

## MEMORANDUM

**TO:** Potential Investors

**FROM:** Ashley Rose Stumbaugh, SMIF Benchmarking Specialist

**DATE:** April 9, 2012

**SUBJECT:** Student Managed Investment Funds - A Case for Peer Benchmarking

### Executive Summary:

Student Managed Investment Funds (SMIFs) are popular experiential learning vehicles found in many schools of business across the country. They take many forms: size, asset class, structure, etc. but their missions remain the same: give students hands on experience managing real money. SMIFs place the dominant value on their educational components rather than returns. Despite this focus on education a number of portfolio management competitions exist: University of Dayton RISE Conference, Quinnipiac University GAME Conference, Tennessee Valley Authority Portfolio Competition, and many more. For finance students, competition is natural and a driver of their work. I propose that building a peer universe of SMIFs in which they rank based on historical performance will allow for more accurate benchmarking and a critical tool for prospective employers.

### Student Managed Investment Funds Background:

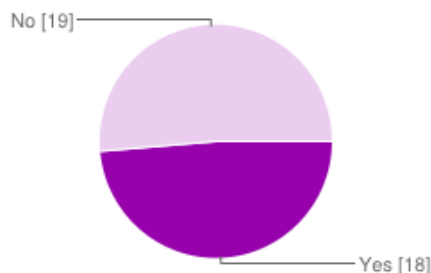
Student Managed Investment Funds are portfolios of money managed by students in a university setting. Typically funding comes from donors, donations over time by students in the organization, or money from the university endowment. These organizations are most often in the form of a for-credit class (71%) or as a student-run club (29%). The majority of these funds are equity only, in that they only invest in publicly traded stocks.

The most recent research available shows there are 314 active SMIFs across the globe managing \$407 million dollars and 5,500 student participants.<sup>1</sup> The first SMIFs began in the 1950's but did not gain mass popularity until the 1970's. Within the universities and colleges, the SMIF is housed in the business school 99% of the time, however there are growing exceptions to that rule with increased demand for constrained optimization. For the list of active SMIFs as of 2008 please refer to Appendix A.

Limited research is available on SMIFs and most of the publications are about the history, structure and funding of the programs. There exists no complete data set of funds or their performance with the capability to rank. The closest competitor is the annual portfolio competitions held at university investment conferences.

### Exploratory Research:

In order to determine the interest from other schools in this project I created a basic survey and received 37 responses from universities/colleges with SMIFs. The initial response



was less positive than anticipated, when asked: **Would your fund be interested in submitting quarterly performance data in order to be ranked against comparable SMIFs?** Only 49% said yes, they would be interested. There was no request for verbal response, why the fund was not interested in submitting data but one advisor took the initiative and provided some insight:

*"Any attempt to publish indexes of various student funds gives prospective students the impression that past performance of these funds is a key metric to be considered when selecting a program, something we don't think will serve them well in the long run (in the same way that chasing current winners hasn't served retail investors very well over time)."*

This response emphasized the educational mission statement of SMIFs. However, the growing popularity of stock pitch and portfolio competitions implies that success in terms of risk adjusted returns *is* important to students and their advisors. The responder's point about using the rankings as a way for prospective students to select programs is valid. In the investment management business "*past performance is not indicative of future returns*" (it is of note that from 2004 to 2008 the University of Iowa took home highest honors for their portfolio management at the RISE Conference). While I don't believe the best use of this data is for prospective students to select university programs, four years later, when a student is graduating - it will mean significantly more to a prospective employer that not only was the student involved in one of the 300+ SMIFs but she was a member of the highest performing SMIF. Additionally, potential donors may find this information useful: it can become a point of pride for the university to have a top quartile SMIF and potentially generate more interest in the fund, leading to better more robust funding.

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<sup>1</sup> Lawrence, Edward C. 2008. "Student Managed Investment Funds: An International Perspective.

The survey also found that the majority of SMIFs were equity funds (97%) and used a blend strategy to allocate their funds (59%). For more information about the survey, please refer to Appendix B.

### **Peer Benchmarking Rational:**

Student Managed Investment Funds strive to operate as professional organizations: virtually all have Investor Policy Statements, many produce annual reports, have industry coverage teams and fund hierarchy structures that mimic professional investment managers. Peer benchmarking is yet another way for SMIFs to inch closer to professional investment managers. Services such as FactSet, CapitalIQ, Bloomberg, Morningstar and countless others provide benchmarking databases for professional investment managers. Within these databases a user (typically a prospective client or investment consultant) can filter data by asset class, investment style, assets under management, historical performance (quarterly, annualized, et cetera). Publishing a data set with comparable information about SMIFs will bring these student organizations one step closer to the professionals they aspire to be.

Mentioned earlier, portfolio competitions are becoming increasingly popular. At best, these competitions are held once per year and take into account the fund's single year performance. These competitions also require participants attend the conferences they are a part of (Quinnipiac's GAME Conference is held in New York City and University of Dayton's RISE is held in Dayton, Ohio) which is geographically limiting. Students attending university in the south or west coast are not geographically convenient to either of the major conference. In order for their funds to be ranked they must invest significant time and capital in travel. Developing an online, quarterly data collection system will allow for more participants and more data providing a more meaningful outcome.

### **Data Collection**

In order to determine what data should be collected in what form I compared a variety of investment manager rankings. eVestment Alliance had the most straightforward and sleek website requiring the most barebones of information. Using eVestment as a guide I narrowed down the data points of collection to four main categories: Fund Overview, Performance Tables, Holdings Tables and Industry Allocation. Schools would be required to submit the following information:

#### Fund Overview

The initial account set up by the faculty member will populate the first table on the Fund Overview section: University Name, SMIF Name, Organizational Structure and Membership Profile and Policy Limits. Every quarter the financial ratios and market capitalization will be updated to reflect the current portfolio. To view the full Fund Overview input page, please refer to Appendix C.

### Performance Tables

|                        |           |           |           |           |           |            |
|------------------------|-----------|-----------|-----------|-----------|-----------|------------|
| <b>Currency:</b>       | USD       |           |           |           |           |            |
|                        |           |           |           |           |           |            |
| <b>Year</b>            | <b>1Q</b> | <b>2Q</b> | <b>3Q</b> | <b>4Q</b> | <b>FY</b> | <b>YTD</b> |
| <i>Since inception</i> |           |           |           |           |           |            |
|                        |           |           |           |           |           |            |

### Holdings Tables

| CUSIP | Ticker | Security Name | Security Type | # of Shares | Security Price | Weight (%) | Country | MV |
|-------|--------|---------------|---------------|-------------|----------------|------------|---------|----|
|       |        |               |               |             |                |            |         |    |
|       |        |               |               |             |                |            |         |    |

### Industry Allocation

|   |  |   |
|---|--|---|
| <b>S&amp;P/MSCI Global Industry Classification Standard</b> |  |   |
| <i>Exclude Cash</i>   |  |   |
| Consumer Discretionary                                      |  | % |
| Consumer Staples  |  | % |
| Energy  |  | % |
| Financials  |  | % |
| Healthcare  |  | % |
| Industrials   |  | % |
| Information Technology                                      |  | % |
| Materials   |  | % |
| Telecom Services  |  | % |
| Utilities   |  | % |
| Other   |  | % |
| Total = 100%  |  | % |
|   |  |   |
| <b>Russell Global Sectors</b>                               |  |   |
| <i>Exclude Cash</i>   |  |   |
| Technology  |  | % |
| Healthcare  |  | % |
| Consumer Discretionary                                      |  | % |
| Consumer Staples  |  | % |
| Producer Durables   |  | % |
| Materials & Processing                                      |  | % |
| Financials  |  | % |
| Energy  |  | % |
| Utilities   |  | % |
| Total = 100%  |  | % |

Once the parameters for the data were set the website began development. Technology consultants from Light Industries are working with my Requirements Document to create a secure website which will serve to collect the data from the participating schools. The decision to use a secure website instead of individual excel spreadsheets came from a standpoint of work-flow and data integrity. The requirements document in its entirety can be found in the Appendix D.

### Challenges

There are three major challenges associated with the SMIF benchmarking project: developing the relationship with the university/college programs, the integrity of the data and longevity of the database. If the project is carefully designed I believe structures can be put in place to overcome most if not all of the major challenges.

The most formidable challenge for this project is the relationships between university programs. The starting point for data collection is the list of schools outlined in Lawrence's 2008 article on SMIF's. His outline provided names of schools with SMIFs; I used publicly available

information on the school websites to fill in the contact information. Having compiled all of the contact information for the programs, the next step will be convincing them to participate in the data submission. According to my survey of 37 SMIFs, buy-in will be difficult for at least 50%

of the programs. I present the value proposition: better benchmarking, beneficial to employers and increased information about SMIFs is crucial to gaining school participation.

The second major challenge will be maintaining the integrity of self-reported data. Typically, SMIFs' performance goes unaudited as they are not registered investment professionals. Therefore, when the colleges self-report data it is to be taken at face value: that this is reported by the program with almost no data authentication. One way to add a check into the data submission process is to set different permissions in the website for faculty users and student users. For instance, a faculty advisor will be required to create log in credentials before the students will be allowed. The faculty advisor will be able to add and remove students as club leadership graduates or turns over, will be able to view all changes made by the students and override their inputs. Students will only have the ability to view past inputs and make changes to current quarter data. This ensures that one user has final say over the data and that different versions do not exist.

Finally, the longevity of the project is a major concern. Continuity and succession planning is a major concern of student managed investment funds due to high student turnover. On the schools' end, having the faculty member as the primary point of contact allows the website to be insulated from some of the student turnover. From the administrator's standpoint, rather than having American University's SMIF run the benchmarking website (which might preclude them from being ranked in the data - much the way the host university of a conference does not participate in the portfolio competition) an external sponsor will likely maintain control as part of their community relations efforts. Having a local organization maintain the database will allow for an unbiased third party who plans to operate indefinitely.

## **Conclusion**

The absence of a comprehensive Student Managed Investment Fund database is a unique opportunity. The creation of such a database would serve all parties involved: students, faculty advisors and potential employers. Maintenance of the data will be served by an unbiased third party and hosted on a secure website. All of the challenges to the success can be addressed with adequate preparation.

**References**

Kahl, Douglas R. 1997. "The challenges and opportunities of student-managed investment funds at metropolitan universities." *Financial Services Review* 6, no. 3: 197. *Business Source Premier*, EBSCOhost (accessed April 8, 2012).

Lawrence, Edward C. 2008. "Student Managed Investment Funds: An International Perspective." *Journal of Applied Finance* 18 (2): 67-83.  
<http://search.proquest.com/docview/201489657?accountid=8285>.

**Resources**

Dun Scott, President  
Columbia Partners, LLC Investment Management  
Mike Cohn, President  
Light Industries, Technology Solutions  
Dr. Phil English, Professor  
American University Kogod School of Business

## Appendix A – List of Student Managed Investment Funds per Lawrence Article

### Appendix A. Listing of All US Funds

| University Name                          | City            | State | Year Started | Funds 2007 \$000 |
|--|-----------------|-------|--------------|------------------|
| Abilene Christian University *           | Abilene         | TX    | n/a          | 319              |
| Adelphi University                       | Garden City     | NY    | 2007         | 100              |
| Alabama A&M University                   | Normal          | AL    | 1998         | 330              |
| Alaska Pacific University *              | Anchorage       | AK    | 2000         | 185              |
| Alfred University *                      | Alfred          | NY    | 1995         | 200              |
| American University                      | Washington      | DC    | 2002         | 100              |
| Anderson University                      | Anderson        | IN    | 2007         | 10               |
| Appalachian State University             | Boone           | NC    | 2000         | 116              |
| Arizona State University *               | Tempe           | AZ    | 1996         | 515              |
| Ashland University                       | Ashland         | OH    | 2000         | 375              |
| Auburn University                        | Auburn          | AL    | 1999         | 50               |
| Austin College *                         | Sherman         | TX    | 2007         | 1,000            |
| Austin Peay State University *           | Clarksville     | TN    | 1998         | 400              |
| Babson College                           | Babson Park     | MA    | 1997         | 1,300            |
| Baldwin-Wallace College *                | Berea           | OH    | 2006         | 175              |
| Ball State University                    | Muncie          | IN    | 2005         | 577              |
| Bates College *                          | Lewiston        | ME    | 2004         | 100              |
| Baylor University                        | Waco            | TX    | 2001         | 6,500            |
| Belmont University *                     | Nashville       | TN    | 2003         | 400              |
| Bentley College *                        | Waltham         | MA    | 1997         | 555              |
| Binghamton University - SUNY *           | Binghamton      | NY    | 2003         | 130              |
| Bluffton University                      | Bluffton        | OH    | 1956         | 174              |
| Boise State University                   | Boise           | ID    | 1995         | 149              |
| Boston College *                         | Boston          | MA    | 1983         | 360              |
| Boston University                        | Boston          | MA    | 2001         | 25               |
| Bowling Green State University           | Bowling Green   | OH    | 2006         | 265              |
| Brandeis University *                    | Waltham         | MA    | 1998         | 13               |
| Brigham Young University                 | Provo           | UT    | 1984         | 1,866            |
| Bryant University                        | Smithfield      | RI    | 2005         | 425              |
| Bryn Mawr College *                      | Bryn Mawr       | PA    | 1975         | 100              |
| Bucknell University                      | Lewisburg       | PA    | 2000         | 750              |
| Butler University                        | Indianapolis    | IN    | 2007         | 1,000            |
| California Institute of Technology       | Pasadena        | CA    | 1978         | 490              |
| California Polytechnic State Univ.       | San Luis Obispo | CA    | 1992         | 453              |
| California State University Fresno       | Fresno          | CA    | 1999         | 90               |
| California State University - Long Beach | Long Beach      | CA    | 1995         | 100              |

**Appendix A. Listing of All US Funds (Continued)**

| University Name                            | City             | State | Year Started | Funds 2007 \$ |
|--|------------------|-------|--------------|---------------|
| California State University - Northridge   | Northridge       | CA    | 1994         | 2,000         |
| California State University - Los Angeles* | Los Angeles      | CA    | 2001         | 100           |
| Cameron University                         | Lawton           | OK    | 1988         | 800           |
| Canisius College *                         | Buffalo          | NY    | 2003         | 300           |
| Carnegie Mellon University *               | Pittsburgh       | PA    | 2006         | 64            |
| Carroll College *                          | Helena           | MT    | 2004         | 50            |
| Cedar Crest College                        | Allentown        | PA    | 1997         | 52            |
| Cedarville University*                     | Cedarville       | OH    | 2008         | 75            |
| Centenary College of Louisiana *           | Shreveport       | LA    | 2003         | 120           |
| Central Michigan University                | Mt. Pleasant     | MI    | 1997         | 469           |
| Christian Brothers College                 | Memphis          | TN    | 2003         | 400           |
| Christian Brothers University              | Memphis          | TN    | 2003         | 400           |
| Claremont Graduate School *                | Claremont        | CA    | 2001         | 381           |
| Clemson University *                       | Clemson          | SC    | 2004         | 300           |
| Cleveland State University *               | Cleveland        | OH    | 2007         | 100           |
| College of New Jersey                      | Ewing            | NJ    | 2000         | 170           |
| College of William & Mary                  | Williamsburg     | VA    | 1999         | 590           |
| College of Wooster                         | Wooster          | OH    | 1955         | 1,300         |
| Colorado College                           | Colorado Springs | CO    | 2004         | 24            |
| Colorado State University                  | Fort Collins     | CO    | 1998         | 190           |
| Connecticut College *                      | New London       | CT    | 2002         | 77            |
| Cornell University *                       | Ithaca           | NY    | 1998         | 13,500        |
| Creighton University                       | Omaha            | NE    | 1993         | 2,500         |
| Culver Stockton College *                  | Canton           | MO    | 1996         | 55            |
| Dartmouth                                  | Hanover          | NH    | 1996         | 400           |
| DePaul University *                        | Chicago          | IL    | 1982         | 341           |
| Drake University *                         | Des Moines       | IA    | 1999         | 239           |
| Drexel University                          | Philadelphia     | PA    | 2007         | 250           |
| Duke University *                          | Durham           | NC    | 1952         | 162           |
| East Tennessee State University            | Johnson City     | TN    | 2000         | 370           |
| Eastern Illinois University                | Charleston       | IL    | 1994         | 136           |
| Eastern Washington University *            | Cheney           | WA    | 2004         | 50            |
| Elizabethtown College                      | Elizabethtown    | PA    | 2007         | 130           |
| Emory University                           | Atlanta          | GA    | 2006         | 1,200         |
| Fairfield University                       | Fairfield        | CT    | 2006         | 300           |
| Florida Gulf Coast University              | Fort Myers       | FL    | 2005         | 220           |
| Franklin and Marshall College              | Lancaster        | PA    | 1999         | 204           |
| Gannon University                          | Erie             | PA    | 1952         | 126           |
| Gardner Webb University *                  | Boiling Springs  | NC    | 2000         | 25            |
| George Washington University               | Washington       | DC    | 2005         | 1,500         |
| Georgetown University *                    | Washington       | DC    | 1999         | 200           |
| Georgia Institute of Technology            | Atlanta          | GA    | 1986         | 810           |
| Georgia State University                   | Atlanta          | GA    | 2005         | 368           |
| Gonzaga University                         | Spokane          | WA    | 2000         | 200           |
| Grinnell College *                         | Grinnell         | IA    | 2000         | 122           |
| Gustavus Adolphus College *                | ST. Peter        | MN    | 1998         | 123           |
| Harvard University *                       | Cambridge        | MA    | na           | na            |
| Henderson State University                 | Arkadelphia      | AR    | 2001         | 343           |
| Humboldt State University                  | Arcata           | CA    | 2006         | 7             |
| Idaho State University                     | Pocatello        | ID    | 2005         | 59            |
| Illinois College                           | Jacksonville     | IL    | 1995         | 458           |
| Illinois State University                  | Normal           | IL    | 1982         | 383           |
| Illinois Wesleyan University               | Bloomington      | IL    | 1993         | 740           |
| Indiana State University *                 | Terre Haute      | IN    | 2000         | 437           |
| Indiana University *                       | Bloomington      | IN    | 1986         | 500           |
| Indiana University of Pennsylvania         | Indiana          | PA    | 2005         | 223           |
| Iowa State University                      | Ames             | IA    | 1999         | 195           |



## Appendix A. Listing of All US Funds (Continued)

| University Name                         | City              | State | Year Started | Funds 2007 |
|---|-------------------|-------|--------------|------------|
| Ithaca College *                        | Ithaca            | NY    | 2005         | 24         |
| Jacksonville University                 | Jacksonville      | FL    | 1987         | 454        |
| James Madison University *              | Harrisonburg      | VA    | 1999         | 146        |
| John Carroll University                 | Cleveland         | OH    | 1996         | 170        |
| Kansas State University                 | Manhattan         | KS    | 2002         | 1,100      |
| Kennesaw State University               | Kennesaw          | GA    | 2006         | 100        |
| Kutztown University of Pennsylvania     | Kutztown          | PA    | 2005         | 190        |
| Lafayette College                       | Easton            | PA    | 1950         | 455        |
| Lehigh University                       | Bethlehem         | PA    | 1962         | 360        |
| Lipscomb University                     | Nashville         | TN    | 2003         | 450        |
| Longwood University                     | Farmville         | VA    | 2002         | 430        |
| Loras College                           | Dubuque           | IA    | 1998         | 172        |
| Louisiana State University *            | Baton Rouge       | LA    | 2005         | 1,000      |
| Loyola College *                        | Baltimore         | MD    | 2006         | 500        |
| Marquette University                    | Milwaukee         | WI    | 2005         | 1,200      |
| Marywood University                     | Scranton          | PA    | 2006         | 75         |
| Massachusetts Institute of Technology * | Cambridge         | MA    | 1964         | 27         |
| McNeese State University                | Lake Charles      | LA    | 2007         | 21         |
| Miami University                        | Oxford            | OH    | 1996         | 375        |
| Michigan State University               | East Lansing      | MI    | 2003         | 4,200      |
| Michigan Technological University       | Houghton          | MI    | 1998         | 1,300      |
| Middle Tennessee State University       | Murfreesboro      | TN    | 1998         | 325        |
| Middlebury College                      | Middlebury        | VT    | 1987         | 275        |
| Millsaps College                        | Jackson           | MS    | 1989         | 200        |
| Mississippi State University *          | Mississippi State | MS    | 1998         | 400        |
| Mississippi University for Women        | Columbus          | MS    | 1999         | 385        |
| Montana State University - Bozeman*     | Bozeman           | MT    | 1985         | 50         |
| Montana State University - Billings *   | Billings          | MT    | 1985         | 50         |
| Moravian College                        | Bethlehem         | PA    | 1962         | 1,442      |
| Murray State University *               | Murray            | KY    | 1998         | 440        |
| Nebraska Wesleyan University            | Lincoln           | NE    | 2005         | 250        |
| New Mexico State University             | Las Cruces        | NM    | 2007         | 5,013      |
| New York University                     | New York City     | NY    | 2000         | 2,001      |
| North Carolina State University         | Raleigh           | NC    | 2004         | 135        |
| North Dakota State University           | Fargo             | ND    | 2007         | 110        |
| Northeastern University                 | Boston            | MA    | 2007         | 50         |
| Northern Arizona University             | Flagstaff         | AZ    | 2000         | 997        |
| Northern Illinois University            | DeKalb            | IL    | 2000         | 230        |
| Northern Michigan University            | Marquette         | MI    | 2006         | 210        |
| Northwest Nazarene University           | Nampa             | ID    | 2003         | 70         |
| Northwestern University                 | Evanston          | IL    | 1964         | 2,375      |
| Oberlin College*                        | Oberlin           | OH    | 2004         | 281        |
| Ohio Northern University                | Ada               | OH    | 1989         | 128        |
| Ohio State University                   | Columbus          | OH    | 1990         | 25,810     |
| Ohio University                         | Athens            | OH    | 2001         | 2,000      |
| Oregon State University                 | Corvallis         | OR    | 2005         | 60         |
| Ouachita Baptist University             | Arkadelphia       | AR    | 2000         | 20         |
| Pace University                         | Pleasantville     | NY    | 2002         | 280        |
| Pacific Lutheran University *           | Tacoma            | WA    | 1982         | 92         |
| Pennsylvania State University           | University Park   | PA    | 2005         | 5,000      |
| Portland State University               | Portland          | OR    | 1997         | 251        |
| Princeton University *                  | Princeton         | NJ    | 2006         | 10         |
| Purdue University                       | West Lafayette    | IN    | 2000         | 400        |
| Radford University                      | Radford           | VA    | 2003         | 495        |
| Rice University                         | Houston           | TX    | 1996         | 900        |
| Roanoke College *                       | Salem             | VA    | 2004         | 500        |
| Roger Williams University               | Bristol           | RI    | 2004         | 122        |

# Appendix A. Listing of All US Funds (Continued)

| University Name                           | City             | State | Year Started | Funds 2007 |
|---|------------------|-------|--------------|------------|
| Rollins College                           | Winter Park      | FL    | 1999         | 750        |
| Rutgers University *                      | New Brunswick    | NJ    | 2000         | 1,605      |
| Saint Bonaventure University              | St. Bonaventure  | NY    | 2003         | 45         |
| Saint Cloud State University              | St. Cloud        | MN    | 1999         | 115        |
| Saint John's University                   | New York         | NY    | 2001         | 2,700      |
| Saint Joseph's University                 | Philadelphia     | PA    | 2004         | 117        |
| Saint Louis University                    | St. Louis        | MO    | 2002         | 916        |
| Saint Mary's University                   | San Antonio      | TX    | 2007         | 1,000      |
| Salisbury University                      | Salisbury        | MD    | 2000         | 388        |
| Samford University                        | Birmingham       | AL    | 2008         | 500        |
| San Diego State University *              | San Diego        | CA    | 1992         | 100        |
| Santa Clara University                    | Santa Clara      | CA    | 2000         | 350        |
| Scripps College *                         | Claremont        | CA    | na           | 200        |
| Seattle University *                      | Seattle          | WA    | 2004         | 50         |
| Shippensburg University                   | Shippensburg     | PA    | 1994         | 81         |
| Southeast Missouri State University       | Cape Girardeau   | MO    | 1990         | 835        |
| Southern Illinois University              | Carbondale       | IL    | 2000         | 360        |
| Southern Methodist University             | Dallas           | TX    | 1980         | 6,500      |
| Southern New Hampshire University         | Manchester       | NH    | 2004         | 59         |
| Southwestern University                   | Georgetown       | TX    | 1999         | 349        |
| Spring Arbor University                   | Spring Arbor     | MI    | 2005         | 12         |
| Stanford University *                     | Stanford         | CA    | 1978         | 180        |
| State University of New York - Geneseo    | Geneseo          | NY    | 2007         | 18         |
| Stetson University                        | DeLand           | FL    | 1980         | 3,100      |
| Syracuse University *                     | Syracuse         | NY    | 2006         | 1,100      |
| Tennessee State University *              | Nashville        | TN    | 1998         | 400        |
| Tennessee Tech University                 | Cookeville       | TN    | 2000         | 500        |
| Texas A & M University *                  | College Station  | TX    | 2000         | 250        |
| Texas Christian University                | Ft. Worth        | TX    | 1973         | 1,500      |
| Texas Tech University                     | Lubbock          | TX    | 1997         | 2,200      |
| Texas Wesleyan University                 | Ft. Worth        | TX    | 1998         | 776        |
| Trevecca Nazarene University              | Nashville        | TN    | 2003         | 405        |
| Trinity University                        | San Antonio      | TX    | 1998         | 1,340      |
| Tufts University *                        | Medford          | MA    | na           | 1,059      |
| Tulane University *                       | New Orleans      | LA    | 1999         | 2,419      |
| Union University *                        | Jackson          | TN    | 2003         | 400        |
| University of Akron                       | Akron            | OH    | 1996         | 100        |
| University of Alabama - Huntsville        | Huntsville       | AL    | 1998         | 428        |
| University of Alabama - Birmingham *      | Birmingham       | AL    | 2007         | 385        |
| University of Alabama - Tuscaloosa*       | Tuscaloosa       | AL    | 1998         | 50         |
| University of Alaska                      | Fairbanks        | AK    | 1995         | 550        |
| University of Arizona                     | Tucson           | AZ    | 2000         | 930        |
| University of Arkansas-Fayetteville       | Fayetteville     | AR    | 1971         | 12,000     |
| University of California - Los Angeles    | Los Angeles      | CA    | 1987         | 2,000      |
| University of California - Berkeley*      | Berkeley         | CA    | 1999         | 120        |
| University of Chicago *                   | Chicago          | IL    | 2005         | 1,000      |
| University of Cincinnati *                | Cincinnati       | OH    | 2000         | 350        |
| University of Colorado - Boulder          | Boulder          | CO    | 2002         | 300        |
| University of Colorado - Colorado Springs | Colorado Springs | CO    | 2004         | 58         |
| University of Connecticut *               | Storrs           | CT    | 2000         | 2,300      |
| University of Dayton *                    | Dayton           | OH    | 1994         | 6,300      |
| University of Delaware *                  | Newark           | DE    | 1996         | 800        |
| University of Denver *                    | Denver           | CO    | 1999         | 550        |
| University of Georgia                     | Athens           | GA    | 2007         | 101        |
| University of Houston                     | Houston          | TX    | 2002         | 9,177      |
| University of Idaho *                     | Moscow           | ID    | 1989         | 400        |
| University of Illinois                    | Champaign        | IL    | 1999         | 390        |
| University of Iowa                        | Iowa City        | IA    | 1994         | 536        |

## Appendix A. Listing of All US Funds (Continued)

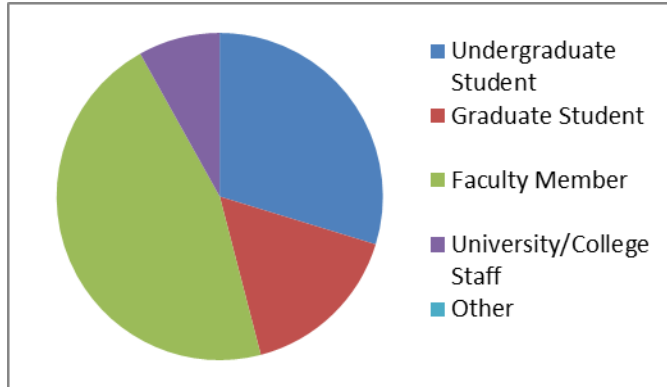
| University Name                             | City            | State | Year Started | Funds 200 |
|---|-----------------|-------|--------------|-----------|
| University of Kansas                        | Lawrence        | KS    | 1994         | 1,523     |
| University of Kentucky                      | Lexington       | KY    | 1999         | 400       |
| University of Louisville                    | Louisville      | KY    | 2004         | 50        |
| University of Maine                         | Orono           | ME    | 1993         | 1,253     |
| University of Maryland                      | College Park    | MD    | 1993         | 1,350     |
| University of Memphis                       | Memphis         | TN    | 1999         | 475       |
| University of Michigan                      | Ann Arbor       | MI    | 2000         | 3,700     |
| University of Minnesota - Minneapolis       | Minneapolis     | MN    | 1998         | 25,000    |
| University of Minnesota - Duluth            | Duluth          | MN    | 2003         | 440       |
| University of Mississippi                   | University      | MS    | 2001         | 335       |
| University of Missouri-Columbia             | Columbia        | MO    | 1967         | 1,354     |
| University of Missouri-St. Louis            | St. Louis       | MO    | 1988         | 125       |
| University of Montana *                     | Missoula        | MT    | 1985         | 50        |
| University of Nebraska - Lincoln            | Lincoln         | NE    | 1981         | 1,300     |
| University of Nebraska - Omaha*             | Omaha           | NE    | 2000         | 1,400     |
| University of Nevada *                      | Reno            | NV    | 2004         | 107       |
| University of New Hampshire *               | Durham          | NH    | 1995         | 50        |
| University of New Mexico                    | Albuquerque     | NM    | 2006         | 2,400     |
| University of North Alabama *               | Florence        | AL    | 2003         | 400       |
| University of North Carolina - Chapel Hill  | Chapel Hill     | NC    | 1952         | 1,424     |
| University of North Carolina - Wilmington * | Wilmington      | NC    | 2007         | 1,000     |
| University of North Carolina - Charlotte *  | Charlotte       | NC    | 1997         | 235       |
| University of North Dakota                  | Grand Forks     | ND    | 2005         | 676       |
| University of North Florida *               | Jacksonville    | FL    | 1999         | 772       |
| University of North Texas *                 | Denton          | TX    | 2003         | 277       |
| University of Northern Colorado *           | Greeley         | CO    | 1992         | 1,100     |
| University of Northern Illinois *           | DeKalb          | IL    | 1999         | 200       |
| University of Northern Iowa *               | Cedar Falls     | IA    | 1999         | 115       |
| University of Notre Dame                    | Notre Dame      | IN    | 1998         | 5,000     |
| University of Oklahoma                      | Norman          | OK    | 1996         | 505       |
| University of Oregon                        | Eugene          | OR    | 1999         | 900       |
| University of Pennsylvania *                | Philadelphia    | PA    | 1996         | 700       |
| University of Pittsburgh                    | Pittsburgh      | PA    | 1999         | 351       |
| University of Portland                      | Portland        | OR    | 2003         | 65        |
| University of Rhode Island                  | Kingston        | RI    | 2001         | 151       |
| University of Richmond                      | Richmond        | VA    | 1993         | 325       |
| University of Rochester                     | Rochester       | NY    | 1995         | 200       |
| University of South Dakota                  | Vermillion      | SD    | 2001         | 520       |
| University of Southern California *         | Los Angeles     | CA    | 1986         | 2,600     |
| University of Southern Mississippi          | Hattiesburg     | MS    | 2002         | 308       |
| University of St. Thomas                    | St. Paul        | MN    | 1999         | 3,000     |
| University of Tampa                         | Tampa           | FL    | 2003         | 155       |
| University of Tennessee - Martin            | Martin          | TN    | 1998         | 460       |
| University of Tennessee- Knoxville          | Knoxville       | TN    | 1998         | 1,000     |
| University of Tennessee - Chattanooga       | Chattanooga     | TN    | 1998         | 510       |
| University of Texas                         | Austin          | TX    | 1994         | 17,000    |
| University of the Pacific                   | Stockton        | CA    | 2007         | 1,100     |
| University of Toledo *                      | Toledo          | OH    | 2005         | 1,000     |
| University of Tulsa                         | Tulsa           | OK    | 1998         | 1,577     |
| University of Utah                          | Salt Lake City  | UT    | 1998         | 18,173    |
| University of Virginia - McIntire School    | Charlottesville | VA    | 1994         | 500       |
| University of Virginia - Darden Graduate *  | Charlottesville | VA    | 1990         | 6,200     |
| University of Washington *                  | Seattle         | WA    | na           | 50        |
| University of Wisconsin-Eau Claire          | Eau Claire      | WI    | 2003         | 250       |
| University of Wisconsin-Madison             | Madison         | WI    | 1970         | 62,000    |
| University of Wisconsin-Whitewater          | Whitewater      | WI    | 1999         | 85        |
| University of Wisconsin- Oshkosh            | Oshkosh         | WI    | 2000         | 135       |
| University of Wisconsin - Platteville*      | Platteville     | WI    | 2001         | 190       |
| University of Wyoming                       | Laramie         | WY    | 2005         | 1,700     |
| Utah State University *                     | Logan           | UT    | 1985         | 50        |

| University Name                     | City           | Province         | Country         | Year Started | Funds 2007 \$000 |
|-------------------------------------|----------------|------------------|-----------------|--------------|------------------|
| Birla Institute of Tech. & Sciences | Pilani         | Rajasthan        | India           | 2007         | 3                |
| Bishop's University                 | Sherbrooke     | Quebec           | Canada          | 1996         | 485              |
| Bond University                     | Gold Coast     | Queensland       | Australia       | na           | 28               |
| Brock University                    | St. Catharines | Ontario          | Canada          | 1995         | 17               |
| Concordia University                | Montreal       | Quebec           | Canada          | 1999         | 1,378            |
| Hebrew University of Jerusalem      | Jerusalem      |                  | Israel          | 1999         | 580              |
| HEC Montreal                        | Montreal       | Quebec           | Canada          | 1999         | 3,810            |
| London Business School              | London         |                  | United Kingdom  | 2003         | 300              |
| Maastricht University               | Maastricht     | Limburg          | The Netherlands | 1994         | 70               |
| Massey University                   | Auckland       |                  | New Zealand     | 1995         | 15               |
| McGill University *                 | Montreal       | Quebec           | Canada          | na           | 10               |
| Punjab College of Technical Ed      | Ludhiana       | India            | na              | 3            |                  |
| Queens University *                 | Kingston       | Ontario          | Canada          | 2001         | 3,000            |
| Simon Fraser University             | Vancouver      | British Columbia | Canada          | 2003         | 9,983            |
| St. Francis Xavier University       | Antigonish     | Nova Scotia      | Canada          | 2000         | 2                |
| St. Mary's University               | Halifax        | Nova Scotia      | Canada          | 2005         | 184              |
| University of Alberta               | Edmonton       | Alberta          | Canada          | 1998         | 1,292            |
| University of British Columbia *    | Vancouver      | British Columbia | Canada          | 1987         | 3,514            |
| University of Calgary               | Calgary        | Alberta          | Canada          | 1996         | 361              |
| University of Edinburgh             | Edinburgh      |                  | United Kingdom  | 1997         | na               |
| University of Guam                  | Mangilao       | Guam             | US Territory    | 2006         | 53               |
| University of Manitoba              | Winnipeg       | Manitoba         | Canada          | 1997         | 11               |
| University of New Brunswick         | Fredericton    | New Brunswick    | Canada          | 1998         | 2,200            |
| University of Toronto *             | Toronto        | Ontario          | Canada          | 2007         | 17               |
| Wilfrid Laurier University          | Waterloo       | Ontario          | Canada          | 2001         | 340              |

\* Did not respond to survey. Information collected from media and institution's web site.

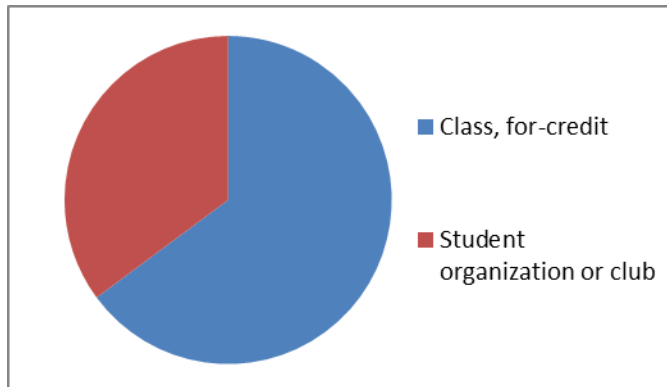
## Appendix B - Stumbaugh SMIF Survey

### What is your academic standing?



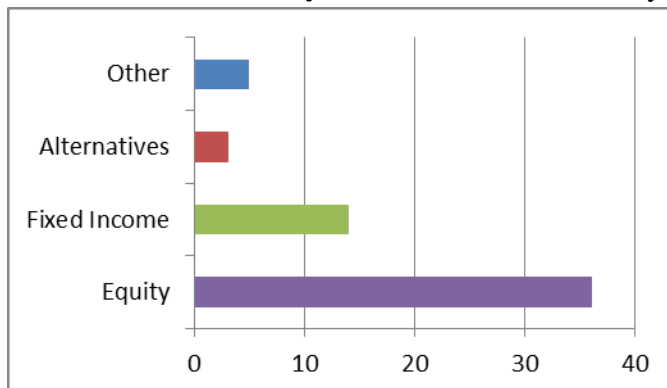
|                                 |           |            |
|---------------------------------|-----------|------------|
| <b>Undergraduate Student</b>    | <b>11</b> | <b>30%</b> |
| <b>Graduate Student</b>         | <b>6</b>  | <b>16%</b> |
| <b>Faculty Member</b>           | <b>17</b> | <b>46%</b> |
| <b>University/College Staff</b> | <b>3</b>  | <b>8%</b>  |
| <b>Other</b>                    | <b>0</b>  | <b>0%</b>  |

### What is the structure of your SMIF?



|                                  |           |            |
|----------------------------------|-----------|------------|
| <b>Class, for-credit</b>         | <b>24</b> | <b>65%</b> |
| <b>Student organization/Club</b> | <b>13</b> | <b>35%</b> |
| <b>Faculty Member</b>            | <b>17</b> | <b>46%</b> |

### What asset class does your fund invest in? \*May add up to more than 100%



|                     |           |            |
|---------------------|-----------|------------|
| <b>Other</b>        | <b>5</b>  | <b>14%</b> |
| <b>Alternatives</b> | <b>3</b>  | <b>8%</b>  |
| <b>Fixed Income</b> | <b>14</b> | <b>38%</b> |
| <b>Equity</b>       | <b>36</b> | <b>97%</b> |

## Appendix C - Fund Overview Data

| Structural Overview            |               |         |
|--------------------------------|---------------|---------|
| University                     | Auto Populate |         |
| Fund Name                      | Auto Populate |         |
| Operation fund structure       |               |         |
| Membership profile             |               |         |
| Fund Overview                  |               |         |
| Assets Under Management        |               |         |
| Benchmark                      |               |         |
| Equity Capitalization          |               |         |
| Primary Style Emphasis         |               |         |
| Primary Screening Approach     |               |         |
| Investment Focus               |               |         |
| Use of Cash                    |               |         |
| Current Number of Holdings     |               |         |
| Fundamental Characteristics    |               |         |
| Current Dividend Yield         |               | %       |
| Current P/E ttm                |               | x       |
| Current P/E forward            |               | x       |
| Current P/B                    |               | x       |
| Current P/S ttm                |               | x       |
| Current P/CF ttm               |               | x       |
| 5 Year ROE                     |               | %       |
| Earnings Growth (Past 5 Years) |               | %       |
| Earnings Growth (Next 5 Years) |               | %       |
| Market Capitalization          |               |         |
| Weighted Avg. Mkt. Cap         |               |         |
| Median Market Cap              |               |         |
| Policy Limits                  | Guidelines    | Maximum |
| Max Cash Position              |               | %       |
| Max Position Size              |               | %       |
| Max Sector Exposure            |               | %       |

Appendix D – Requirements Document

# **STUDENT MANAGED INVESTMENT FUND BENCHMARKING**

## **BUSINESS REQUIREMENTS**

1.0

APRIL 7, 2012

## Revision History

| VERSION NUMBER | AUTHOR                | DATE     | DESCRIPTION   |
|----------------|-----------------------|----------|---------------|
| 0.1            | Ashley Rose Stumbaugh | 4/7/2012 | Initial draft |
|                |                       |          |               |

## Sign Off

| PROJECT ROLE | APPROVAL |
|--------------|----------|
| Developer    |          |
| Dun Scott    |          |

## Table of Contents

1. SMIF Website Overview
2. SMIF Website Header
3. SMIF Website Sidebar
4. SMIF Website Footer
5. SMIF Website Pre-Log In Homepage
6. Sign Up Page
7. Log In Page
8. Data Submission Page
9. Historical Data Page
10. Participating Schools Page
11. Update User Information Page
12. Work Flow – Generating Reports



## SMIF Website Overview

Student Managed Investment Funds are popular experiential learning vehicles found in many schools of business across the country. They take many forms: size, asset class, structure, etc. but their missions remain the same: give students hands on experience managing real money. SMIFs place the dominant value on their educational components rather than returns. Despite this focus on education a number of portfolio management competitions exist: University of Dayton RISE Conference, Quinnipiac University GAME Conference, Tennessee Valley Authority Portfolio Competition, and many more. For finance students, competition is natural and a driver of their work. I propose that building a peer universe of SMIFs in which they rank based on historical performance will allow for more accurate benchmarking and a critical tool for prospective employers.

### SMIF Website Header

The header will be displayed on every page with the title “Student Managed Investment Fund Benchmarking” the sub-page title.

### SMIF Website Sidebar

The SMIF Sidebar will be displayed on every page after the user has logged in. Content includes:

The sidebar is a vertical container with a light gray background and a thin black border. It contains five main sections. The first four are rectangular buttons with a light gray background and black text, stacked vertically. The fifth section is a larger rectangular box with a light gray background and black text, containing the heading 'Important Dates:' followed by two lines of text.

|   |
|---|
| Submit Current Quarter Data   |
| View Historical Data  |
| View Participating Schools  |
| Update User Information   |
| <b>Important Dates:</b><br>Current Quarter Data Due:<br>2 Weeks after quarter end<br>Summary of Reported Data<br>to be sent: 3 Weeks after<br>quarter end |

- Submit Current Quarter Data\*
- View Historical Data\*
- View Participating Schools\*
- Update User Information\*
- Important Dates:
  - Current Quarter Data Due
  - Summary of Reported Data

\*Will link to pages described subsequently.

The only difference between the faculty and student side bar will be “Update User Information”- only the faculty log in will have permissions to update the user information.

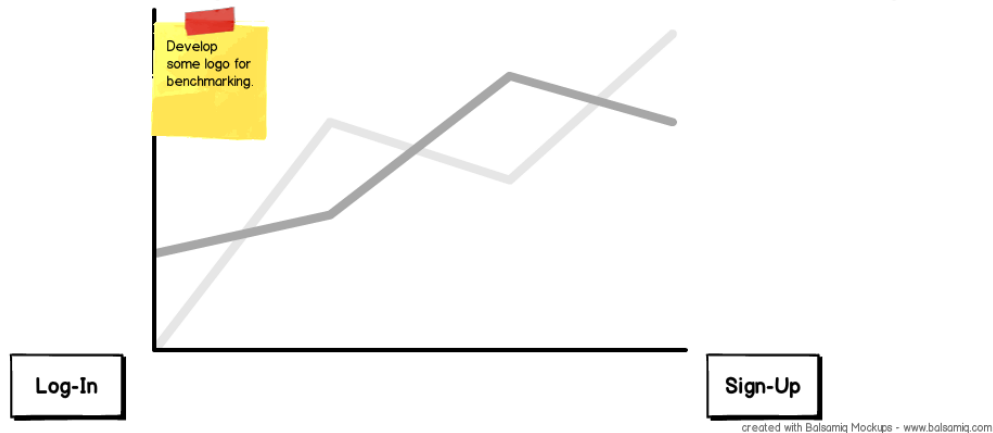
### SMIF Website Footer

The system will display the SMIF footer at the bottom of every page. The footer will display text that states “Student Managed Investment Fund Benchmarking” and the following navigational links: “Why Peer Benchmarking?”, “Log-In”, “Sign-Up”, “Contact”, and “Site Map”. Each of these links will navigate to their respective pages when they are clicked.

## SMIF Website Pre-Log In Homepage

The initial page will showcase two links: Log In or Sign-Up.

## Student Managed Investment Fund Benchmarking



### Sign Up Page

The first time a user visits the SMIF Benchmarking page they will be prompted to register in order to gain access to the site.

#### Faculty Registration

A faculty or staff member will be required to create a log-in and provide the following information:

- University Name
- SMIF Nickname
  - Allow for multiple in the event of separate graduate/undergraduate
  - ONLY Equity funds to be included in the first round. Alternative asset classes can be added at a later date
- Faculty Name
- E-mail
- Phone Number

Only one faculty member is to be registered per university at a time. Upon faculty member registration up to **two** students will be prompted to register as “child” users of

the “parent” faculty member.

## Student Managed Investment Fund Benchmarking

### Faculty Registration

|            |                                       |
|------------|---------------------------------------|
| First Name | <input type="text"/>                  |
| Last Name  | <input type="text"/>                  |
| University | <input type="text"/>                  |
| SMIF Name  | <input type="text"/>                  |
| E-Mail     | <input type="text"/>                  |
| Phone      | <input type="text"/>                  |
|            | <input type="submit" value="Submit"/> |

created with Balsamiq Mockups - [www.balsamiq.com](http://www.balsamiq.com)

### Student Registration

Students are to provide the following information:

- Student Name
- E-mail
- Phone Number

The University and SMIF names will already be prepopulated and not available for edit. The faculty member will have power to add and revoke student access as student turnover occurs.

## Student Managed Investment Fund Benchmarking

### Student Registration

|            |  |
|------------|--|
| First Name | <input type="text"/>                   |
| Last Name  | <input type="text"/>                   |
| University | <input type="text" value="Populated"/> |
| SMIF Name  | <input type="text" value="Populated"/> |
| E-Mail     | <input type="text"/>                   |
| Phone      | <input type="text"/>                   |
|            | <input type="submit" value="Submit"/>  |

created with Balsamiq Mockups - [www.balsamiq.com](http://www.balsamiq.com)

## Log In Page

After the faculty member/student has completed the sign-up page they will select “Log-In” on the homepage at each subsequent visit.

# Student Managed Investment Fund Benchmarking

Log In

E-Mail (Username?)

Password

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## Data Submission Page

When the “Submit Quarterly Data” link is selected it will bring you to the first data submission page. There are four data submission pages:

- Fund Overview
- Performance Table
- Holdings Table
- Industry Allocation

Each page will be populated with the information from the SMIF Template excel document. The Fund Overview and Industry Allocation will have individual text boxes to complete while the Performance and Holdings Tables will be large text areas where one will copy and paste data from excel into the field.

The 4Q data (data submitted as of December 31 xxxx should be submitted with Full Year data. This will allow the work flow for creating reports with multi-year data to show annualized numbers instead of quarterly.

All fields on every page must be complete in order to “Save and Continue”. The Industry Allocation tab will have “Submit” as the button on the bottom.

## Student Managed Investment Fund Benchmarking

Submit Current Quarter Data

View Historical Data

View Participating Schools

Update User Information

Fund Overview

Performance Table

Holdings Table

Sector Allocation

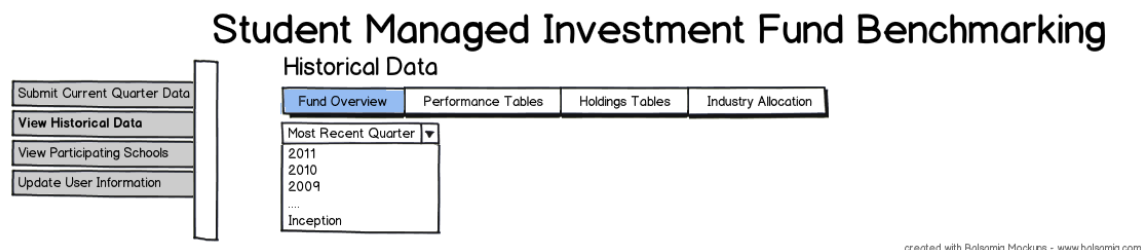
This will be populated with the data from the "Fund Overview" tab on the SMIF Template excel file.

Save and Continue

created with Balsamiq Mockups - www.balsamiq.com

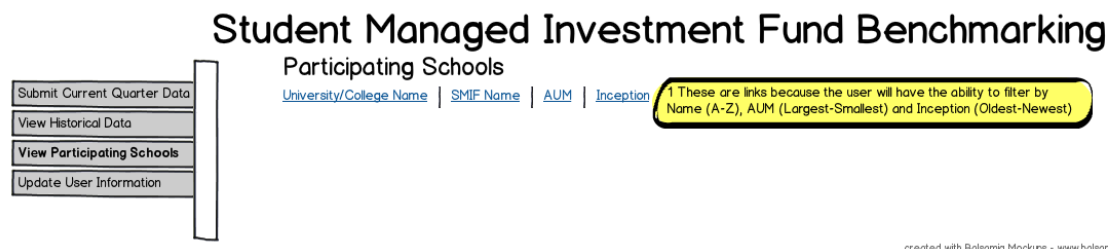
## Historical Data Page

When the “View Historical Data” link is selected it will bring the user to a set of options: First they must select which of the four data input categories they would like to see, then they must select the time periods. Each year’s data will be displayed by quarter. **Historical data will not be available to edit.** Both student and faculty users will be able to view historical data.



## Participating Schools Page

When the “View Participating Schools” link is selected it will bring the user to a list of all participating programs. The following data will be available for about each program: University Name, SMIF Name, Assets Under Management and Inception Date. The user will be able to filter through all of the programs: Names on basis of A-Z, AUM: largest-smallest, Inception: oldest-newest. Both faculty and student users have permissions to view this page.



## Update User Information Page

Only the faculty user will have permissions to edit user information. They will be able to replace student users, change their position but not edit University information.

## Work Flow – Generating Reports

Reports containing the data will be generated after the quarterly data submission period closes. This data will show the most recent year in quarters and will also display annualized numbers (using the full year data submitted by users). A template will be generated to show simple comparison: performance based on quartiles as well as a list of schools with corresponding performance. This template will be distributed to all users submitting data.