)
General Liability	\$1mm/\$2mm	The Phoenix Insurance Co. (Travelers)
Fidelity Bond (FII & Operating Cos.)	\$25mm	Great American

8. Are you now the subject of a SEC or other regulatory body sanction? If so, explain.

No.

9. Has the firm ever been subject to a SEC or other regulatory body sanction? If so, explain.

Federated Investors, Inc., the parent company of the advisers and distributor of the Federated complex of funds, like many other mutual fund companies in September 2003, received detailed requests for information on shareholder trading activities in the funds from the Securities and Exchange Commission (SEC), the New York State Attorney General (NYAG), and the National Association of Securities Dealers.

On November 28, 2005, Federated announced that it entered into settlement agreements to resolve the past mutual fund trading issues. Specifically, the SEC and NYAG settled proceedings against three Federated subsidiaries involving undisclosed market timing arrangements, and late trading. Under the terms of the settlements, Federated paid for the benefit of fund shareholders a total of \$72 million, of which \$45 million is a civil penalty. In addition, Federated agreed to reduce the investment advisory fees on certain Federated funds by \$4 million per year for five years, based upon effective fee rates and assets under management as of September 30, 2005. These amounts are in addition to the approximately \$8.0 million Federated paid to certain funds in 2004 in connection with these matters, as determined by an independent consultant. Federated was also censured and ordered to cease and desist from certain conduct, and agreed to comply with certain undertakings.

On October 22, 2003, November 25, 2003, February 3, 2004, January 24, 2005, and November 28, 2005, Federated issued press releases that provide additional information about these matters and actions it has taken. The press releases are available in the "About Federated" section of Federated's website, [www.FederatedInvestors.com](http://www.FederatedInvestors.com), and are also available in paper copy on request.

10. Discuss, in detail, any litigation brought against the firm in the last five years.

Since October 2003, Federated and related entities (collectively, "Federated") were named as defendants in several class action lawsuits that were purportedly filed on behalf of people who purchased, owned and/or redeemed shares of Federated-sponsored mutual funds during specified periods beginning November 1, 1998. The suits were generally similar in alleging that Federated engaged in illegal and improper trading practices including market timing and late trading in concert with certain institutional traders, which allegedly caused financial injury to the mutual fund shareholders. Without admitting the validity of any claim, Federated reached a final settlement with the Plaintiffs in these cases in October 2010.

Federated entities were also named as defendants in several additional lawsuits that were consolidated into a single action alleging excessive advisory fees involving a single Federated equity fund. Without admitting the validity of any claim, Federated reached a final settlement with the Plaintiffs in these cases in April 2011.

Additional lawsuits based upon similar allegations may be filed in the future. The potential impact of such lawsuits is uncertain. Although the settlements represented above had no adverse effect on the Funds, there can be no assurance that such suits, ongoing adverse publicity and/or other developments resulting from the allegations in such matters will not result in increased Fund redemptions, reduced sales of Fund shares or other adverse consequences for the Funds.

Federated Investors, Inc. (including its subsidiaries) has claims asserted against it from time to time, including in the ordinary course of business. Please refer to the latest Form 10-Q and Form 10-K filings for Federated Investors, Inc. for further information regarding litigation. (These documents are available on Federated's website: <http://www.federatedinvestors.com/FII/about/secfilings/leaf.do>.) Federated does not believe that a material loss related to these claims is reasonably estimable. These claims are subject to inherent uncertainties. It is possible that an unfavorable determination will cause a material adverse impact on the reputation, financial position or results of operations and/or liquidity of Federated Investors, Inc. (or its subsidiaries) in the period in which the effect becomes reasonably estimable.

Federated Investors, Inc., parent company of Federated Clover, has been named in a lawsuit that is a commercial dispute between Federated Investors, Inc. and the former owner of the Federated Clover Investment Advisors business, which is a division of Federated Global Investment Management Corp., over unearned contingent purchase price. No investment personnel are parties to this lawsuit. This lawsuit also does not involve Federated Clover's investment management services and will not affect the ability of Federated Clover to provide the services. Federated believes the claims this lawsuit raises to be baseless and intends to vigorously defend this lawsuit. Although this lawsuit does not directly involve Federated Clover, its principals or officers, and has no effect on its ability to provide investment management services, we report this out of an abundance of caution.

**11.** Please provide details on the financial condition of the firm.

Federated's equity assets were a record \$64.1B at September 30, 2016, up \$12.1B or 23 percent from \$52.0B at September 30, 2015 and up \$2.2B or 4 percent from \$61.9B at June 30, 2016.

Federated's 3<sup>rd</sup> Quarter 2016 Earnings Report provides the following details on the firm's financial condition:

- (EPS) of \$0.54 for Q3 2016, compared to \$0.42 for the same quarter last year on net income of \$55mm for Q3 2016, compared to \$44mm for Q3 2015.
- YTD 2016 EPS of \$1.48, compared to \$1.17 for the same period in 2015 on YTD 2016 net income of \$153mm compared to \$122mm for the same period last year.
- Federated's board of directors declared a dividend of \$1.25 per share. The dividend, which will be paid from Federated's existing cash balance, is considered an ordinary dividend for tax purposes and consists of a \$0.25 quarterly dividend and a \$1.00 special dividend.

YTD Q3 2016 revenue increased by \$171 million or 25 percent compared to YTD Q3 2015, primarily due to a decrease in voluntary yield-related fee waivers. The increase in revenue was partially offset by a decrease in revenue from lower average fixed-income assets.

**12.** Provide a breakdown of assets by type of Investment Strategy. (for example, Mid Cap Growth, Core Fixed

(Income, Emerging Markets, etc.) You may add additional rows to this table as needed.

Investment Strategy	# of Accounts	\$ Value
<b><u>Fixed Income Assets</u></b>		
Multi-Sector	635	\$18.6B
Clover Fixed Income (Multi-Sector)	19	\$24mm
U.S. Government	6	\$1.6B
Mortgage-Backed	6	\$3.7B
Corporate	11	\$4.3B
High Yield	16	\$12.8B
Alternative Fixed Income	4	\$210mm
Ultra-short Fixed Income	4	\$4.4B
International/Global Fixed Income	9	\$1.6B
Emerging Markets	2	\$527mm
Trade Finance	5	\$612mm
Liquidation/Surveillance Pools	1	\$69mm
Pooled GIC/Stable Value	1	\$5.1B
Tax-Free Fixed Income	15	\$6.1B
<b><u>Money Market</u></b>		
Corporate/Prime	15	\$57.3B
Tax-Free Money Market	17	\$6.4B
U.S. Government Money Market	13	\$180.7B
Sterling Denominated	1	\$3.7B
<b><u>Balanced And Asset Allocation</u></b>		
Domestic Balanced	3	\$4.2B
Managed Risk	6	\$816mm
MDT Balanced	1	\$137mm
Clover Moderately Aggressive	113	\$164mm
Clover Income Emphasis	16	\$19mm
Clover Other Balanced	142	\$173mm
International Balanced	2	\$154mm
<b><u>Equity Assets</u></b>		
Strategic Value	15,719	\$21.0B
Large Cap Growth	2	\$2.9B
Growth & Income	7	\$1.2B
Mid Cap Growth	2	\$5.4B
Small Cap Growth	1	\$675mm
International Equity	219	\$2.9B
Global Equity	6	\$1.3B
Alternative Equity	2	\$605mm

Leveraged Company Stock	1	\$2mm
Clover Concentrated Equity	8	\$6mm
Clover All Cap Value Equity	340	\$229mm
Clover Large Cap Value	1	\$675mm
Clover Mid Cap Value	3	\$3mm
Clover Small Cap Value	20	\$1.3B
MDT Large Cap Value	2	\$559mm
MDT Large Cap Growth	8	\$76mm
MDT Micro Cap	2	\$2mm
MDT Mid Cap Growth	197	\$709mm
<b>MDT Small Cap Core</b>	<b>96</b>	<b>\$82mm</b>
MDT Small Cap Growth	4	\$129mm
MDT Small Cap Value	107	\$63mm
MDT All Cap Core	1,840	\$745mm
MDT All Cap Core - Tax-Aware	79	\$56mm
MDT Market Neutral	1	\$4mm
Index Funds	2	\$1.3B
<b>Total Managed Assets</b>	<b>19,732</b>	<b>\$355.3B</b>

**Disclosure Note:** The source of the aforementioned assets is the GIPS Accounting System. Therefore, the GIPS assets reported will vary from the corporate assets reported due to the two different methodologies utilized for asset reporting. Assets are as of September 30, 2016.

13. Please provide a breakdown of the FIRM'S accounts & assets in the following table:

	# of Accounts	\$ Value
<b>Tax Exempt Assets:</b>		
ERISA	69	\$50.6B
Public	26	\$39.4B
Taft-Hartley	23	\$453mm
Endowment	14	\$227mm
Foundation	15	\$45mm
Religious Order	-	-
Other	8,170	\$9.1B
<b>Total Tax-Exempt</b>	<b>8,248</b>	<b>\$49.2B</b>
<b>Taxable Assets:</b>		
Personal Trusts	11,351	\$12.5B
Commingled	-	-

<b>Total Taxable</b>	11,351	\$12.5B
<b>Mutual Funds:</b>		
Equity	40	\$38.1B
Fixed Income	55	\$46.5B
Money Market	38	\$209.0B
<b>Total Mutual Funds</b>	133	\$293.6B
<b>Overall Total</b>	19,732	\$355.3B

**Disclosure Notes:**

#1- The source of the aforementioned assets is the GIPS Accounting System. Therefore, the GIPS assets reported will vary from the corporate assets reported due to the two different methodologies utilized for asset reporting. Assets are as of September 30, 2016.

#2 - Please note that the ERISA assets are not to be double counted with the total tax-exempt assets listed above.

#3 - "Other" Tax Exempt Assets includes both separate accounts (241 accounts, \$6.6B) and WRAP Accounts (7,929 accounts, \$2.5B).

#4 - "Personal Trusts" Taxable Assets includes both separate accounts (224 accounts, \$8.2B) and Other Taxable WRAP Accounts (11,127 accounts, \$4.2B).

#5 - "Religious Accounts" are included in the "Other" and in the "Foundation and Endowment" line items. Therefore, we did not double count this client type.

14. Provide a breakdown of the PRODUCT'S accounts & assets in the following table:

	# of Accounts	\$ Value
<b>Tax Exempt Assets:</b>	0	-
ERISA	0	-
Public	0	-
Taft-Hartley	0	-
Endowment	0	-
Foundation	0	-
Religious Order	0	-
Other	0	-
<b>Total Tax-Exempt</b>	0	-
<b>Taxable Assets:</b>	0	-
Personal Trusts	95	\$32mm
Commingled	0	-

<b>Total Taxable</b>	95	\$32mm
<b>Mutual Funds:</b>	0	-
Equity	1	\$50mm
Fixed Income	0	-
Money Market	0	-
<b>Total Mutual Funds</b>	1	\$50mm
<b>Overall Total</b>	96	\$82mm

## Disclosure Notes:

Note #1 - "Personal Trusts" Taxable Assets includes WRAP account portfolios.

Note #2: For reporting purposes, we do not provide the account types within the mutual fund portfolio due to the omnibus account set-up in the transfer agency system.

15. What are your firm's plans for growth of these assets?

We are committed to maintaining a status as one of the largest global investment management firms by growing our investment management products, services, and assets under management through institutional and intermediary distribution channels. Our business plan includes strategies to support continuous enhancement of investment management capabilities, support of distribution channel needs, and optimization of shareholder value through efficient operating leverage. Additionally, we seek growth in assets under management through acquisitions, alliances, alternative products, and distribution opportunities.

16. Are there plans for limiting growth in any of the above areas?

There are no self-imposed limits on growth. However, as market conditions change, we review our portfolios in terms of capacity limits. We currently have no plans to close or limit investments in the portfolio under consideration. Further, we regularly evaluate staffing needs, adjusting accordingly based on business need.

As we continue to view the investment management business as a growth industry, we will focus our strategy on providing clients with differentiated value, strong investment returns, and acceptable risk parameters, while growing organically and acquisitively.

17. How does your firm plan to staff the growth of the firm described above?

We will add additional staff as needed to manage, satisfactorily, all portfolios we make available to our valued clients.

18. Give five (5) references for your services.

- Eng Heah  
Director  
Dominion Resources  
120 Tredegar Street  
Richmond, VA 23261  
804-819-2104  
[eng.heah@dom.com](mailto:eng.heah@dom.com)
- Kevin T. Cooper  
Senior Vice President  
AMG

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- John Hughes  
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 410-633-9311  
[tmiller@staila-balt.com](mailto:tmiller@staila-balt.com)
- Susan Golembiewski  
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 Investment Accountant  
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 Harrisburg, PA 17102  
 717-787-2065  
[sgolembiew@pa.gov](mailto:sgolembiew@pa.gov)
- Brian K. Collett  
 Missouri Local Gov't Employees Retirement System  
 Chief Investment Officer  
 1913 William St.  
 Jefferson City, MO 65102  
 573-636-9455  
[bcollett@molagers.org](mailto:bcollett@molagers.org)

19. State the average size of the firm's 5 largest tax-exempt funds. | 1.0B

20. Indicate the number & assets of tax-exempt accounts the *FIRM* gained & lost in each category:

Gained	2011		2012		2013		2014		2015	
	#	\$	#	\$	#	\$	#	\$	#	\$
Public	1	\$200mm	1	\$300mm	4	\$7.0B	0	-	5	\$1.4B
ERISA	1	\$1mm	0	-	6	\$184mm	2	\$232mm	0	-
Taft-Hartley	0	-	1	\$9mm	1	\$140mm	0	-	0	-
Endowment	0	-	0	-	1	\$11mm	0	-	0	-
Foundation	0	-	0	-	0	-	0	-	0	-
Religious Order	0	-	0	-	0	-	0	-	0	-
Other	0	-	2	\$58mm	1	\$26mm	1	\$712mm	7	\$424mm
<b>Total</b>	<b>2</b>	<b>\$201mm</b>	<b>4</b>	<b>\$367mm</b>	<b>13</b>	<b>\$7.4B</b>	<b>3</b>	<b>\$944mm</b>	<b>12</b>	<b>\$1.8B</b>

Lost	2011		2012		2013		2014		2015	
	#	\$	#	\$	#	\$	#	\$	#	\$
Public	0	-	0	-	0	-	0	-	0	-
ERISA	0	-	0	-	0	-	0	-	0	-
Taft-Hartley	0	-	0	-	0	-	1	\$18mm	0	-
Endowment	1	\$8mm	0	-	1	\$18mm	0	-	0	-
Foundation	0	-	0	-	0	-	0	-	1	\$1mm
Religious Order	0	-	0	-	0	-	0	-	0	-
Other	6	\$585mm	0	-	0	-	2	\$345mm	1	\$65mm
<b>Total</b>	<b>7</b>	<b>\$593mm</b>	<b>0</b>	<b>-</b>	<b>1</b>	<b>\$18mm</b>	<b>3</b>	<b>\$363mm</b>	<b>2</b>	<b>\$66mm</b>

**Disclosure Note:** The gained and lost asset information reflects only the separate account and sub-advised account portfolios. Mutual fund and WRAP portfolio activity have not been reflected in the aforementioned table.

21. Please discuss any unusually large number of accounts or assets lost.

Not applicable.

22. Indicate the number & assets of tax-exempt accounts the PRODUCT gained & lost:

Gained	2011		2012		2013		2014		2015	
	#	\$	#	\$	#	\$	#	\$	#	\$
Public	-	-	-	-	-	-	-	-	-	-
ERISA	-	-	-	-	-	-	-	-	-	-
Taft-Hartley	-	-	-	-	-	-	-	-	-	-
Endowment	-	-	-	-	-	-	-	-	-	-
Foundation	-	-	-	-	-	-	-	-	-	-
Religious Order	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Lost	2011		2012		2013		2014		2015	
	#	\$	#	\$	#	\$	#	\$	#	\$
Public	-	-	-	-	-	-	-	-	-	-
ERISA	-	-	-	-	-	-	-	-	-	-
Taft-Hartley	-	-	-	-	-	-	-	-	-	-
Endowment	-	-	-	-	-	-	-	-	-	-
Foundation	-	-	-	-	-	-	-	-	-	-
Religious Order	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-



Total	-	-	-	-	-	-	-	-	-	-
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23. For the PRODUCT, please discuss any unusually large # of accounts or assets lost.

Not Applicable.

Disclosure Note: Federated Investors, Inc. is one of the largest investment managers in the United States, managing \$364.3 billion in assets as of September 30, 2016. With a variety of funds and separately managed account options, Federated provides comprehensive investment management to approximately 8,500 institutions and intermediaries including corporations, government entities, insurance companies, foundations and endowments, banks and broker/dealers. Federated ranks in the top 4% of money market fund managers in the industry, the top 5% of equity fund managers and the top 10% of fixed income fund managers. (Source is Strategic Insight, August 31, 2016. Based on assets under management in open-end funds.) Since many accounts are set-up as omnibus accounts in the Transfer Agency System, we do not have all underlying detail for mutual fund account type reporting.

In the following table, list the 5 clients (or all clients, if fewer than 5 in the strategy) with the most invested in the product (including clients that aren't included in the composite), and the requested details.

If the client is public (or you may disclose its name) please do. Otherwise state the type of client (e.g. Taft-Hartley, Foundation, Sub-Advisory, Mutual Fund, etc.).

For Vehicle, potential choices would include (but aren't limited to) Separate Account, Commingled Fund, CIT, Mutual Fund, etc.

	<b>Client Name or Type</b>	<b>\$ Invested</b>	<b>State (or Nation)</b>	<b>Investment Year</b>	<b>Vehicle</b>	<b>Included In Composite?</b>
1	Federated MDT Small Cap Core Fund	\$50mm	US	2005	Mutual Fund	Yes – Proposed Product
2	Federated MDT Small Cap Core Managed Account	\$32mm	US	2005	WRAP Separate Account Composite	The WRAP composite is a separate composite which is part of the proposed products strategy.
3						
4						
5						

## Investment Philosophy Implementation

1. Describe the structure of the product's investment team, including how many members the team has and the responsibilities of each member. Include an organizational chart which details the flow of information used in the decision making process.

MDT uses a team approach to manage its strategies. All members of the MDT investment team have broad, cross-functional responsibilities that include investment research, software development, portfolio management, and trading for the Optimum Q process, on which all MDT strategies are based. The group is also responsible for performance analysis and trading cost analysis. Daniel J. Mahr, CFA, Managing Director, Research, and Sarah A. Stahl, CIPM, Managing Director, lead the 13-member investment team. The following are the senior investment personnel:

### **Daniel J. Mahr, CFA**

*Managing Director, Research*

- Joined MDT Advisers in 2002
- Harvard College, A.B., Computer Science
- Harvard University, S.M., Computer Science

### **Sarah A. Stahl, CIPM**

*Managing Director*

- Joined MDT Advisers in 1997
- Harvard College, A.B., Cum Laude, Applied Mathematics and Economics
- Harvard Graduate School of Business Administration, M.B.A.

### **Brian M. Greenberg**

*Research Manager*

- Joined MDT Advisers in 2004
- Harvard College, A.B., Computer Science
- Harvard University, S.M., Computer Science

### **Frederick L. Konopka, CFA**

*Portfolio and Trading Manager*

- Joined MDT Advisers in 1997
- Dartmouth College, A.B., Mathematics
- MIT Sloan School of Management, M.S., Concentration in Information Technology and Finance

### **John Paul ("J.P.") Lewicke**

*Research Manager*

- Joined MDT Advisers in 2007
- Dartmouth College, A.B., Cum Laude, Computer Science and Mathematics

### **Damien Zhang, CFA**

*Research Manager*









- Joined MDT Advisers in 2009
- Princeton University, A.B., Summa Cum Laude, Economics

### **Daniel J. Burnside, Ph.D., CFA**

*Director, Risk Management*

- Joined MDT Advisers in 2011
- Cornell University, B.S., Engineering
- Cornell University, M.Eng., Engineering
- Cornell University, Ph.D., Engineering/Mathematics
- University of Rochester, M.B.A.

## MDT Investment Team

	Education	Years with MDT	Significant Experience at MDT		
 <b>Daniel J. Mahr, CFA</b> Managing Director, Research	<ul style="list-style-type: none"> <li>Harvard College, A.B., Cum Laude, Computer Science</li> <li>Harvard University, S.M., Computer Science</li> </ul>	14	<ul style="list-style-type: none"> <li>Developed proprietary system for building trees</li> <li>Managing Director, Research 2008 - Present</li> </ul>		
 <b>Sarah A. Stahl, CIPM</b> Managing Director	<ul style="list-style-type: none"> <li>Harvard College, A.B., Cum Laude, Applied Mathematics</li> <li>Harvard Graduate School of Business Administration, M.B.A</li> </ul>	19	<ul style="list-style-type: none"> <li>Designed and built trading and investment performance systems</li> <li>Introduced tax-aware strategy</li> </ul>		
 <b>Brian M. Greenberg</b> Research Manager	<ul style="list-style-type: none"> <li>Harvard College, A.B., Computer Science</li> <li>Harvard University, S.M., Computer Science</li> </ul>	12	<ul style="list-style-type: none"> <li>Developed new versions of several stock selection variables</li> <li>Added new detailed data streams to the research process</li> </ul>		
 <b>Frederick L. Konopka, CFA</b> Portfolio & Trading Manager	<ul style="list-style-type: none"> <li>Dartmouth College, Mathematics, A.B</li> <li>M.I.T. Sloan School of Management, M.S</li> </ul>	19	<ul style="list-style-type: none"> <li>Introduced mid cap and small cap strategies</li> <li>Developed trading methodology and built trading team</li> </ul>		
 <b>John Paul Lewicke</b> Research Manager	<ul style="list-style-type: none"> <li>Dartmouth College, A.B., Cum Laude, Mathematics and Computer Science</li> </ul>	9	<ul style="list-style-type: none"> <li>Improved backtest simulation accuracy</li> <li>Developed enhanced technology for scoring companies using trees</li> </ul>		
 <b>Damien Zhang, CFA</b> Research Manager	<ul style="list-style-type: none"> <li>Princeton University, A.B., Summa Cum Laude, Economics</li> </ul>	7	<ul style="list-style-type: none"> <li>Improved portfolio optimization risk management</li> <li>Made tree predictions more robust</li> </ul>		
 <b>Daniel J. Burnside, Ph.D., CFA</b> Director, Risk Management	<ul style="list-style-type: none"> <li>Cornell University, Ph.D., Electrical Engineering</li> <li>University of Rochester, M.B.A.</li> </ul>	7	<ul style="list-style-type: none"> <li>22 years experience in industry</li> <li>Lecturer in Finance, U. Rochester business school</li> <li>Provides input for risk analysis and model design</li> </ul>		
<b>Research Analysts</b>			<b>Traders</b>		
 Andrew Hannigan Analyst Years with MDT: 3	Tony Ng Analyst Years with MDT: 5	Kelly Patel Analyst Years with MDT: 6	Kevin Walker Analyst Years with MDT: 3	 Michael G. Bertani Assistant Portfolio and Trading Manager Years with MDT: 8	 Stacie Costa Trader Years with MDT: 3

2. How long have the key members of the team worked with this product? Have there been additions or departures in the last 3 years for the team managing the proposed product? Please explain.

Daniel J. Mahr, CFA, Managing Director, Research, leads the investment team. Each member's tenure with the product is as follows:

- **Daniel J. Mahr, CFA** (12 Years with product, 14 Years with firm)
- **Sarah A. Stahl, CIPM** (12 Years with product, 19 Years with firm)
- **Brian M. Greenberg** (12 Years with product, 12 Years with firm)
- **Frederick L. Konopka, CFA** (12 Years with product, 19 Years with firm)
- **John Paul ("J.P.") Lewicke** (9 Years with product, 9 Years with firm)
- **Damien Zhang, CFA** (7 Years with product, 7 Years with firm)
- **Daniel J. Burnside, Ph.D., CFA** (7 Years with product, 7 years with firm)

On average, MDT's investment personnel enjoy long tenures within the respective strategies they manage, with the most recent investment manager appointment occurring in January 2015 when Damien Zhang, CFA, was promoted from Senior Analyst to Research Manager. Zhang joined MDT in 2009.

3. What is the # of accounts and account volume (in \$) that is handled by this team?

The team currently manages 14 separate accounts, 7 mutual fund portfolios, and 1 sub-advised account, which total approximately \$1.7B as of 09/30/2016.

The team also manages 2,315 wrap accounts that total approximately \$846mm and UMA assets that total approximately \$279mm as of 09/30/2016 for a total of \$2.8B in assets under management.

4. Do the same groups manage equity, fixed income, & balanced portfolios at the firm?

No. The core investment team responsible for the management of the MDT Small Cap Core Strategy manages equity portfolios exclusively.

5. Does the firm employ a central trading desk?

While Federated employs a central trading desk at the firm level for its various investment offerings, a central trading desk is not used for the MDT process. As trading is critical to the overall MDT investment process, the MDT Investment Team manages trading for the strategies. Fred Konopka, CFA, Portfolio and Trading Manager; Mike Bertani, Assistant Portfolio and Trading Manager; and Stacie Costa, Trading and Performance Analysis Assistant, are most directly responsible. MDT does not have an internal brokerage arm; all trades are executed through external brokers. Trades are generated daily by a quantitative model, so the traders through whom we handle trades have only minor tactical discretion.

6. If yes, describe the trading operation & the traders' qualifications.

For MDT-specific strategies, Fred Konopka, CFA, Portfolio and Trading Manager; Mike Bertani, Assistant Portfolio and Trading Manager; and Stacie Costa, Trading and Performance Analysis Assistant, are most directly responsible for the daily trading of the various MDT-specific strategies.

The trading team sends orders for execution only after the portfolio management team hands them the orders. This "hand-off" is the authorization. An automated process runs the following morning that compares all the orders generated by the quantitative model to trades actually executed. Exceptions are investigated and resolved before that day's trading begins.

The trading team's qualifications, presented in brief detail, are as follows:

- **Frederick Konopka**, CFA, Vice President, Portfolio and Trading Manager, MDT Advisers, a Federated Advisory Company. Dartmouth College, A.B., Mathematics; M.I.T. Sloan School of Management, M.S., Concentration in Information Technology and Finance. Joined MDT Advisers 1997, joined Federated 2006; Investment Experience: 19 Years.
- **Michael Bertani**, Assistant Vice President, Assistant Portfolio & Trading Manager, MDT Advisers, a Federated Advisory Company. Roger Williams University, B.S., Financial Services. Joined MDT Advisers 2006, joined Federated 2006; Investment Experience: 8 Years.
- **Stacie Costa**, Trading and Performance Analysis Assistant, MDT Advisers, a Federated Advisory Company. University of Massachusetts, B.S., Magna Cum Laude, Finance. Joined Federated 2012; Investment Experience: 3 Years.

7. Does the firm have an investment committee?

While Federated Investors, Inc. employs a centralized investment committee at the firm level, the investment committee's scope is not relevant to the MDT quantitative model employed in the management, operation, and distribution of the strategy under consideration for this mandate.

8. If yes, describe how it operates & the background/experience of the members.

Not applicable to the product under consideration.

9. If applicable, how often does the investment committee meet?

Not applicable to the product under consideration.

## Equity Investment Philosophy

1. Please indicate which categories most correctly identify the equity investment style of the product:

Large Cap		Core	x
Mid Cap		Bottom-Up	x
Small Cap	x	Top-Down	
Micro Cap		Momentum	
All Cap		Sector Rotator	
Value		Market Neutral	
Relative Value		Low P/E	
Deep Value		Quantitative	x
Growth		Fundamental	x
GARP		Index Funds	

2. In one or two brief sentences, please state the product's investment philosophy.

We believe there are multiple and dynamic combinations of fundamental variables that can identify stocks that are expected to outperform. The process selects stocks based on these combinations of factors, manages risk through diversification constraints, and manages turnover by taking into account the impact of trading costs.

3. Describe the equity investment philosophy including how buy and sell decisions are made.

MDT's bottom-up process integrates stock selection, trading cost management and risk management as it trades portfolios daily. We update all of our company and market data nightly, recalculating stock selection factors that include relative value, profit trends, capital structure, and price history. Then we use regression trees based on these factors to predict each company's likely outperformance over the next three months. That prediction becomes the company's stock selection score. Regression trees, familiar in academic literature, provide a uniform method for determining the importance of each stock selection factor to each company, thus mitigating any biases or subjectivity from the process.

Once the regression trees have created the company outperformance estimates, we use proprietary software built by the investment team to maximize the portfolio's alpha potential, net of trading costs and obeying multiple diversification constraints. Portfolios are constrained to be roughly sector neutral to the Small Cap Core investment universe. Individual position sizes are determined by using the maximum position size constraint, the correlations among companies, and the tradeoff between alpha and market impact (trading cost).

All buy and sell decisions are then the difference between the newly optimized portfolio and its existing holdings. As these decisions are determined by the model, so there is no emotional bias in these decisions. When the risk-adjusted ranking of a holding falls enough below the risk-adjusted ranking of a potential buy to account for the trading costs, the holding is sold. Although the investment team examines every trade proposed by the model to verify that it is based on accurate and current information, the team does not overlay subjective judgments on the model's decisions.

4. When was the investment philosophy established?

Federated MDT Advisers has supported the same core philosophy since the development of the MDT investment process in 1991.

5. Has this philosophy been implemented for the last five years? If not, are the creators of the previous philosophy still with the firm?

The MDT Small Cap Core strategy was launched in March of 2004 by Federated MDT Advisers, and the key investment team members listed above with more than twelve years of tenure all participated in the initial development of the product. The investment process continues to be developed today according to the inaugural principles.

6. What is considered to be the competitive advantage of the philosophy?

MDT's strategies have all the benefits of a quantitative investment process: a disciplined, unemotional approach, a lack of behavioral impact, a breadth of analysis, etc. In addition, the firm's fundamental, bottom-up approach to its quantitative style of management results in a unique combination of strengths relative to all other managers:

- The MDT investment team has the ability to examine every stock in the universe every day. Investment opportunities come from temporary market inefficiencies caused by inefficient spread of information and by human behavior. Our sophisticated quantitative tools allow us to inspect thousands of stocks every single day as a means to locate mispriced issues. We believe that we are competitively positioned as other managers may lack the same framework and systems that support our repeatable, testable process.
- The MDT investment team seeks to provide a high-alpha strategy with relatively low tracking error. Risks are managed with diversification constraints that create roughly sector-neutral portfolios, focusing the bets on stocks with specific combinations of fundamental and technical factors expected to outperform. This investment process seeks to lessen the impact of external "black swan" events that often affect sectors or other correlated groups disproportionately. Accordingly, the MDT strategies usually have moderate active share.
- The MDT stock selection process employs regression trees, which are an excellent algorithm for uncovering, and intuitively expressing, the non-linear relationships embodied in financial markets. (Non-linearity refers to the fact that the importance of a given factor in determining a company's score is dependent on the values of that company's other factors.) The regression trees are used to predict each company's rolling three-month-ahead outperformance versus the universe. We have not yet found another manager that has been able to take advantage of the power of regression trees to the extent that MDT has and our returns are relatively uncorrelated to the returns of both fundamental and quantitative managers; consultants confirm that they have never seen a similar process.
- The MDT investment team updates the process regularly. Investment team members monitor the model carefully and dedicate the bulk of their time to research in seeking to improve its functionality. The MDT team is able to leverage cutting-edge technologies and academic research rapidly in seeking to maintain its strategies' alpha potential even as the market evolves. This process is the way that the MDT investment team seeks to deliver time-tested, repeatable performance across the Federated MDT strategies.

7. What changes have been made to the investment process in the past 5 years?

Federated MDT has supported the same core philosophy since the development of the MDT investment process in 1991. While MDT has not changed its core philosophy, MDT does research continually and updates and enhances its investment process and all of its quantitative models. The purpose of periodically updating the model is to improve our portfolio selection capabilities and to try to assure that our quantitative model is up-to-date with the evolving market. Each model enhancement encompasses the benefits of our most recent research, the latest in investment technology, and the most recent market data.

8. In what market environments is the strategy expected to outperform/underperform?

The strategy is expected to outperform in periods when the market is judging companies according to their fundamentals. The strategy may underperform in periods where the stock market is being driven



emotionally. In these periods, stock prices are usually reacting to external events rather than the fundamental characteristics and prices of the individual stocks.

9. Please explain any significant quarterly underperformance over the past five years.

Jun 2012	-2.12%	Gross, relative to benchmark	2012 Full year	+5.74%	Gross, relative to benchmark
	-2.47%	Net, relative to benchmark		+4.00%	Net, relative to benchmark

The worst performing quarter of the last five years was June 2012. In spite of this weak quarter, the Fund did outperform the benchmark in 2012.

In June 2012, 80% of the portfolio was in two combinations of fundamentals that did poorly: 47% in stocks with high universe-relative earnings to price and moderate to high universe-relative structural earnings, and 30% in the same type of stocks that had underperformed during September 2011 (very high earnings estimate momentum and moderately high structural earnings). Stock selection caused 1.55% of the underperformance this quarter, and sector selection caused 1.17% of the underperformance this quarter.

As an active manager there will be periods of underperformance, but we try to improve our process with regular updates. One of our long-range projects has been to improve the risk/reward balance of the strategy (improve its information ratio). The quarter discussed here occurred while we were using an update that had been installed in June 2011. When we made the next update (January 2013) we improved the risk characteristics of the strategy further. At that time we eliminated our sector bets and began using a more sophisticated stock selection algorithm which included random sampling and looked at many more combinations of fundamental factors so the strategy was much more diversified. In 2015 we went a step further by adding company correlations to our optimization procedure in order to manage groups of correlated companies across sectors. With these improvements, we continue to work toward making the strategy more robust to more market conditions. It has performed well: our worst quarter since June 2012 was March 2014, with underperformance of only 1.46%. The since-inception information ratio, calculated quarter for this strategy as of June 2012 was -0.0629; as of September 2016, it is 0.2697.

10. Indicate the % of equity market capitalization as of the most recent quarter-end, as well as a range over the last three years.

	Current	3 year range
Micro Cap (<\$100mm)	0.1%	0.0 – 0.2%
Small Cap (\$100mm - \$2b)	78.2%	70.4 – 84.1%
Mid Cap (\$2b - \$15b)	21.8%	15.9 – 32.5%
Large Cap (>\$15b)	0.0%	0.0%

11. Indicate the median and average market capitalizations for the most recent quarter-end.

	(Product)	(Benchmark)
Median Market Cap	1.14B	1.77B
Average Market Cap	1.38B	1.87B

12. Please share some of the risk constraints that are used by the firm (e.g., maximum sector weightings, maximum % for an individual holding, tracking error, etc.)

MDT's models are implemented using a robust, back-tested process that incorporates risk management controls. We manage portfolio risk by using diversification constraints that create roughly sector-neutral portfolios. Active bets within the sectors are precise, targeting specific combinations of fundamental factors while managing for systematic risks, such as the impact of macroeconomic events. Sector constraints and considerations are as follows:

- $\pm 1.0\%$  from weight in Russell 2000 benchmark, unless the MDT Small Cap Core buyable universe



has a lower weight.

- Among the various sectors that comprise our investment universe, we closely analyze any potential company correlations among different sectors in order to avoid unintended overexposure to any correlated group of stocks.
- Our stock selection process incorporates a proprietary algorithm that identifies stocks with many different combinations of fundamental factors, another way diversification is incorporated in the portfolio.

Daniel Burnside, the MDT investment team's Director of Risk Management, is responsible for reviewing the risk profile of the MDT strategies and highlighting risks that may arise outside normal market behavior. Additionally, portfolio performance is reviewed regularly (daily) by the portfolio manager, the investment team, and the respective Chief Investment Officer, through a variety of reports. On a monthly basis, performance is reviewed by portfolio management using detailed performance attribution reports. On a quarterly basis, a formal review is conducted by the chief investment officer with the portfolio management team and the attribution and the risk profile of the products are discussed.

13. Are your managers given an approved stock list?

No. However, security selection is the primary factor in the MDT quantitative process. Industry and sector allocation are derivatives of our bottom-up stock selection and diversification constraints.

14. If so, how many securities are typically on that list?

Not applicable to the strategy under consideration.

15. Are there provisions so that securities that are not on the approved list may be purchased?

Not applicable to the strategy under consideration.

16. Does the product invest in ADRs? If so, what are the current and maximum exposures?

No, the product does not invest in ADRs.

17. Does the product invest in foreign ordinary shares?

No, the product does not invest in foreign ordinary shares, except in the unusual case that the shares are considered domestic and included in the Russell 2000 Index.

18. Describe, in detail, the use of cash in the equity process.

MDT does not strategically alter cash allocations. Cash allocation is residual and tends to fall between 0-2%. Cash is not used as a defensive mechanism, as the strategy seeks to be invested fully (<5% cash allocation).

19. What range of cash is typical?

Cash allocation is residual and tends to fall between 0-2 percent. Cash balances are segregated.

20. For the most recent period available please indicate the Product's top ten holdings:

	<u>Name</u>	<u>Industry</u>	<u>%</u>
(1)	MSG Networks Inc.	Media	2.25
(2)	Trinseo S.A.	Chemicals	1.59
(3)	Hawaiian Holdings, Inc.	Passenger Transportation	1.45
(4)	American Eagle Outfitters, Inc.	Retail - Discretionary	1.45
(5)	Deluxe Corporation	Commercial Services	1.42
(6)	SPX Corp	Electrical Equipment	1.39
(7)	Drew Industries, Incorporated	Leisure Products	1.38

(8)	Orthofix International N.V.	Medical Equipment & Devices	1.35
(9)	Dean Foods Company	Consumer Products	1.26
(10)	Knoll, Inc.	Home & Office Products	1.23
% Total			14.77

## Research

- |    |  |     |
|----|--|-----|
| 1. | What percentage of research is generated internally?               | 90% |
| 2. | What percentage of research is obtained from outside sources?      | 10% |
| 3. | Please describe how the research operation within your firm works. |     |

For MDT, “research” is defined as exploring ways to improve the investment process and the quantitative models. Individual company research is not performed, but is instead left to the sell-side analysts whose earnings estimates are included in our database.

Using this definition of research, the entire MDT Investment Team conducts research on several fronts. First, the team performs research to help construct new or improved stock selection variables. Second, the investment team attempts to improve our stock selection process by refining our regression tree construction methodology. Third, the investment team works to improve our portfolio selection algorithms in order to obtain better risk/returns tradeoffs and take better account of trading costs. Lastly, the investment team constantly works to improve the speed and effectiveness of our proprietary simulation-based model building technology.

- |    |  |  |
|----|--|--|
| 4. | Please describe how your firm obtains and pays for outside research reports.               |  |
| 5. | Please name the three primary sources of data and/or analyses upon which your firm relies. |  |

- |     |   |
|-----|---|
| (1) | Thompson Financial (I/B/E/S)                  |
| (2) | S&P Capital IQ (Compustat)                    |
| (3) | Center for Research in Security Prices (CRSP) |

- |    |   |  |
|----|---|--|
| 6. | Who coordinates the firm’s research effort & what are their qualifications for that position. |  |
|----|---|--|

**Daniel J. Mahr, CFA**

*Managing Director, Research*

- Joined MDT Advisers in 2002
- Harvard College, A.B., Computer Science
- Harvard University, S.M., Computer Science

**Brian M. Greenberg**

*Research Manager*

- Joined MDT Advisers in 2004
- Harvard College, A.B., Computer Science
- Harvard University, S.M., Computer Science

**John Paul (“J.P.”) Lewicke**

*Research Manager*

- Joined MDT Advisers in 2007
- Dartmouth College, A.B., Cum Laude, Computer Science and Mathematics

**Damien Zhang, CFA**

*Research Manager*

- Joined MDT Advisers in 2009
- Princeton University, A.B., Summa Cum Laude, Economics

## Personnel

1. In the table below, indicate the appropriate number of employees employed in each category.

	2012	2013	2014	2015
Equity portfolio managers	32	33	36	38
Bond portfolio managers	29	29	33	38
Balanced fund managers	2	2	2	2
Equity research analysts	65	63	55	53
Bond research analysts	41	40	42	40
Economists	0	0	0	0
Management and Administrative (Compliance, Operations)	109	112	121	132
Computer professionals	265	261	281	282
Clerical	412	412	420	410
Other (Marketing, Client Service, Trading)	447	451	445	449
<b>Total</b>	<b>1,402</b>	<b>1,403</b>	<b>1,435</b>	<b>1,444</b>

2. Please provide biographical information on all key members of the proposed product's asset mgmt team, including years of experience with this asset class & years with the firm.

### MDT Investment Team:

- Daniel Mahr, CFA**, Managing Director, Research, brings 14 years of investment experience to his role as lead portfolio manager of the MDT strategy line, having joined Federated MDT Advisers, a Boston-based subsidiary of Federated Investors, Inc. (2006), in 2002. Mr. Mahr's credits include the construction and deployment of the industry-first proprietary system for "building trees," the non-linear algorithm for uncovering, and intuitively expressing, the non-linear relationships embodied in financial markets. He has been the managing director of research since 2008. Mr. Mahr graduated cum laude from Harvard College with an A.B. in Computer Science, and, an S.M. in Computer Science from Harvard University. (12 Years with product, 14 Years with firm)
- Sarah Stahl, CIPM**, Managing Director, has 19 years of investment experience. Ms. Stahl has cross-functional investment and marketing responsibilities, and she participates in research and provides performance-based input to the research process. Ms. Stahl joined MDT Advisers as a member of the investment team in 1997 and remains a member of that team today. She was instrumental to the development of the tax-aware strategies, and she created the system that manages daily portfolio optimization and trading together with one of her colleagues. Ms. Stahl has experience in stock selection factors, trading cost models, and performance attribution models. She received her bachelor's degree, cum laude, in Applied Mathematics from Harvard College in Cambridge, MA. She received her M.B.A. from Harvard Business School in Boston, MA. (12 Years with product, 19 Years with firm)
- Frederick Konopka, CFA**, Portfolio and Trading Manager, joined Federated MDT Advisers in 1997. Mr. Konopka was a lead in creating the MDT Mid Cap Growth and Small Cap Growth Strategies. Mr. Konopka has developed and managed MDT's trading process, and he has recruited and mentored the current trading team. A 19-year veteran of the financial services industry, Mr. Konopka holds an A.B. in Mathematics from Dartmouth College and an M.S. with concentrations in

Information Technology and Finance from MIT Sloan School of Management. (12 Years with product, 19 Years with firm)

- **Brian Greenberg**, Research Manager, brings 12 years of investment experience to his current role, having joined Federated MDT Advisers in 2004. As research manager, Mr. Greenberg is credited with the development of contemporary versions of several quintessential stock selection factors inherent to the MDT methodology, including new data streams for the MDT fundamental research process. He holds A.B. and S.M. degrees in Computer Science from Harvard College and Harvard University, respectively. (12 Years with product, 12 Years with firm)
- **John Paul Lewicke**, Research Manager, joined Federated MDT Advisers in 2007. During his nine-year tenure with Federated MDT Advisers, Mr. Lewicke has improved back-test simulation accuracy within the MDT strategy line as well as enhanced technology for scoring companies by deploying the use of regression trees. Mr. Lewicke graduated cum laude from Dartmouth College, where he earned an A.B. in Mathematics and Computer Science. (9 Years with product, 9 Years with firm)
- **Damien Zhang, CFA**, Assistant Vice President, Research Manager, joined Federated MDT Advisers in 2009. During his seven-year tenure with Federated MDT Advisers, Mr. Zhang has improved the risk management within the MDT portfolio optimization process, enhanced the robustness of the tree-based stock selection process, and made meaningful contributions to upgrading the investment team's analytics systems. Mr. Zhang graduated summa cum laude from Princeton University, where he earned an A.B. in economics. (7 Years with Product, 7 Years with firm)
- **Daniel Burnside, Ph.D., CFA**, Vice President, Director, Quantitative Risk Management, joined Federated Investors, Inc. in 2008, and joined the Federated MDT Advisers investment team in 2011. As a member of the MDT team, Dr. Burnside assesses market risk, reviewing the risk profile of the MDT strategies with a focus on market conditions that may arise outside normal market behavior. A 22-year financial services industry veteran, Dr. Burnside's professional affiliations include lecturer in Finance, University of Rochester Business School, from which he holds an M.B.A. in Finance; and visiting lecturer in Finance at the Johnson School of Management, Cornell University, from which he holds B.S. and M.S. degrees in Engineering as well as a Ph.D. in Engineering and Mathematics. (7 Years with Product, 7 Years with firm)

#### Additional Investment Team Members:

- **Andrew Hannigan**, Investment Analyst, MDT Advisers, a Federated Advisory Company. Dartmouth College, B.A., Cum Laude, Computer Science. Joined Federated 2013; Investment Experience: 3 Years.
- **Tony Ng**, Assistant Vice President, Analyst, MDT Advisers, a Federated Advisory Company. Previous associations: Senior Engineer, Raytheon Company; Research Assistant, MIT Lincoln Laboratory. Massachusetts Institute of Technology, B.S. & M.E., Electrical Engineering & Computer Science. Joined Federated 2011; Investment Experience: 5 Years.
- **Kelly Patel**, Assistant Vice President, Analyst, MDT Advisers, a Federated Advisory Company. Boston University, B.S., Summa Cum Laude, Business Administration. Joined MDT Advisers 2006, joined Federated 2006; Investment Experience: 6 Years.
- **Kevin Walker**, Investment Analyst, MDT Advisers, a Federated Advisory Company. Dartmouth College,

M.S., Computer Science, B.A., Linguistics. Joined Federated 2013; Investment Experience: 3 Years.

**Trading Staff:**

- **Michael Bertani**, Assistant Vice President, Assistant Portfolio & Trading Manager, MDT Advisers, a Federated Advisory Company. Roger Williams University, B.S., Financial Services. Joined MDT Advisers 2006, joined Federated 2006; Investment Experience: 8 Years.
- **Stacie Costa**, Trading and Performance Analysis Assistant, MDT Advisers, a Federated Advisory Company. University of Massachusetts, B.S., Magna Cum Laude, Finance. Joined Federated 2012; Investment Experience: 3 Years.

3. In the last 3 years, how many professional employees have left the firm for any reason?

There have been no departures from the Federated MDT Investment Team over the last three years.

Federated, as of 9/30/2016, had a total of 228 employees considered Investment Professionals. Federated Investment Professional departures over the last three years:

- 2013: 11 departures
- 2014: 11 departures
- 2015: 12 departures
- YTD 2016 (as of 9/30/2016): 6 departures

4. What qualifications are typical of the PMs, include yrs w/ firm, \$ under mgmt & # of accounts.

Qualifications for investment professionals vary depending on the specific position. MDT's process relies heavily on quantitative analysis; therefore, a candidate seeking employment within the MDT team requires qualifications somewhat different from that which is sought by its parent, Federated Investors, Inc. Those specific qualifications include, but are not limited to, the following:

- Degree in finance, mathematics, statistics, physics and/or computer science; Master's degree and/or Ph.D., preferred
- 6+ years of investment experience
- In-depth knowledge of quantitative investment products
- Strong knowledge of financial markets and ability to generate alpha
- Experience in designing, implementing and reviewing software, using a variety of languages and techniques, including databases and C programming languages
- Familiarity with C/C++ or Java a plus.
- Strong analytical, leadership, interpersonal and communication skills
- High mathematical aptitude
- Strong unstructured problem solving capabilities

Successful candidates have the opportunity to contribute to all aspects of the investment process including investment research, software development, and portfolio management. Responsibilities can include analyzing financial data sets, designing and running sophisticated simulations to evaluate potential investment strategies, and developing innovative software tools that help drive our investment process.

From a firm-wide perspective, our portfolio management team across all asset classes, which includes CIOs, Senior Portfolio Managers, Portfolio Managers and Assistant Portfolio Managers, has an average of 23 years of investment experience and an average of 13 years working together at Federated. Assets under management and number of accounts vary and are determined by the Chief Investment Officer.

5. Please describe the method of compensation employed for portfolio managers.

Federated's total compensation program is designed to be competitive in the market for individual portfolio manager, analyst and trader roles and to attract and retain talented and qualified individuals. A unique aspect of Federated's compensation program is the fact that traders are also compensated on the outcome related to investment portfolios. We believe that traders are an important component of the alpha production for investment management and structure compensation packages and bonus programs in a manner that recognizes their contribution.

Investment professionals are compensated through multiple compensation components. Each position is benchmarked versus a peer group of competing investment management firms to establish appropriate total compensation ranges. Individual salaries are determined within the competitive range based on position responsibilities, skill set, experience, and performance. Annually, individual and portfolio performance goals are established. Portfolio performance is measured against relevant peer groups and benchmarks. Annual bonus payments are based on the portfolios' outperformance relative to peer groups and benchmark targets.

As salaries are reviewed annually, the Human Resources Department conducts the competitive market benchmark analyses, discussing their findings with senior management. The investment management professional's manager evaluates individual performance considering factors such as portfolio performance and team contributions, as well as relevant market compensation information. Based on this information, the manager recommends appropriate salary adjustments for approval by senior management.

Each year, portfolio and individual performance targets as well as bonus achievement levels are established. After completion of the plan year, performance is assessed against the pre-established objectives, and bonus amounts are calculated. These amounts are reviewed and approved by senior management.

Historically, stock options and restricted stock awards have been made to investment management professionals to support retention and attraction objectives and to reward outstanding performance. Additionally, a portion of the bonus is awarded in the form of restricted stock.

6. Please describe the method of compensation employed for research analysts.

Compensation programs are designed to be competitive in the market. Federated targets the same level of competitiveness versus the market regardless of role. The compensation program at MDT has the same structure for research analysts as it does for portfolio managers.



## Client Service

1. Who would be the individual providing service for this client? Please provide a brief bio and description of responsibilities for this individual.

Federated's relationship management is multi-dimensional and consists of support from several areas including investment management, client service, and consultant relations. Federated employs a dedicated team of client service professionals committed to servicing institutional clients. As the majority of our institutional business is influenced by an investment consultant, our consultant relations professionals are industry veterans who liaise with the client's investment consultant to help ensure ongoing communication related to common client relationships. This focused and holistic approach helps to ensure proper coverage, which garners support from all aspects of the organization. Federated takes tremendous pride in the quality of products and services we offer our clients.

We support and encourage open dialogue with our clients and are always open to opportunities that would enhance our relationship. The professionals identified below comprise the client service team responsible for the delivery of tailored services and benefits inherent of the value add of the client-Federated relationship:

- **Paul J. Zuber**, CIMA, Senior Vice President, Consultant Relations Manager, who has 18 years of investment experience including 15 years with Federated and with MDT, serves as primary consultant relationship manager, working with the plan consultants for the seamless distribution of our products and services to their clients. He communicates any significant firm changes, responds to questions and administrative needs, and serves as your gateway to the Federated's resources, including access to portfolio management. In addition, Paul is responsible for marketing Federated's investment management capabilities to the pension consulting community and to other institutional due diligence teams that interface with Federated. Paul's previous associations and background are as follows: Vice President, Regional Sales Manager, Federated Managed Account Division. B.A. in Economics, University of Notre Dame, M.B.A., Rutgers University. Joined Federated in 1999.
- **Daniel Berry**, Vice President, Federated Institutional Sales Division. Responsible for marketing of separate account and mutual fund products to public and private pension plans, foundations and endowments, Taft-Hartley plans, hospitals, and other institutional investors. Previous association: Assistant Vice President, Mellon Retirement Services. B.A., University of Pittsburgh. Joined Federated 2000.
- **Richard Recker**, Vice President, Client Service Manager, Institutional Sales Division. Responsible for meeting and exceeding the account relationship needs of Federated's institutional clients. Rich serves as the liaison between clients and Federated's sales management, investment management, legal and back office services. BSBA and MBA Robert Morris University. Joined Federated 1993.

2. What information about investments made in the submitted product is available to institutional clients in this strategy? How regular/up-to-date is this information, and how detailed?

We generally provide reports on a monthly and quarterly basis to our separate account clients. Quarterly reports would include comprehensive account summaries, complete holdings, performance results, and relevant portfolio attributes. Monthly reports would provide updates to the quarterlies and are typically tailored to client requests.

Contingent upon asset size, MDT-invested clients receive quarterly half-hour attribution updates.

Additionally, for separate accounts, the majority of custodian banks provide web-based access to custodied portfolios as part of their service. Typically, Federated and its clients have the ability to access portfolio holdings and activity on a daily basis through these systems, which gives Federated the opportunity to



reconcile activity, monitor flows, and assist with trade settlement issues quickly and efficiently, while giving the client a daily snapshot of the portfolio. MDT reconciles all positions, cost, market value, accruals, corporate actions, and transactions on a daily basis.

3. Does your firm offer an online portal for accessing information about this product?

Yes. FederatedInvestors.com is robust for plan sponsor and consultant use. Via this institutional portal, clients may access product details, quarterly performance, commentaries, and other statistical, publicly disclosed strategy data.

4. How often does your firm create attribution reports for the portfolio (either on a perfunctory basis, or as solicited by clients).

Federated MDT Advisers has a proprietary attribution system that is usually updated daily and is capable of providing attribution information at day, month, quarter, and annual frequencies. MDT-strategy-invested clients, contingent upon asset size, may receive quarterly half-hour attribution updates.

5. Would your firm have a representative accept invitations to present to the board on a regular basis (roughly once per year, though possibly more or less often?) Would your firm be willing to have a portfolio manager present to the board as part of those presentations?

Yes and yes. At Federated, we view relationships with our clients as partnerships, and we support and encourage our clients to establish a relationship with our investment professionals. Consequently, our investment professionals, including the portfolio manager, are accessible and responsive to client requests. Your Client Service Officer, Daniel Berry, and Paul Zuber, Consultant Relations Manager are committed to meeting at your desired frequency.

**Performance**

1. Is your firm in compliance with GIPS?
2. If yes to the above, has your GIPS compliance been audited?
3. If yes to the above, who performed the audit?

Yes.
Yes, on a quarterly basis.
Ashland Partners & Company LLP

**Performance – as of 3Q16**

Investment Style	Small Cap Core
Product Name Used For Performance	MDT Small Cap Core Strategy
Inception Date	03/01/2004
Account Type	Separate Account
Benchmark Used	<b>Russell 2000 Index</b>
Portfolio Manager/Team Leader	Daniel J. Mahr, CFA, Team Leader
Years Managing this Product	12

Only include **RETURNS FOR COMPLETE YEARS'** performance in the table below.

Do NOT place returns for partial years in the table below, even if noted as incomplete.

Partial years and their performance may **only** go in the indicated box above.

**Only complete years may be included in the returns below.** List incomplete years, if any, this product has had in the box to the right.

**Commingled Funds and Separate Accounts must provide Gross of Fees Returns**  
**Mutual Funds should submit Gross of Fees numbers if you have access to those numbers,**  
**and must provide Net of Fees numbers at a minimum.**

Never delete any of the below columns for any reason, even if you are leaving it blank.

These returns are **in addition** to the requirement to submit a complete quarterly returns since inception document, as described in the instructions section at the beginning of this RFP.

Are you providing Net of Fees instead of Gross of Fees returns below?  
 Indicate with an "X" to the right **only** if yes. Otherwise, leave blank.  
 (Only Mutual Fund submissions may do this)

Period	Return Gross of Fees	Return Net of Fees	Preferred Benchmark Return	# of Accounts for Product	Assets (\$) in Composite
2006	17.93	16.77	18.37	2	\$5mm
2007	1.28	0.28	-1.57	4	\$28mm
2008	-42.77	-43.37	-33.79	7	\$112mm
2009	15.37	14.23	27.17	6	\$132mm
2010	26.29	25.06	26.85	3	\$26mm
2011	-0.57	-1.57	-4.18	2	\$18mm
2012	21.57	20.37	16.35	1	\$16mm
2013	48.07	46.65	38.82	1	\$38mm
2014	4.67	3.63	4.89	1	\$30mm
2015	-2.25	-3.23	-4.41	1	\$30mm
1 <sup>st</sup> Quarter 2016	4.75	4.49	-1.52	1	\$32mm
2 <sup>nd</sup> Quarter 2016	3.05	2.79	3.79	1	\$38mm
3 <sup>rd</sup> Quarter 2016	13.53	13.25	9.05	1	\$50mm
Annualized 3-year	11.98	10.88	6.71	-	-
Annualized 5-year	21.69	20.50	15.82		