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Higher Education Investing Seminar **NACUBO Results & Portfolio Strategy**

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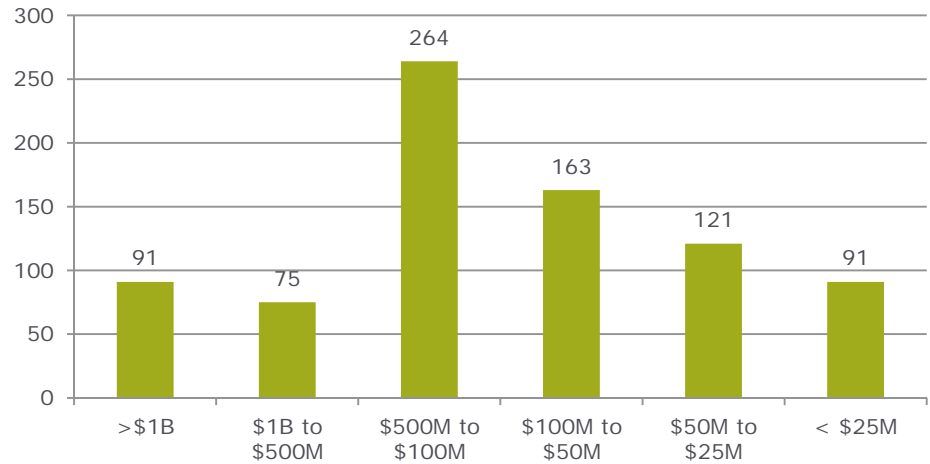
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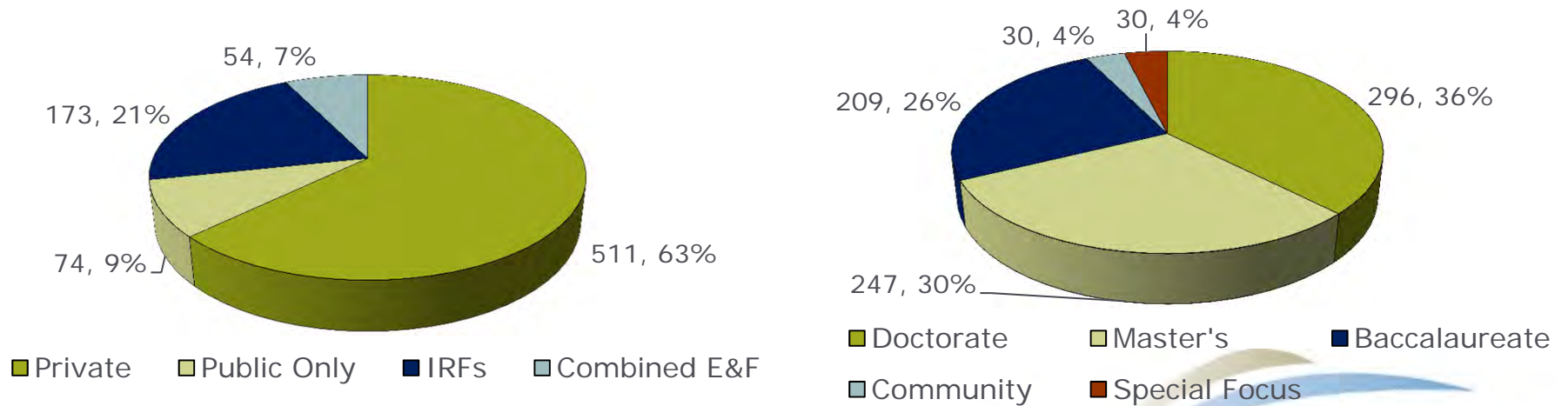
- **Results of the 2016 NACUBO Commonfund Study of Endowments**
 - 805 participating endowments representing \$515 billion assets
 - Will cover assets allocation trends, performance, fees and operating metrics
- **Perspectives on the LCMS suite of investment offerings**

Survey Participants

Number of Participating Institutions by Size



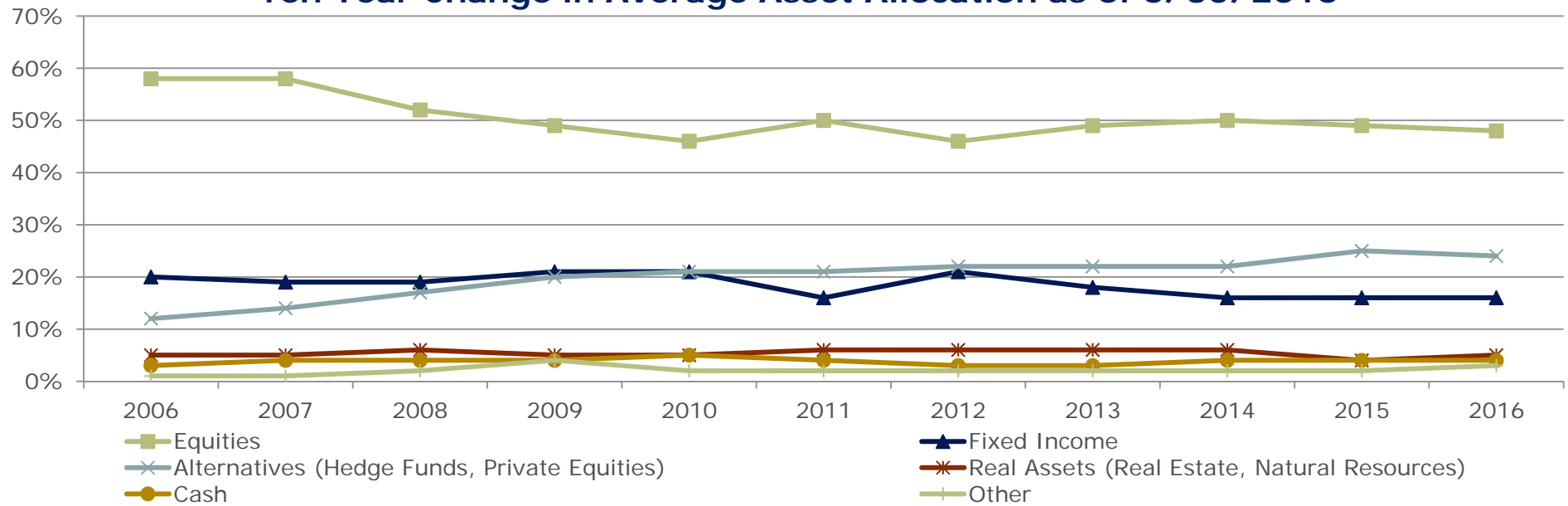
Number (and %) of Participating Institutions by Type



Source: 2016 NACUBO Commonfund Study of Endowments

Highlights of NACUBO 2016 Study

Ten Year Change in Average Asset Allocation as of 6/30/2016



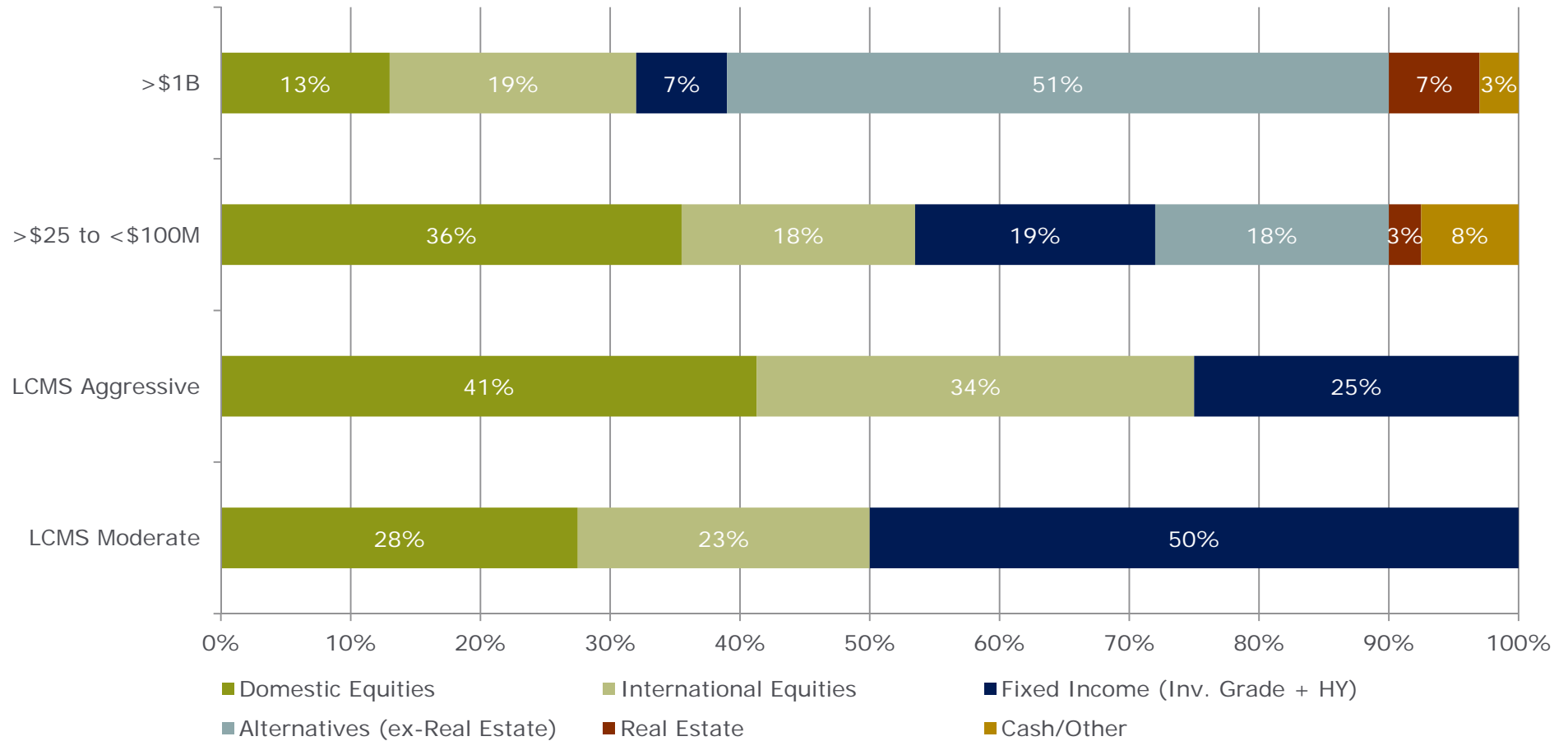
Asset Class	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Equities	58%	58%	52%	49%	46%	50%	46%	49%	50%	49%	48%
Fixed Income	20%	19%	19%	21%	21%	16%	21%	18%	16%	16%	16%
Alternatives (Hedge Funds, Private Equities)	12%	14%	17%	20%	21%	21%	22%	22%	22%	25%	24%
Real Assets (Real Estate, Natural Resources)	5%	5%	6%	5%	5%	6%	6%	6%	6%	4%	5%
Cash	3%	4%	4%	4%	5%	4%	3%	3%	4%	4%	4%
Other	1%	1%	2%	4%	2%	2%	2%	2%	2%	2%	3%

Source: 2016 NACUBO Commonfund Study of Endowments



Highlights of NACUBO 2016 Study

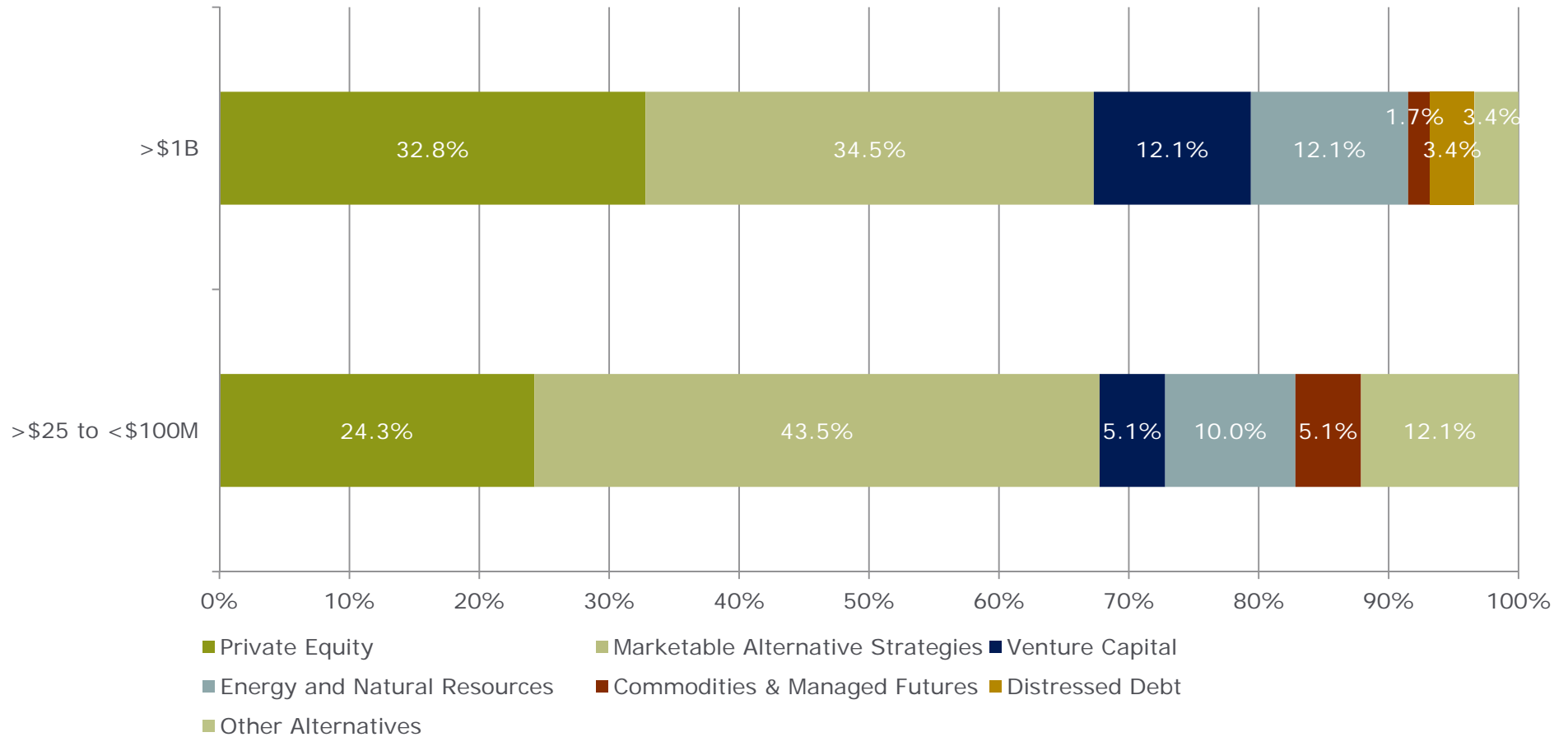
Average Asset Allocation as of 6/30/2016



Source: 2016 NACUBO Commonfund Study of Endowments



Average Alternatives Asset Allocation as of 6/30/2016



Source: 2016 NACUBO Commonfund Study of Endowments



Highlights of NACUBO 2016 Study

Average Investment Pool Returns as of 6/30/2016

Investment Pool Asset Size	1 Year	3 Year	5 Year	10 Year
> \$1B	-1.9%	6.0%	6.1%	5.7%
\$500M to \$1B	-2.2%	5.4%	5.7%	5.3%
\$100M to \$500M	-2.4%	4.9%	5.1%	4.8%
\$50M to \$100M	-1.8%	5.1%	5.0%	4.7%
\$25M to \$50M	-1.6%	5.2%	5.3%	4.7%
<\$25M	-1.0%	5.5%	5.8%	5.0%
LCMS Standard Aggressive Balanced Fund	-0.8%	6.4%	6.5%	5.3%
LCMS Standard Moderate Balanced Fund	1.7%	6.1%	6.2%	5.5%
LCMS Standard Conservative Balanced Fund	3.1%	4.9%	5.1%	5.5%
Average	-0.8%	5.5%	5.6%	5.2%
Benchmark	1 Year	3 Year	5 Year	10 Year
S&P 500	4.0%	11.7%	12.1%	7.4%
MSCI EAFE	-10.2%	2.1%	1.7%	1.6%
MSCI EM	-12.1%	-1.6%	-3.8%	3.5%
Barclays Aggregate	6.0%	4.1%	3.8%	5.1%
Credit Suisse Leveraged Loan	0.9%	3.0%	4.0%	4.2%
Dow Jones Credit Suisse Hedge Fund	-4.2%	2.5%	2.9%	4.2%
Cambridge PE	3.2%	10.9%	11.4%	14.4%

Source: 2016 NACUBO Commonfund Study of Endowments



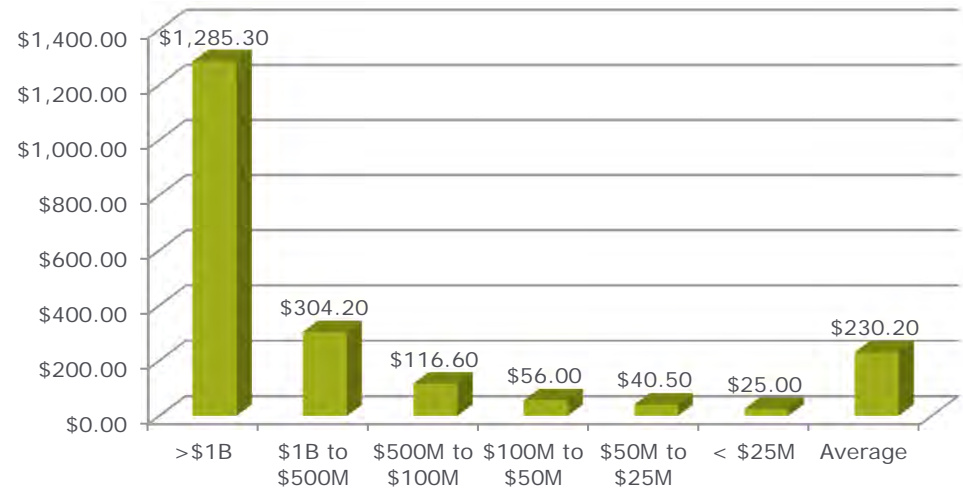
Cost of Managing Investment Programs

Standard Funds			Preference Funds		
	LCMS	Industry Avg.		LCMS	Industry Avg.
Money Market	0.12%	0.12%	Money Market	0.12%	0.12%
Fixed Income	0.27%	0.38%	Core Bond	0.19%	0.31%
Conservative Balanced	0.29%	0.44%	High Yield Bond	0.57%	0.65%
Moderate Balanced	0.31%	0.49%	Domestic Equity	0.20%	0.41%
Aggressive Balanced	0.34%	0.55%	International Equity	0.56%	0.85%
Equity	0.36%	0.61%			

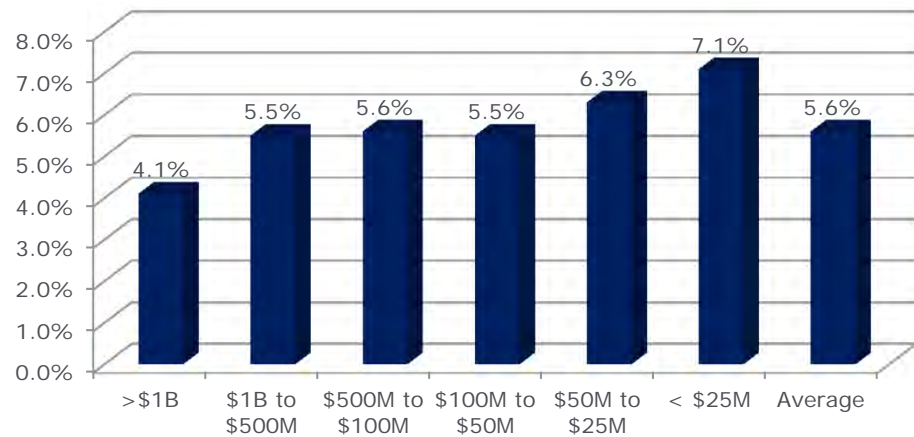
Source: eVestment. For Standard Funds, industry average figures are determined by multiplying LCMS asset class weightings within each option by the industry average cost for each asset class.



Debt Levels As of 6/30/2016



Debt Service as a % of Operating Budget



Source: 2016 NACUBO Commonfund Study of Endowments



Highlights of NACUBO 2016 Study

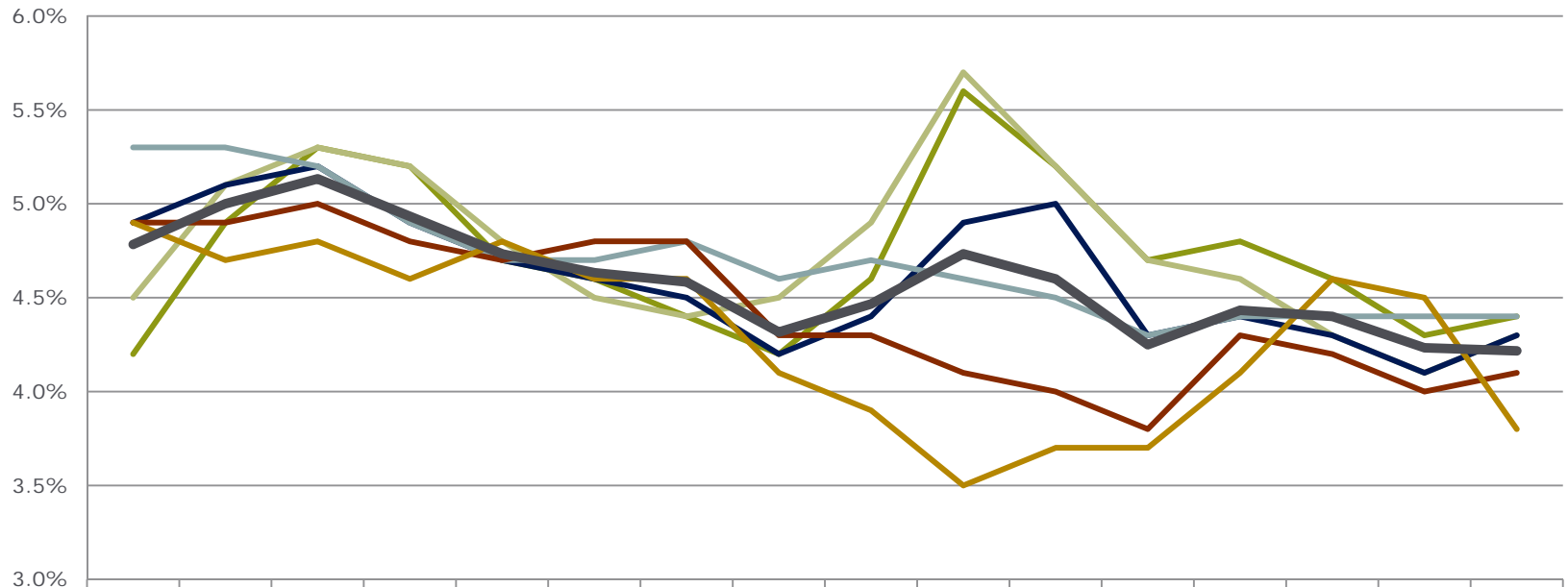
Annual Spending Rule									
	Spend All Current Income	% of Moving Average	Select Rate Annually	Increase Prior Year's Spending by Pre-specified %	Spend Pre-specified % of Beg. MVs	Increase Prior Year's Spending by Inflation Rate with Upper and Lower Bands	Weighted Avg. or Hybrid Method	Meet IRS Min. of 5%	Other
> \$1B	2%	59%	20%	2%	2%	12%	18%	0%	3%
≤ \$1B to > \$500 M	4%	65%	9%	1%	0%	12%	19%	0%	4%
≤ \$500M to > \$100 M	2%	79%	12%	-	3%	4%	12%	0%	2%
≤ \$100 M to > \$50 M	3%	85%	13%	0%	4%	2%	4%	1%	3%
≤ \$50 M to > \$25 M	7%	83%	21%	0%	5%	1%	2%	1%	3%
≤ \$25 M	4%	76%	20%	0%	4%	2%	3%	3%	3%
Average	3%	77%	15%	-	3%	4%	9%	1%	3%

Source: 2016 NACUBO Commonfund Study of Endowments
 Cells with no numbers represent a sample size too small to analyze



Highlights of NACUBO 2016 Study

Average Annual Calculated Spending Rate, 2001-2016

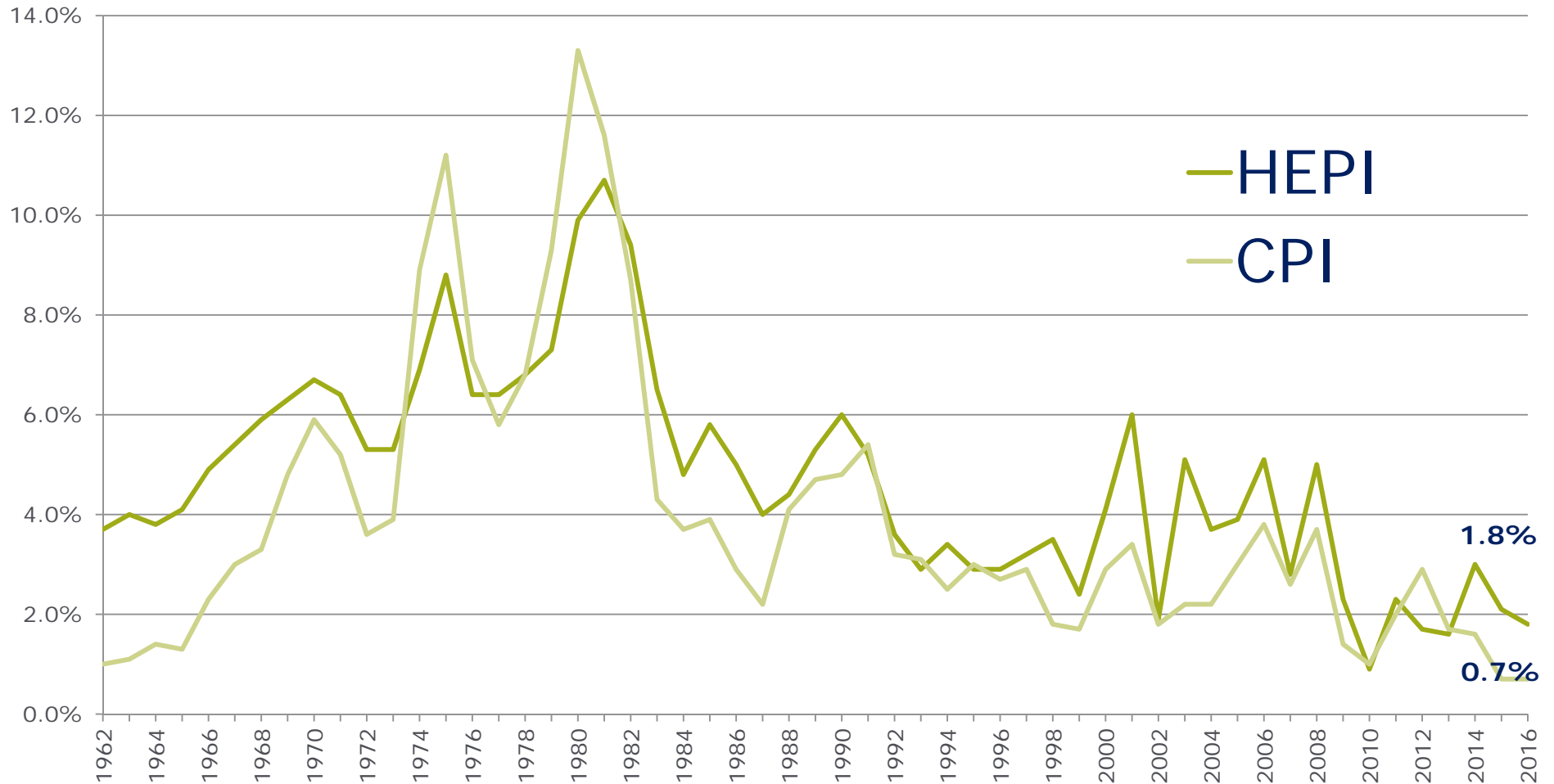


	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
>\$1B	4.2%	4.9%	5.3%	5.2%	4.7%	4.6%	4.4%	4.2%	4.6%	5.6%	5.2%	4.7%	4.8%	4.6%	4.3%	4.4%
≤ \$1B to > \$500 M	4.5%	5.1%	5.3%	5.2%	4.8%	4.5%	4.4%	4.5%	4.9%	5.7%	5.2%	4.7%	4.6%	4.3%	4.1%	4.3%
≤ \$500M to > \$100 M	4.9%	5.1%	5.2%	4.9%	4.7%	4.6%	4.5%	4.2%	4.4%	4.9%	5.0%	4.3%	4.4%	4.3%	4.1%	4.3%
≤ \$100 M to > \$50 M	5.3%	5.3%	5.2%	4.9%	4.7%	4.7%	4.8%	4.6%	4.7%	4.6%	4.5%	4.3%	4.4%	4.4%	4.4%	4.4%
≤ \$50 M to > \$25 M	4.9%	4.9%	5.0%	4.8%	4.7%	4.8%	4.8%	4.3%	4.3%	4.1%	4.0%	3.8%	4.3%	4.2%	4.0%	4.1%
≤ \$25 M	4.9%	4.7%	4.8%	4.6%	4.8%	4.6%	4.6%	4.1%	3.9%	3.5%	3.7%	3.7%	4.1%	4.6%	4.5%	3.8%
Average	4.8%	5.0%	5.1%	4.9%	4.7%	4.6%	4.6%	4.3%	4.5%	4.7%	4.6%	4.3%	4.4%	4.4%	4.2%	4.2%

Source: 2016 NACUBO Commonfund Study of Endowments



Historical HEPI vs CPI



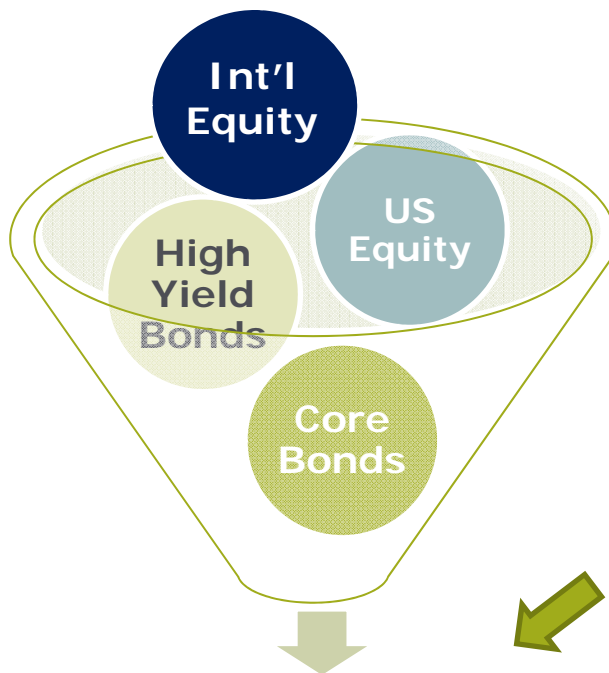
HEPI – Higher Education Price Index
CPI – Consumer Price Index



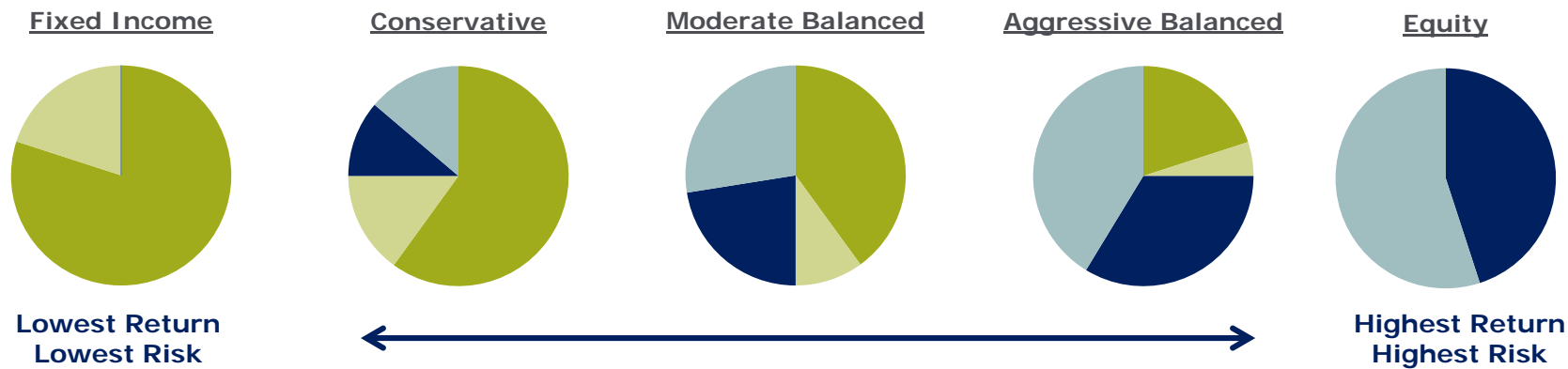
Source: Commonfund

Investment Options – Members Decide How They Want to Invest

Members' can customize by selecting directly from the four **Preference Funds...**



And/or invest along a continuum of increasing return and risk through the five diversified **Standard Fund** offerings



- **Committed and qualified staffs**
- **Oversight by experienced volunteer Trustees**
- **Thoughtfully constructed investment programs**
- **Liquid and accessible**
- **Efficient and cost effective offerings**
- **Applies many industry best practices in operations**
- **Changes are made with thorough due diligence**

Average Asset Class Breakdown as of 6/30/2016 (in %)

Asset Class	Total (Dollar Wtd.)	>\$1B	≤ \$1B to > \$500 M	≤ \$500M to > \$100 M	≤ \$100 M to > \$50 M	≤ \$50 M to > \$25 M	≤ \$25 M
Domestic Equities							
Active	70	74	68	63	56	68	64
Indexed (Passive Enhanced)	30	26	32	37	44	32	36
Fixed Income							
Active	57	58	54	55	58	58	66
Passive	21	19	26	23	22	22	23
Domestic Non-investment Grade	9	10	5	10	7	12	4
International Bonds	10	11	12	8	10	6	5
Emerging Markets	3	2	3	4	3	2	2
International Equities							
Active MSCI EAFE	50	47	56	55	54	57	57
Passive/Index MSCI EAFE	11	9	13	17	23	20	23
Emerging Markets	39	44	31	28	23	23	20
Alternatives							
Private Equity	33	35	27	25	26	30	12
Marketable Alternative Strategies	39	37	49	51	55	51	69
Venture Capital	11	12	7	6	4	3	3
Energy and Natural Resources	14	13	14	15	13	14	15
Distressed Debt	3	3	3	3	2	2	1

Source: 2016 NACUBO Commonfund Study of Endowments



Percent of Indexed/Passive Assets as of 6/30/2016		
Assets by Size	Passive Equities	Passive Fixed Income
>\$1B	17.5%	19.0%
≤ \$1B to > \$500 M	22.5%	26.0%
≤ \$500M to > \$100 M	27.0%	23.0%
≤ \$100 M to > \$50 M	33.5%	22.0%
≤ \$50 M to > \$25 M	26.0%	22.0%
≤ \$25 M	29.5%	23.0%
Dollar Wtd. Average	20.5%	21.0%
LCMSF Standard Aggressive Balanced Fund	31.5%	0.0%
LCMSF Standard Moderate Balanced Fund	21.0%	0.0%

Source: 2016 NACUBO Commonfund Study of Endowments

