

Technical Appendix

**AN EVALUATION OF PRIVATE FOUNDATION
MODEL PORTFOLIOS, INVESTMENT RETURNS, & PAYOUT RATES**

Introduction

- › This document includes additional statistics and calculations that were removed from the full report for simplicity and/or brevity. The full report is available online at <https://www.michiganfoundations.org/resources/payout-study>.
- › Tables include additional data for matching tables in the full report.
- › We have included a special calculation where the authors examined how calculated returns would change if we excluded foundations with a fiscal year other than the calendar year. The returns did change, but not in a way that caused a material difference in the report findings. Therefore, the full report includes all foundations (regardless of fiscal year).
- › All data is drawn from the IRS Form 990 archive maintained on Amazon Web Services and published by the Internal Revenue Service. Researchers at the Johnson Center maintain a weekly archive of this entire data set. All figures were drawn from specific lines of the IRS Form 990-PF documents, as noted below. (The table includes the 2017 line numbers for convenience only, as form line item numbers can vary from year to year.)

Variable	Formula	2017 IRS Form 990-PF Field
Total assets, end of year (EOY)	N/A	Part II line 16c
Total assets, beginning of year (BOY)	Prior year's end of year balance	N/A
Total investment gain	Total assets EOY - Total assets BOY + total expenses - investment expenses - total revenue + investment revenue	Total assets EOY - Total assets BOY + Part I line 26a - Part I line 26b - Part I line 12a + Part I line 12b
Calculated return	Total investment gain / (Total assets BOY + 50% of contributions)	Total investment gain / (Total assets BOY + 50% of Part I line 1a)
Corpus	Net value of noncharitable assets	Part X line 5
Payout	Adjusted qualifying distributions	Part XII line 6

Analysis: Fiscal Year Ending

- › How do the calculated annual investment returns change if we exclude foundations with fiscal years ending on dates other than 12/31?
 - Investment returns for the model portfolios were calculated on a calendar-year basis.
 - If a foundation's fiscal year is not the calendar year, the analysis would be comparing two different periods of time when we look at foundation investment returns versus modeled investment returns.

Month	Percent of Foundations
January	0.5%
February	0.6%
March	1.4%
April	1.2%
May	1.3%
June	6.1%
July	1.2%
August	1.2%
September	2.9%
October	1.4%
November	2.5%
December	79.7%

Analysis: Fiscal Year Ending

Year	Number of Foundations	25 th Percentile Return	Median Return	75 th Percentile Return
National Detail, All Foundations				
2014	39,094	-0.8%	1.7%	5.5%
2015	45,829	-3.4%	-0.9%	0.5%
2016	50,151	-2.0%	3.3%	7.5%
2017	53,703	-2.0%	6.0%	12.1%
2018	48,709	-8.3%	-4.4%	-1.7%
National Detail, Fiscal Year Ending December Only				
2014	27,435	-0.7%	2.7%	6.1%
2015	33,170	-3.5%	-1.3%	-0.3%
2016	37,347	-2.0%	3.0%	6.3%
2017	41,118	-1.9%	8.0%	13.1%
2018	42,513	-8.7%	-5.4%	-1.9%

Table 2

AVERAGE ANNUAL REAL RETURNS FOR MODEL PORTFOLIOS BY STUDY PERIOD

Average Annual Real Return, Per Study Period	35% Fixed Income	25% Fixed Income
Cambridge		
1974 - 1997	6.0%	N/A
1973 - 2002 (to capture "dot com" bubble)	5.2%	5.2%
1973 - 2010 (to capture early years of The Great Recession)	4.8%	4.9%
1986 - 2009	6.2%	6.4%
1973 - 2014	5.4%	5.6%
PMFA		
1973 - 2002 (prior model alignment check)	5.1%	5.3%
1986 - 2009 (prior model alignment check)	6.2%	6.4%
2014 - 2019 (new model including international equities)	5.6%	6.0%

Table 3

REAL ANNUAL RETURNS FOR MODEL PORTFOLIOS, DOMESTIC AND GLOBAL EQUITY, BY YEAR

Model	2014	2015	2016	2017	2018	2019
Domestic Equity Only						
35% fixed income	10.2%	0.4%	6.7%	12.9%	-4.6%	21.0%
25% fixed income	10.9%	0.5%	7.6%	14.7%	-5.0%	23.1%
Global Equity						
35% fixed income	6.1%	-1.2%	5.5%	13.5%	-6.8%	18.5%
25% fixed income	5.9%	-1.6%	6.1%	15.5%	-7.8%	20.2%

Table 4

MEDIAN REAL RETURNS, IRS FORM 990-PF DATA VS. MODEL PORTFOLIOS, BY YEAR

Year	Median Return, Michigan, IRS 990-PF	Median Return, USA, IRS 990- PF	Global Equity, 35% Fixed Income	Global Equity, 25% Fixed Income
2014	1.8%	1.7%	6.1%	5.9%
2015	-1.3%	-0.9%	-1.2%	-1.6%
2016	3.3%	3.3%	5.5%	6.1%
2017	7.1%	6.0%	13.5%	15.5%
2018	-5.5%	-4.4%	-6.8%	-7.8%

Table 5

REAL ANNUAL INVESTMENT RETURNS, ALL ELECTRONIC FILERS

Year	Number of Foundations	25 th Percentile Return	Median Return	75 th Percentile Return
Michigan Detail				
2014	1,229	-0.8%	1.8%	5.0%
2015	1,304	-4.0%	-1.3%	0.1%
2016	1,407	-2.0%	3.3%	7.1%
2017	1,462	-1.8%	7.1%	12.4%
2018	1,365	-9.2%	-5.5%	-1.9%
National Detail				
2014	39,094	-0.8%	1.7%	5.5%
2015	45,829	-3.4%	-0.9%	0.5%
2016	50,151	-2.0%	3.3%	7.5%
2017	53,703	-2.0%	6.0%	12.1%
2018	48,709	-8.3%	-4.4%	-1.7%

Table 6

MEDIAN RETURNS EXCLUDING CASH-HEAVY FOUNDATIONS

Year	Median Return, Michigan, IRS 990-PF	Median Return, USA, IRS 990- PF	Global Equity, 35% Fixed Income	Global Equity, 25% Fixed Income
2014	2.6%	3.0%	6.1%	5.9%
2015	-1.9%	-1.4%	-1.2%	-1.6%
2016	4.6%	4.6%	5.5%	6.1%
2017	9.1%	8.4%	13.5%	15.5%
2018	-6.7%	-5.8%	-6.8%	-7.8%
5-year Annualized Return	1.4%	1.6%	3.2%	3.3%

Table 7

ANNUAL MEDIAN PAYOUT RATE, PRIVATE FOUNDATIONS

Year	Number of Foundations	25 th Percentile Payout	Median Payout	75 th Percentile Payout
Michigan Detail				
2013	1,174	4.7%	5.8%	15.6%
2014	1,235	4.8%	5.9%	17.8%
2015	1,303	5.0%	6.0%	16.7%
2016	1,406	4.9%	6.2%	18.9%
2017	1,462	4.7%	5.9%	16.5%
2018	1,331	4.8%	5.9%	16.5%
National Detail				
2013	37,629	4.5%	5.8%	17.5%
2014	43,776	4.6%	5.7%	16.5%
2015	47,710	4.9%	5.9%	17.0%
2016	50,787	4.8%	5.9%	17.1%
2017	54,638	4.6%	5.6%	16.1%
2018	50,528	4.7%	5.5%	14.3%

Table 8: Michigan

NUMBER OF PRIVATE FOUNDATIONS BY ANNUAL PAYOUT RATE, 2018

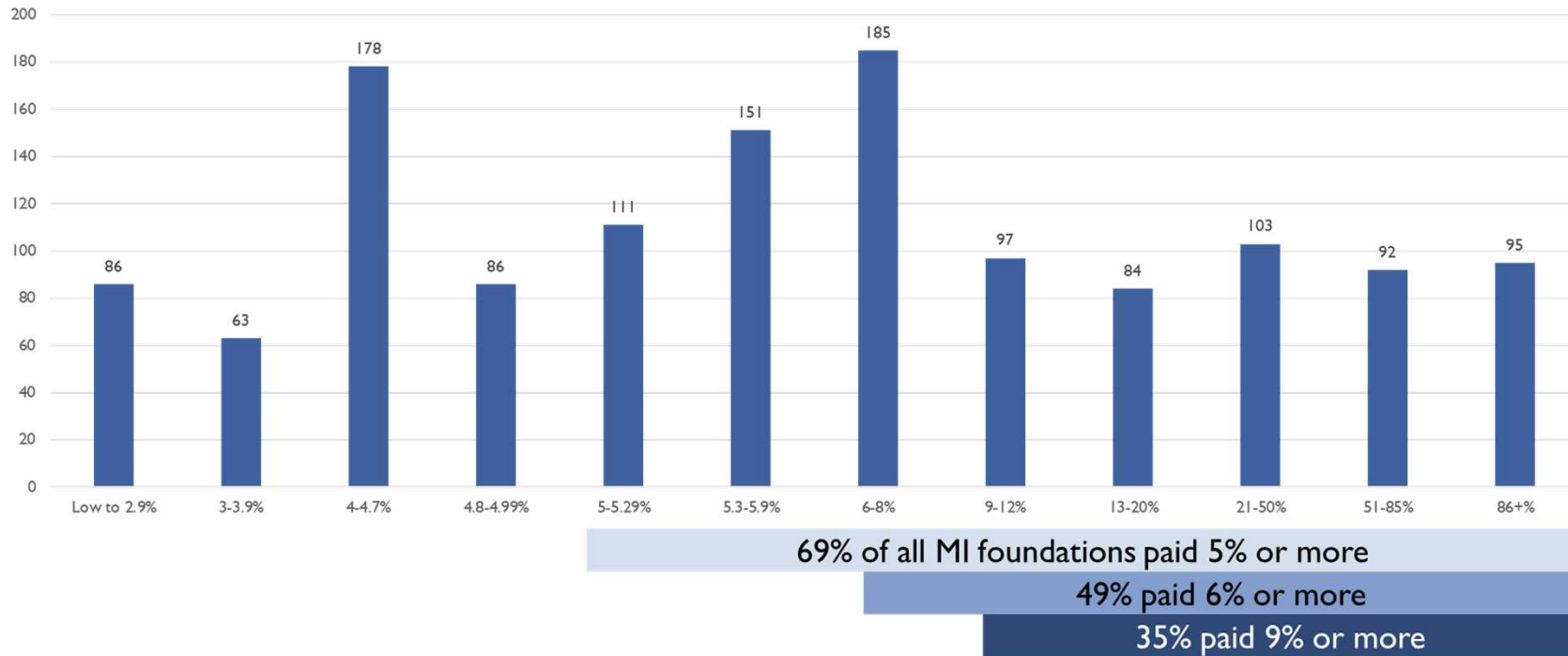


Table 8: National

NUMBER OF PRIVATE FOUNDATIONS BY ANNUAL PAYOUT RATE, 2018

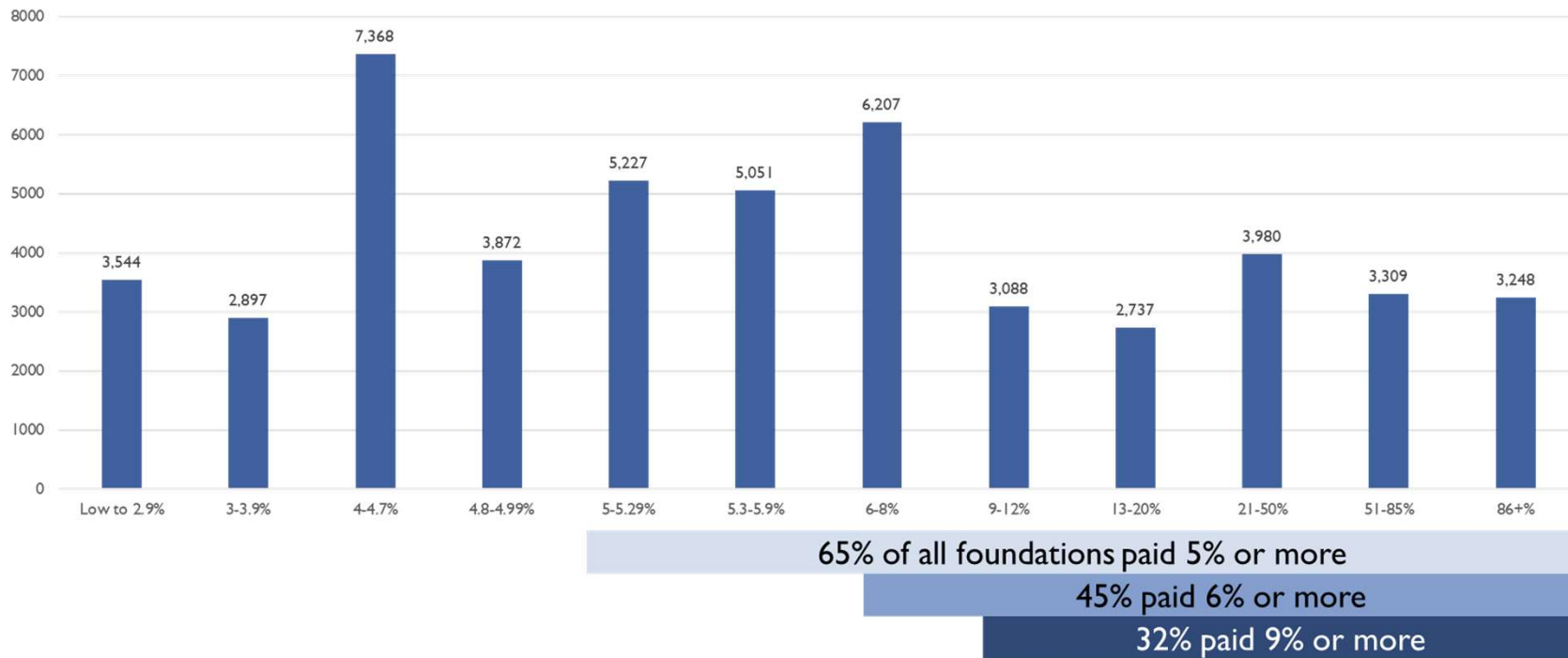


Table 9: Michigan

MICHIGAN PRIVATE FOUNDATION PAYOUT RATES, BY GROUP

Group	Year	Number of Foundations	25 th Percentile Payout	Median Payout	75 th Percentile Payout
Endowed	2013	1,025	4.6%	5.4%	10.0%
	2014	1,097	4.7%	5.5%	10.7%
	2015	1,159	4.9%	5.7%	10.7%
	2016	1,240	4.8%	5.7%	11.0%
	2017	1,282	4.6%	5.4%	10.3%
	2018	1,171	4.7%	5.5%	9.9%
Non-Endowed	2013	149	45.3%	68.9%	88.4%
	2014	138	47.1%	67.1%	88.1%
	2015	144	43.3%	71.1%	90.7%
	2016	166	42.2%	72.3%	93.3%
	2017	180	35.2%	62.7%	90.0%
	2018	160	38.5%	62.5%	91.7%

Table 9: National

NATIONAL PRIVATE FOUNDATION PAYOUT RATES, BY GROUP

Group	Year	Number of Foundations	25 th Percentile Payout	Median Payout	75 th Percentile Payout
Endowed	2013	33,326	4.4%	5.3%	10.4%
	2014	38,728	4.5%	5.3%	9.9%
	2015	42,124	4.8%	5.5%	10.3%
	2016	44,787	4.8%	5.5%	10.3%
	2017	48,411	4.6%	5.3%	9.8%
	2018	45,146	4.7%	5.3%	9.2%
Non-Endowed	2013	4,303	43.7%	69.8%	91.1%
	2014	5,048	43.7%	69.8%	90.6%
	2015	5,586	43.3%	69.7%	90.4%
	2016	6,000	40.6%	68.0%	90.2%
	2017	6,227	40.8%	67.3%	90.5%
	2018	5,382	41.7%	68.9%	90.2%

Table 10: Asset Mix Correlations

INTERNET ERA

	Core U.S. Fixed	Broad U.S. Equity	Global ex-U.S. Equity
Core U.S. Fixed	1.00		
Broad U.S. Equity	(0.09)	1.00	
Global ex-U.S. Equity	(0.10)	0.83	1.00

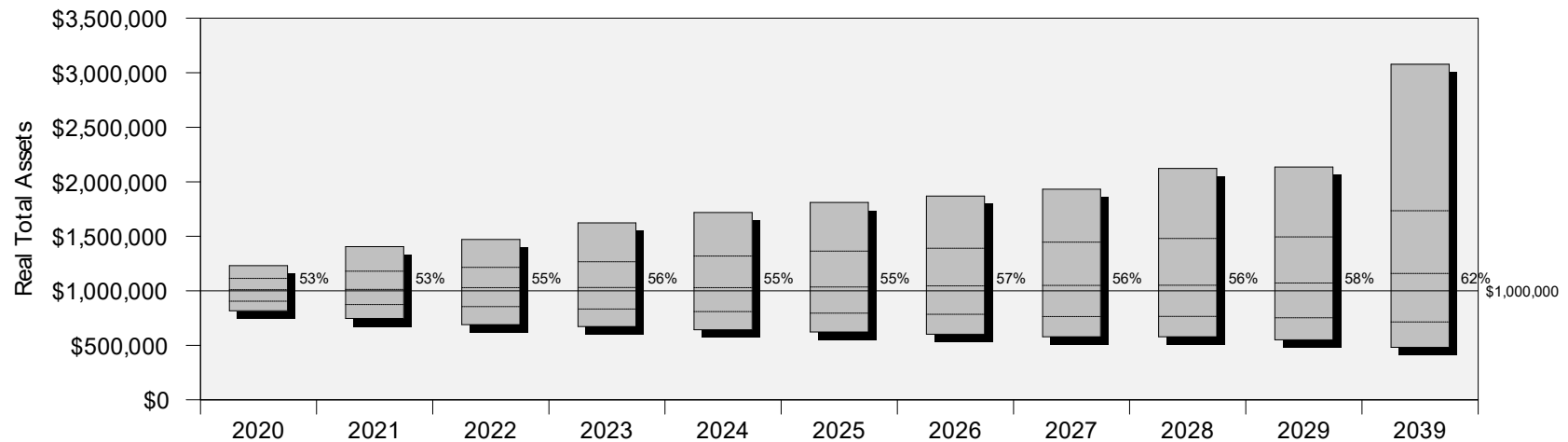
Table 14/15/21: 35% Fixed Income

INTERNET ERA: PROJECTION OF \$1 MILLION CORPUS, BY PAYOUT MODELS AND TIME PERIOD

Median Corpus Balance <i>Odds of > \$1 Million</i>	5% Baseline Draw	7% Temporary Model (3 Year Draw)	10% Temporary Model (3 Year Draw)
1 Year	\$1,009,791 52.9%	\$988,794 46.9%	\$959,074 34.9%
5 Years	\$1,029,556 54.9%	\$972,255 45.9%	\$882,038 30.6%
10 Years	\$1,071,951 58.0%	\$1,011,309 51.6%	\$912,048 38.3%

Table 14/15/21: 35% Fixed Income

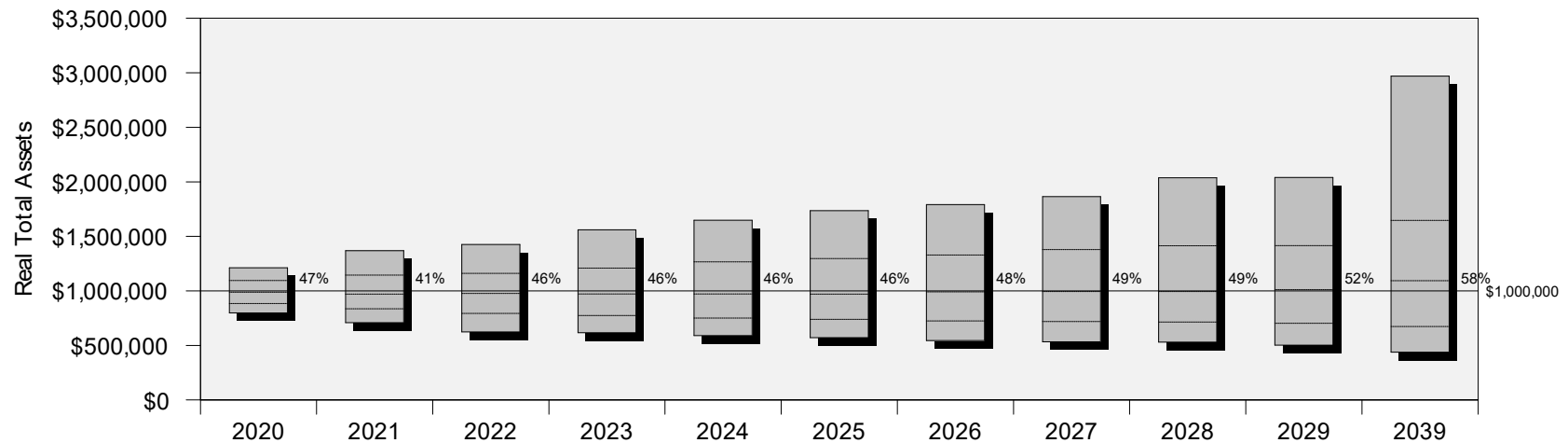
INTERNET ERA: 5% ANNUAL SPEND



2nd Percentile	\$1,231,849	\$1,405,956	\$1,470,751	\$1,623,672	\$1,718,325	\$1,810,511	\$1,868,781	\$1,932,636	\$2,123,114	\$2,135,634	\$3,078,148
16th Percentile	\$1,113,813	\$1,180,554	\$1,214,808	\$1,265,983	\$1,318,569	\$1,364,779	\$1,391,027	\$1,446,597	\$1,480,209	\$1,494,762	\$1,733,981
Median	\$1,009,791	\$1,013,308	\$1,029,753	\$1,030,771	\$1,029,556	\$1,034,554	\$1,046,079	\$1,049,695	\$1,051,793	\$1,071,951	\$1,159,820
84th Percentile	\$905,228	\$874,607	\$855,409	\$833,947	\$810,369	\$794,723	\$785,490	\$764,951	\$766,423	\$752,192	\$715,089
98th Percentile	\$817,835	\$747,631	\$689,362	\$672,144	\$642,511	\$623,013	\$601,436	\$579,050	\$578,748	\$551,385	\$482,783
Prob > \$1,000,000	52.9%	52.9%	55.3%	55.8%	54.9%	54.8%	57.1%	56.1%	55.8%	58.0%	62.4%

Table 14/15/21: 35% Fixed Income

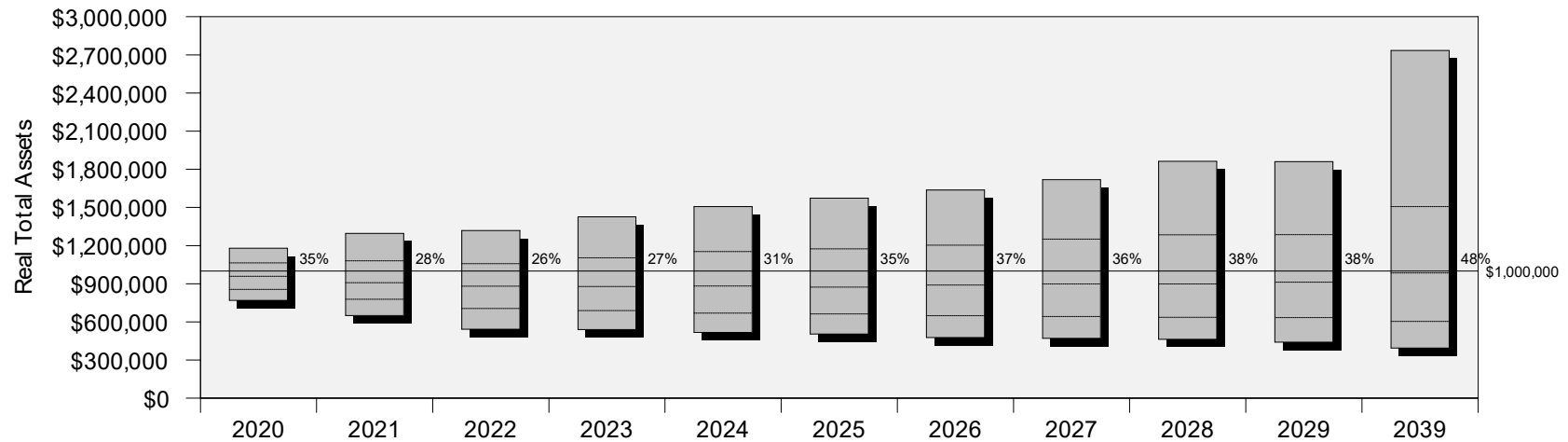
INTERNET ERA: 7% SPEND FIRST THREE YEARS, 5% THEREAFTER



2nd Percentile	\$1,211,849	\$1,368,293	\$1,426,586	\$1,561,053	\$1,647,621	\$1,736,772	\$1,792,365	\$1,865,319	\$2,037,910	\$2,040,561	\$2,969,259
16th Percentile	\$1,094,672	\$1,144,539	\$1,161,148	\$1,209,931	\$1,265,881	\$1,297,002	\$1,328,644	\$1,379,299	\$1,414,118	\$1,415,737	\$1,646,290
Median	\$988,794	\$970,565	\$976,426	\$973,012	\$972,255	\$970,494	\$991,324	\$993,595	\$993,528	\$1,011,309	\$1,094,094
84th Percentile	\$885,142	\$835,749	\$793,066	\$774,317	\$751,912	\$740,248	\$725,071	\$719,570	\$714,974	\$702,417	\$673,430
98th Percentile	\$798,008	\$708,474	\$624,255	\$616,874	\$590,260	\$572,034	\$545,021	\$533,399	\$530,610	\$502,332	\$438,402
Prob > \$1,000,000	46.9%	41.2%	46.1%	45.7%	45.9%	46.4%	47.8%	49.4%	49.0%	51.6%	58.2%

Table 14/15/21: 35% Fixed Income

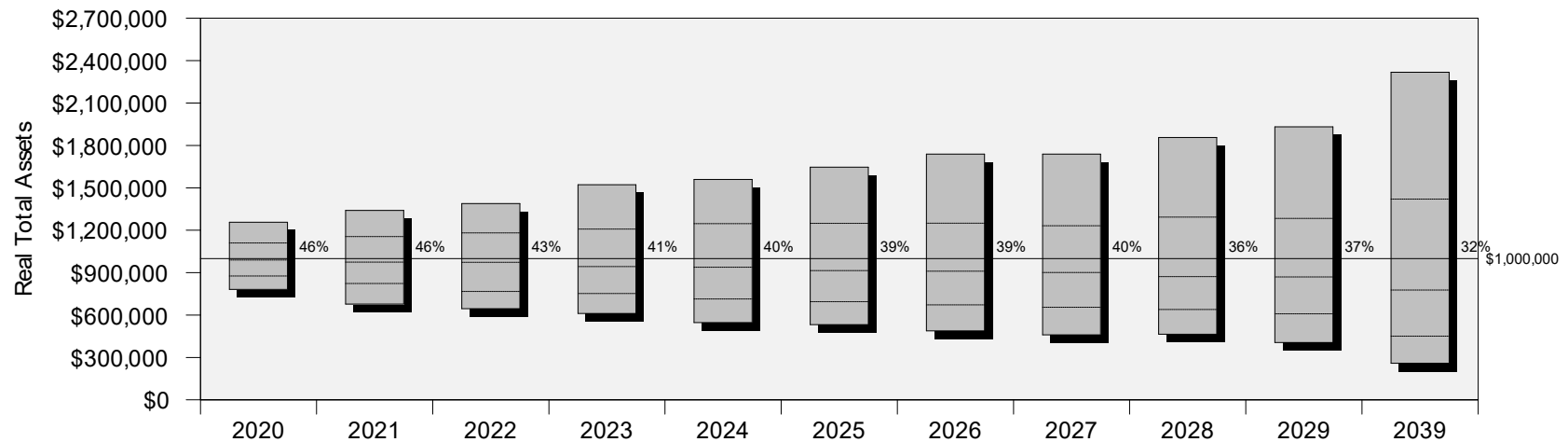
INTERNET ERA: 10% SPEND FIRST THREE YEARS, 5% THEREAFTER



2nd Percentile	\$1,179,118	\$1,296,278	\$1,319,249	\$1,427,242	\$1,506,772	\$1,573,815	\$1,636,778	\$1,718,973	\$1,862,857	\$1,860,692	\$2,734,505
16th Percentile	\$1,063,934	\$1,080,581	\$1,058,377	\$1,104,052	\$1,153,835	\$1,173,954	\$1,203,049	\$1,251,440	\$1,284,799	\$1,285,643	\$1,506,859
Median	\$959,074	\$909,087	\$881,310	\$878,652	\$882,038	\$873,827	\$889,999	\$898,306	\$898,801	\$912,048	\$984,826
84th Percentile	\$856,275	\$778,415	\$705,283	\$688,779	\$669,542	\$662,391	\$649,102	\$642,319	\$636,504	\$634,566	\$604,057
98th Percentile	\$769,960	\$650,736	\$542,580	\$540,215	\$517,335	\$504,868	\$477,180	\$471,265	\$463,128	\$440,829	\$394,187
Prob > \$1,000,000	34.9%	27.8%	25.7%	27.4%	30.6%	34.8%	37.0%	35.9%	37.9%	38.3%	48.3%

Table 18/21: 35% Fixed Income

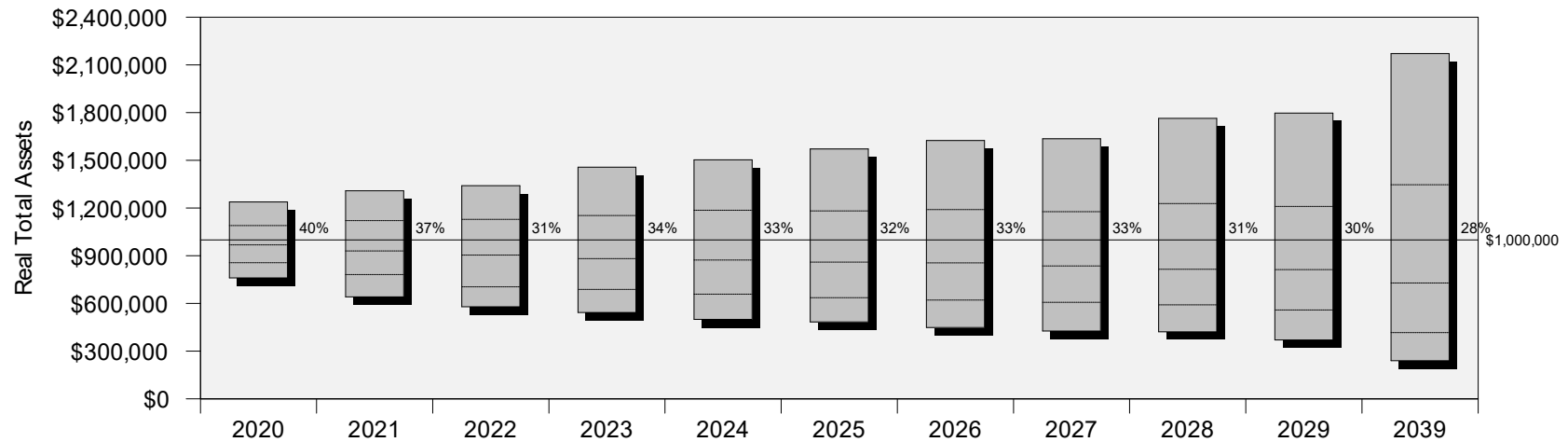
FORECAST: 5% ANNUAL SPEND



2nd Percentile	\$1,257,098	\$1,340,456	\$1,389,432	\$1,521,809	\$1,559,402	\$1,645,737	\$1,738,420	\$1,739,035	\$1,856,663	\$1,931,497	\$2,317,738
16th Percentile	\$1,110,488	\$1,155,206	\$1,181,225	\$1,208,346	\$1,246,471	\$1,248,541	\$1,249,828	\$1,232,026	\$1,293,303	\$1,283,643	\$1,420,555
Median	\$988,965	\$975,150	\$973,819	\$943,620	\$938,407	\$915,242	\$910,902	\$901,684	\$871,587	\$869,231	\$777,520
84th Percentile	\$876,264	\$823,922	\$767,212	\$752,262	\$713,808	\$694,925	\$671,841	\$655,216	\$639,456	\$609,451	\$451,264
98th Percentile	\$781,465	\$677,707	\$644,985	\$611,292	\$546,479	\$531,659	\$488,507	\$459,866	\$464,357	\$405,730	\$258,741
Prob > \$1,000,000	46.5%	45.9%	43.3%	41.0%	39.7%	38.6%	38.9%	39.5%	36.0%	36.6%	32.1%

Table 18/21: 35% Fixed Income

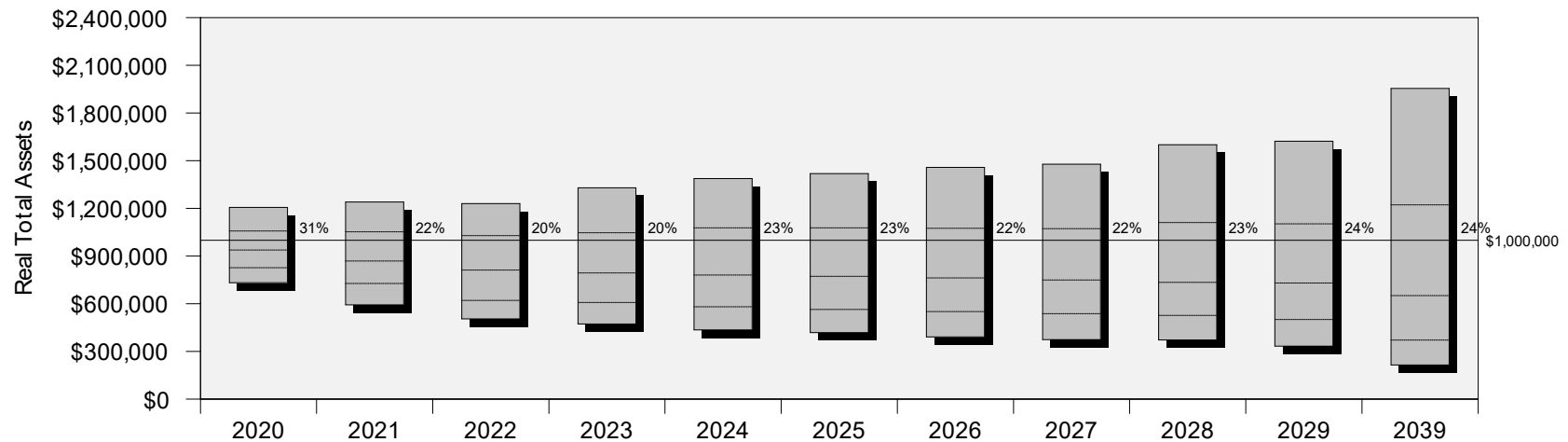
FORECAST: 7% SPEND FIRST THREE YEARS, 5% THEREAFTER



2nd Percentile	\$1,238,238	\$1,308,740	\$1,340,992	\$1,457,589	\$1,503,443	\$1,571,853	\$1,624,770	\$1,635,783	\$1,763,975	\$1,797,926	\$2,171,382
16th Percentile	\$1,090,138	\$1,121,063	\$1,128,855	\$1,152,921	\$1,186,755	\$1,182,409	\$1,190,759	\$1,177,765	\$1,228,466	\$1,210,961	\$1,346,700
Median	\$968,593	\$930,267	\$904,789	\$882,784	\$872,998	\$860,578	\$855,667	\$836,652	\$815,618	\$813,214	\$728,970
84th Percentile	\$856,238	\$782,607	\$705,078	\$689,193	\$659,162	\$636,211	\$621,924	\$607,305	\$591,916	\$559,069	\$417,153
98th Percentile	\$761,009	\$642,046	\$579,183	\$543,133	\$500,452	\$483,727	\$448,916	\$427,234	\$422,322	\$370,801	\$240,790
Prob > \$1,000,000	39.6%	36.8%	31.4%	33.6%	32.6%	31.6%	32.5%	33.4%	31.4%	30.5%	28.4%

Table 18/21: 35% Fixed Income

FORECAST: 10% SPEND FIRST THREE YEARS, 5% THEREAFTER



2nd Percentile	\$1,206,071	\$1,240,882	\$1,230,762	\$1,329,614	\$1,388,026	\$1,418,879	\$1,458,778	\$1,478,596	\$1,601,183	\$1,623,178	\$1,955,003
16th Percentile	\$1,058,365	\$1,053,186	\$1,029,232	\$1,046,816	\$1,078,437	\$1,078,226	\$1,074,851	\$1,073,025	\$1,111,254	\$1,102,972	\$1,222,422
Median	\$938,477	\$869,397	\$811,905	\$793,878	\$781,443	\$772,598	\$763,118	\$750,266	\$735,318	\$730,636	\$652,124
84th Percentile	\$827,543	\$727,626	\$621,866	\$608,841	\$581,613	\$564,812	\$551,540	\$538,370	\$527,192	\$500,926	\$371,341
98th Percentile	\$733,095	\$593,699	\$505,452	\$472,787	\$436,028	\$418,972	\$392,254	\$374,855	\$372,976	\$334,075	\$215,185
Prob > \$1,000,000	30.5%	21.8%	20.2%	19.8%	23.0%	22.7%	22.4%	22.2%	22.5%	23.8%	23.9%

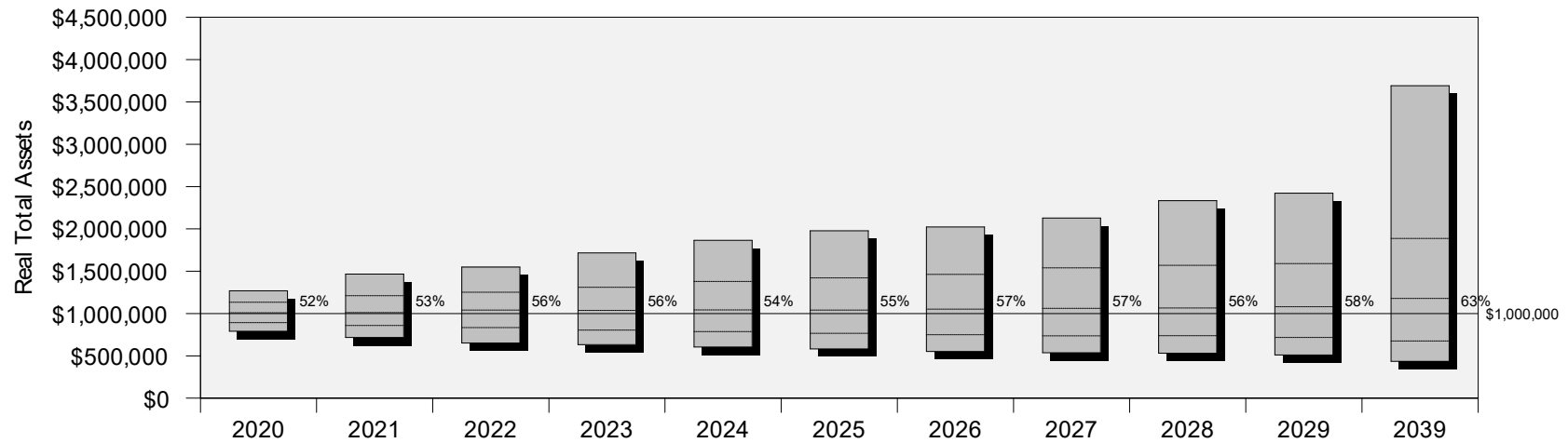
Table 14/15/21: 25% Fixed Income

INTERNET ERA: PROJECTION OF \$1 MILLION CORPUS, BY PAYOUT MODELS AND TIME PERIOD

Median Corpus Balance <i>Odds of > \$1 Million</i>	5% Baseline Draw	7% Temporary Model (3 Year Draw)	10% Temporary Model (3 Year Draw)
1 Year	\$1,009,275 52.3%	\$988,979 48.0%	\$958,945 37.0%
5 Years	\$1,043,332 54.1%	\$985,647 48.1%	\$888,594 32.9%
10 Years	\$1,081,250 57.7%	\$1,026,429 52.3%	\$926,028 40.8%

Table 14/15/21: 25% Fixed Income

INTERNET ERA: 5% ANNUAL SPEND



2nd Percentile	\$1,269,160	\$1,466,783	\$1,548,305	\$1,715,745	\$1,865,105	\$1,977,406	\$2,023,496	\$2,128,556	\$2,332,995	\$2,422,707	\$3,692,911
16th Percentile	\$1,134,298	\$1,211,400	\$1,251,950	\$1,310,365	\$1,379,735	\$1,420,694	\$1,463,050	\$1,539,593	\$1,570,816	\$1,589,919	\$1,888,277
Median	\$1,009,275	\$1,010,897	\$1,041,613	\$1,038,388	\$1,043,332	\$1,041,059	\$1,051,946	\$1,062,281	\$1,066,455	\$1,081,250	\$1,177,982
84th Percentile	\$891,879	\$859,157	\$834,432	\$805,111	\$787,412	\$766,718	\$750,083	\$736,859	\$738,814	\$717,758	\$676,913
98th Percentile	\$791,932	\$716,776	\$652,253	\$632,299	\$605,769	\$582,468	\$551,771	\$536,925	\$531,316	\$510,826	\$435,243
Prob > \$1,000,000	52.3%	53.2%	56.0%	55.8%	54.1%	55.1%	57.0%	56.9%	56.3%	57.7%	62.5%

Table 14/15/21: 25% Fixed Income

INTERNET ERA: 7% SPEND FIRST THREE YEARS, 5% THEREAFTER

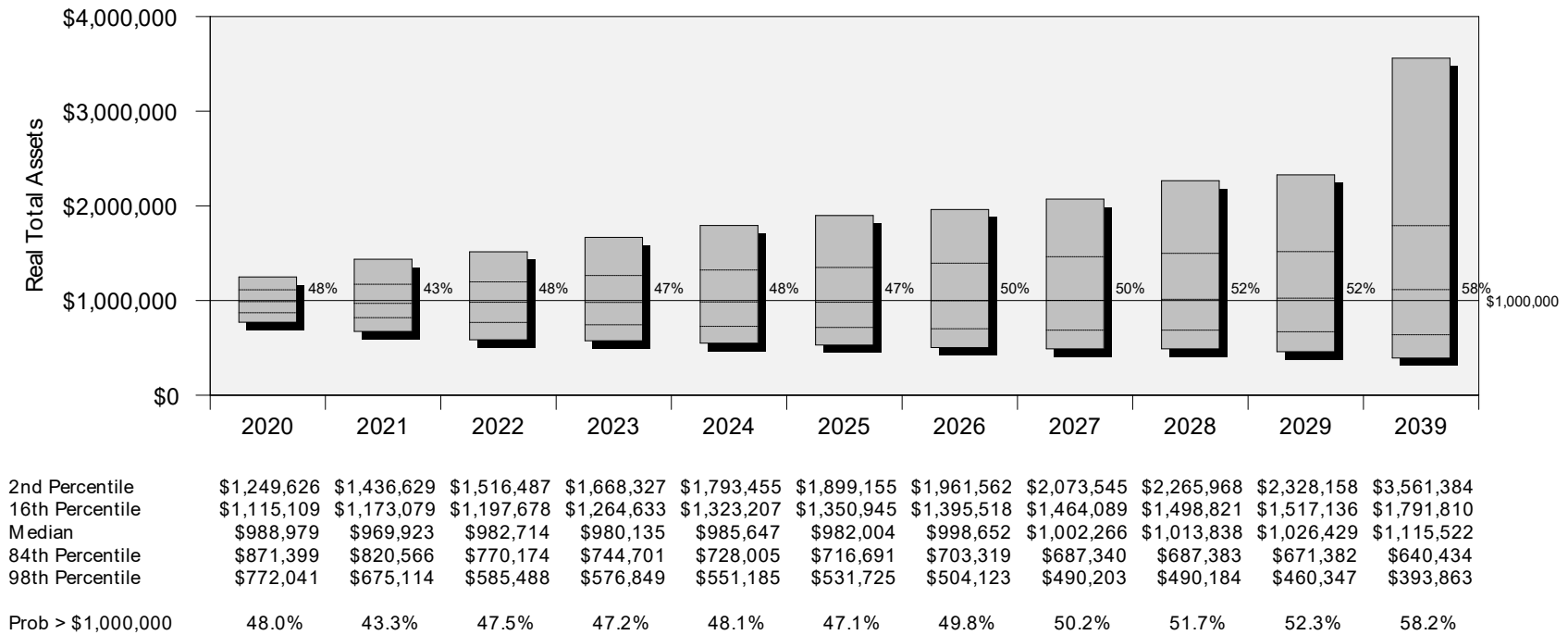


Table 14/15/21: 25% Fixed Income

INTERNET ERA: 10% SPEND FIRST THREE YEARS, 5% THEREAFTER

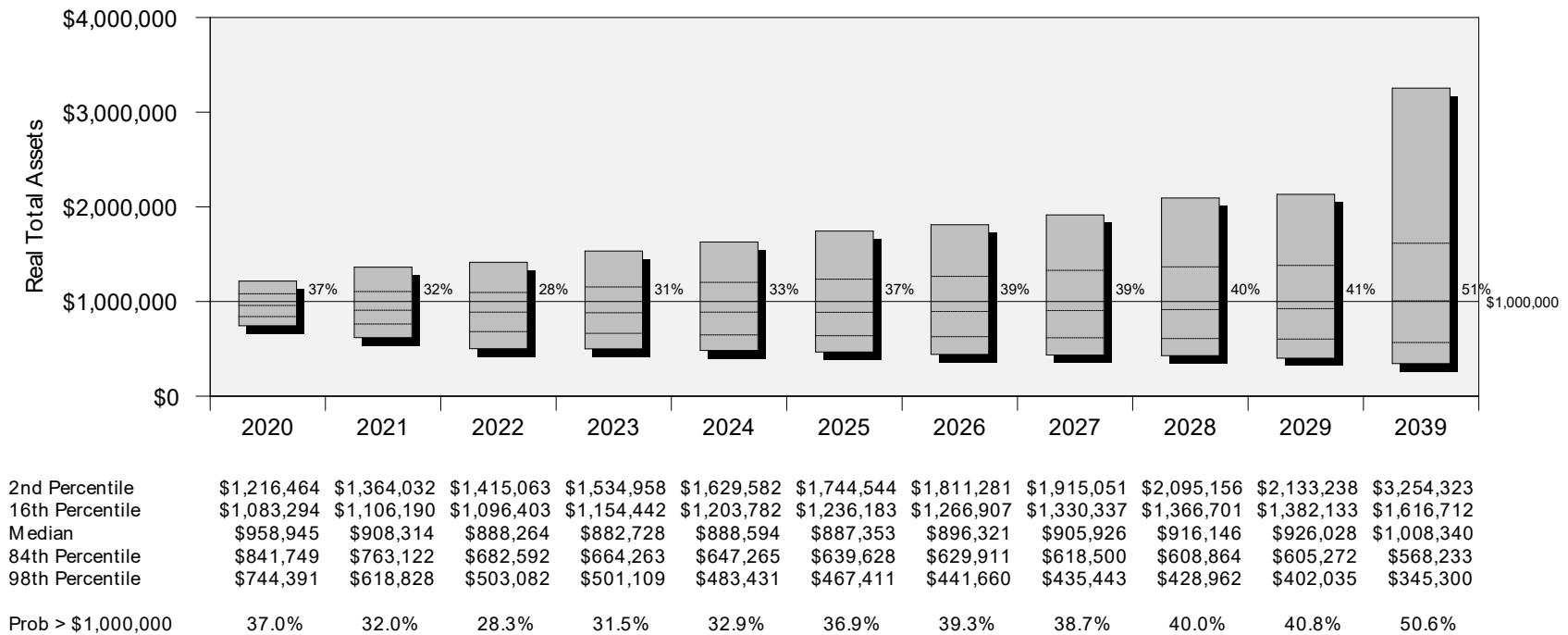
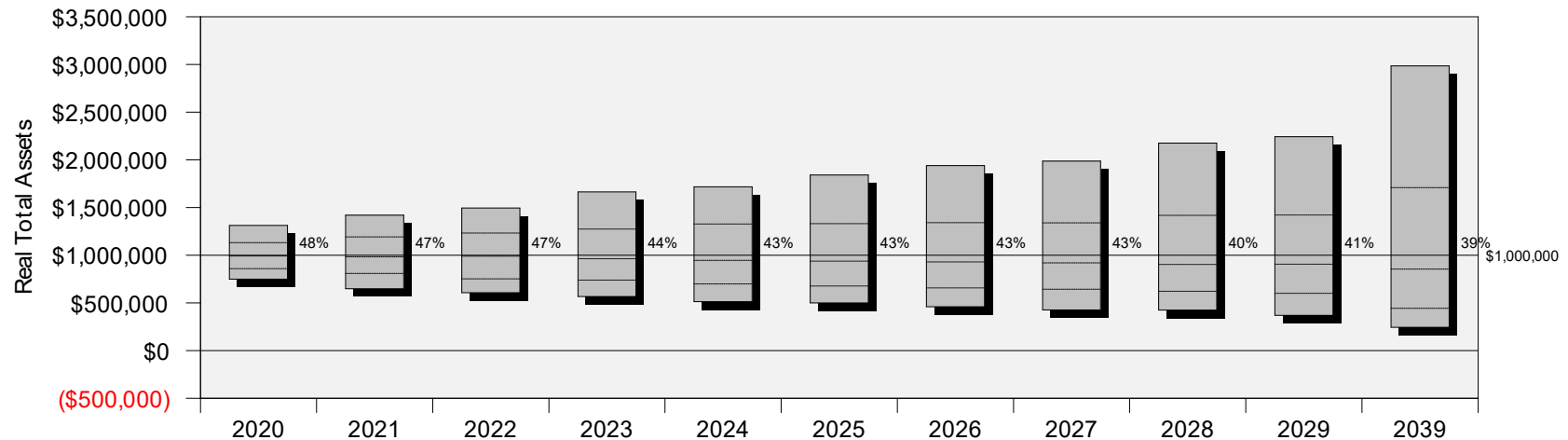


Table 18/21: 25% Fixed Income

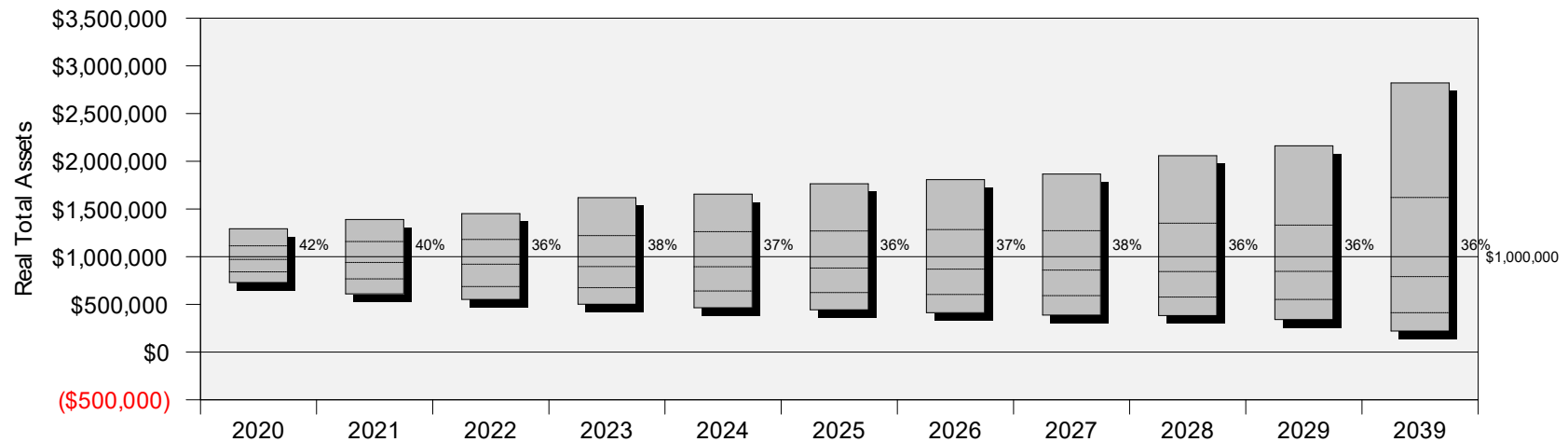
FORECAST: 5% ANNUAL SPEND



2nd Percentile	\$1,313,256	\$1,420,314	\$1,495,598	\$1,664,669	\$1,718,011	\$1,841,668	\$1,940,313	\$1,987,271	\$2,176,549	\$2,244,007	\$2,985,282
16th Percentile	\$1,133,711	\$1,192,530	\$1,233,722	\$1,274,304	\$1,328,110	\$1,331,846	\$1,342,534	\$1,340,617	\$1,418,285	\$1,421,426	\$1,709,650
Median	\$992,077	\$984,340	\$990,712	\$964,048	\$947,372	\$939,785	\$930,677	\$919,798	\$904,184	\$908,020	\$855,270
84th Percentile	\$860,934	\$809,527	\$753,384	\$740,160	\$699,189	\$677,393	\$657,558	\$644,406	\$622,511	\$601,326	\$444,792
98th Percentile	\$750,578	\$649,245	\$607,218	\$568,158	\$514,056	\$500,240	\$460,625	\$426,724	\$425,478	\$369,728	\$245,799
Prob > \$1,000,000	48.1%	47.5%	47.3%	43.9%	42.9%	43.3%	43.0%	43.1%	39.9%	41.5%	39.4%

Table 18/21: 25% Fixed Income

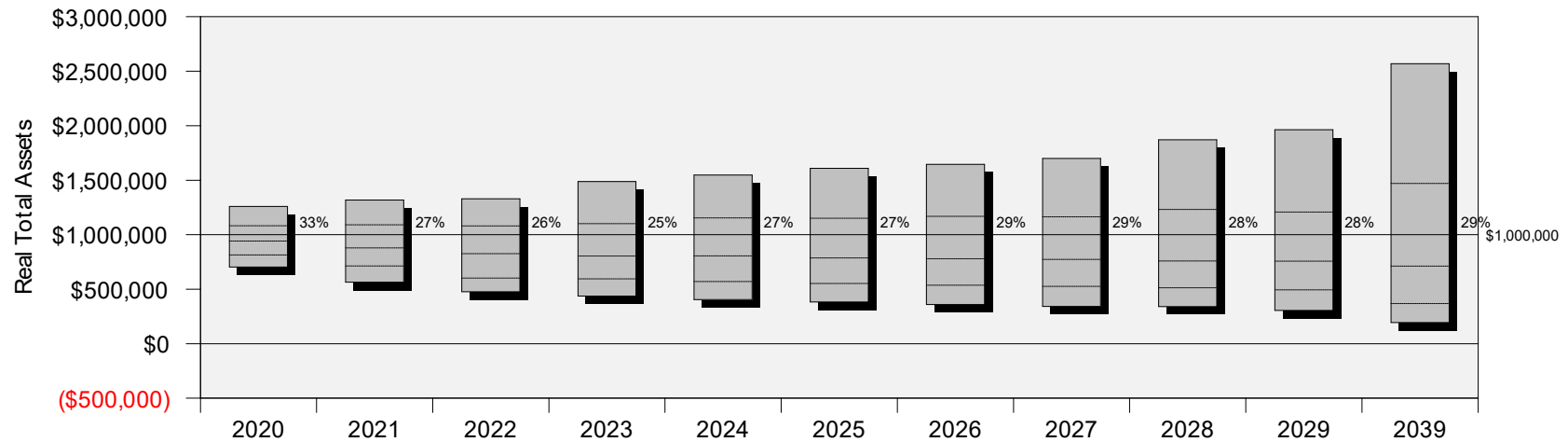
FORECAST: 7% SPEND FIRST THREE YEARS, 5% THEREAFTER



2nd Percentile	\$1,293,680	\$1,390,432	\$1,451,891	\$1,620,279	\$1,655,994	\$1,764,603	\$1,807,851	\$1,866,514	\$2,058,960	\$2,162,518	\$2,821,903
16th Percentile	\$1,114,724	\$1,160,173	\$1,181,949	\$1,221,771	\$1,263,493	\$1,269,718	\$1,284,310	\$1,273,865	\$1,352,533	\$1,332,595	\$1,621,789
Median	\$971,637	\$941,373	\$922,587	\$896,777	\$894,768	\$882,351	\$870,917	\$860,006	\$845,463	\$846,454	\$792,437
84th Percentile	\$841,992	\$768,363	\$688,408	\$677,042	\$641,068	\$624,860	\$605,326	\$593,052	\$577,429	\$551,899	\$413,415
98th Percentile	\$730,438	\$611,523	\$552,289	\$502,961	\$465,160	\$443,336	\$413,521	\$388,434	\$384,479	\$342,573	\$222,282
Prob > \$1,000,000	42.5%	40.1%	36.0%	38.0%	36.6%	36.3%	37.1%	37.7%	35.9%	35.6%	35.7%

Table 18/21: 25% Fixed Income

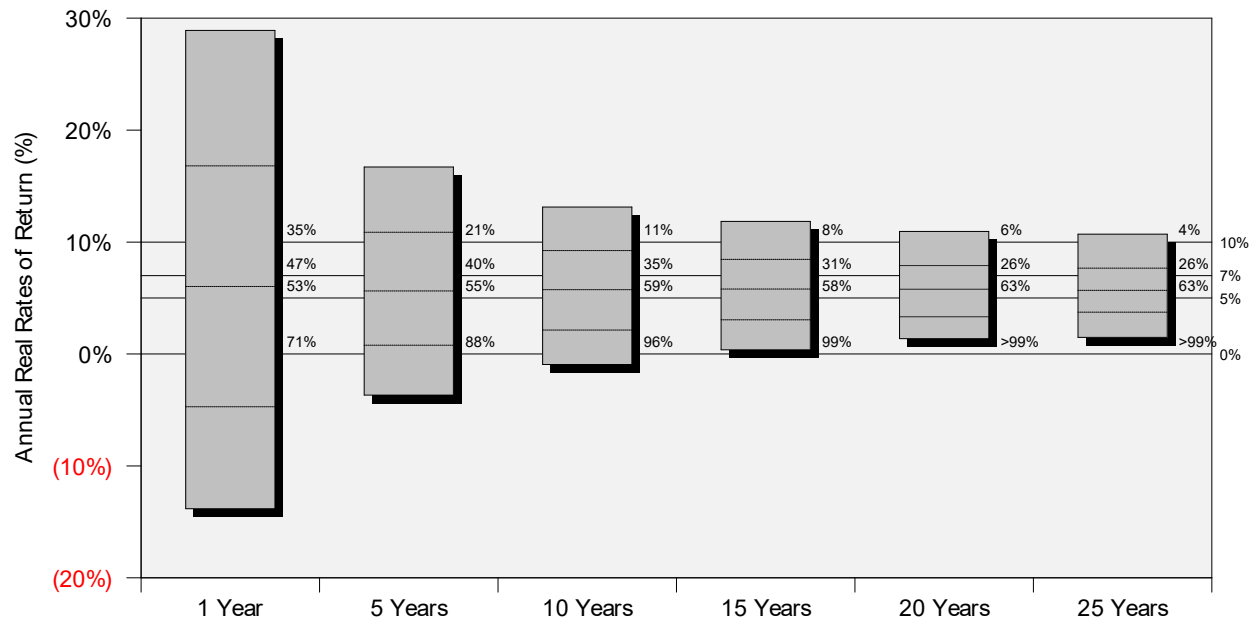
FORECAST: 10% SPEND FIRST THREE YEARS, 5% THEREAFTER



2nd Percentile	\$1,259,638	\$1,317,924	\$1,330,336	\$1,488,427	\$1,548,140	\$1,608,780	\$1,645,373	\$1,699,802	\$1,871,507	\$1,962,982	\$2,569,010
16th Percentile	\$1,082,938	\$1,090,693	\$1,081,145	\$1,101,941	\$1,154,755	\$1,151,232	\$1,168,528	\$1,163,963	\$1,232,258	\$1,207,989	\$1,470,514
Median	\$941,493	\$878,645	\$826,032	\$804,190	\$805,815	\$787,586	\$779,938	\$774,149	\$759,030	\$758,042	\$711,900
84th Percentile	\$814,297	\$714,118	\$602,913	\$595,259	\$569,833	\$552,120	\$537,065	\$525,887	\$513,187	\$494,257	\$368,184
98th Percentile	\$703,412	\$564,407	\$476,572	\$437,738	\$405,150	\$383,174	\$359,617	\$342,190	\$341,262	\$305,484	\$194,652
Prob > \$1,000,000	33.1%	26.8%	26.1%	25.2%	26.9%	26.8%	28.6%	28.7%	28.4%	28.2%	29.3%

Table 17: 35% Fixed Income

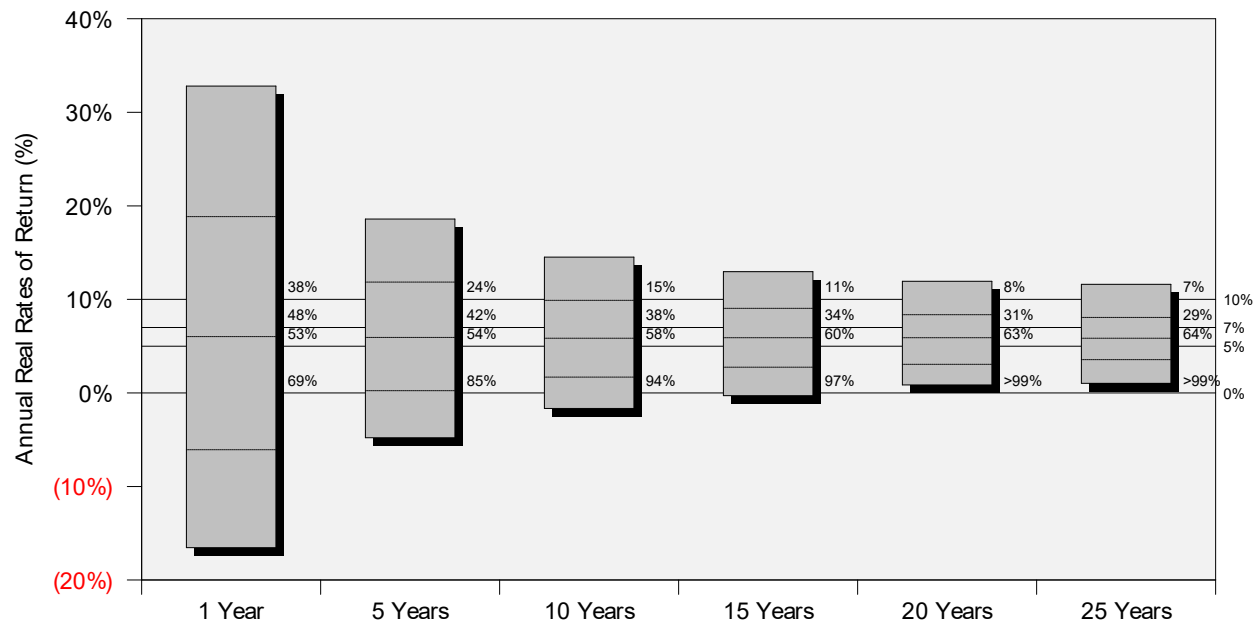
INTERNET ERA: PROBABILITY OF ACHIEVING VARIOUS ANNUALIZED RETURNS



2nd Percentile	28.9%	16.7%	13.1%	11.8%	11.0%	10.7%
16th Percentile	16.8%	10.9%	9.2%	8.5%	7.9%	7.7%
Median	6.0%	5.6%	5.8%	5.8%	5.8%	5.7%
84th Percentile	(4.7%)	0.8%	2.1%	3.1%	3.3%	3.7%
98th Percentile	(13.8%)	(3.7%)	(0.9%)	0.4%	1.4%	1.5%
Prob > 10%	35%	21%	11%	8%	6%	4%
Prob > 7%	47%	40%	35%	31%	26%	26%
Prob > 6%	50%	47%	46%	46%	44%	44%
Prob > 5%	53%	55%	59%	58%	63%	63%
Prob > 4%	56%	61%	70%	72%	76%	79%
Prob > 3%	59%	69%	79%	85%	87%	90%
Prob > 0%	71%	88%	96%	99%	>99%	>99%

Table 17: 25% Fixed Income

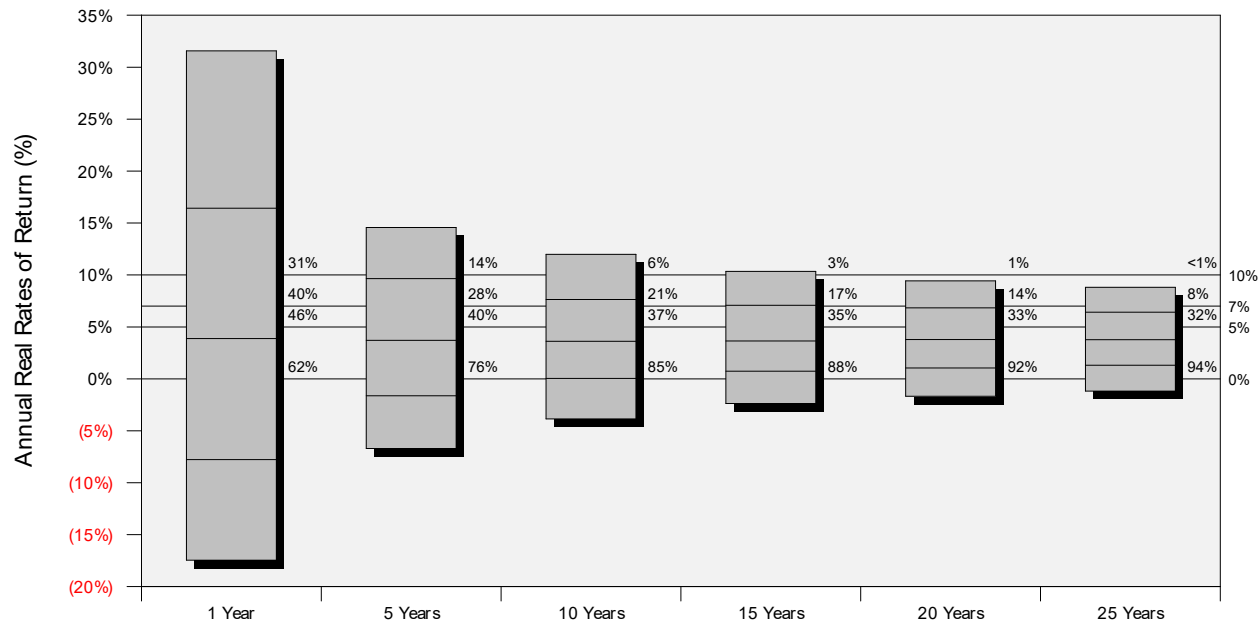
INTERNET ERA: PROBABILITY OF ACHIEVING VARIOUS ANNUALIZED RETURNS



2nd Percentile	32.8%	18.6%	14.5%	13.0%	11.9%	11.6%
16th Percentile	18.8%	11.9%	9.9%	9.1%	8.4%	8.1%
Median	6.0%	5.9%	5.9%	5.9%	5.9%	5.8%
84th Percentile	(6.1%)	0.2%	1.7%	2.8%	3.1%	3.6%
98th Percentile	(16.5%)	(4.8%)	(1.7%)	(0.3%)	0.9%	1.0%
Prob > 10%	38%	24%	15%	11%	8%	7%
Prob > 7%	48%	42%	38%	34%	31%	29%
Prob > 6%	50%	49%	48%	49%	48%	47%
Prob > 5%	53%	54%	58%	60%	63%	64%
Prob > 4%	56%	60%	69%	71%	75%	78%
Prob > 3%	59%	68%	77%	82%	85%	89%
Prob > 0%	69%	85%	94%	97%	>99%	>99%

Table 17: 35% Fixed Income

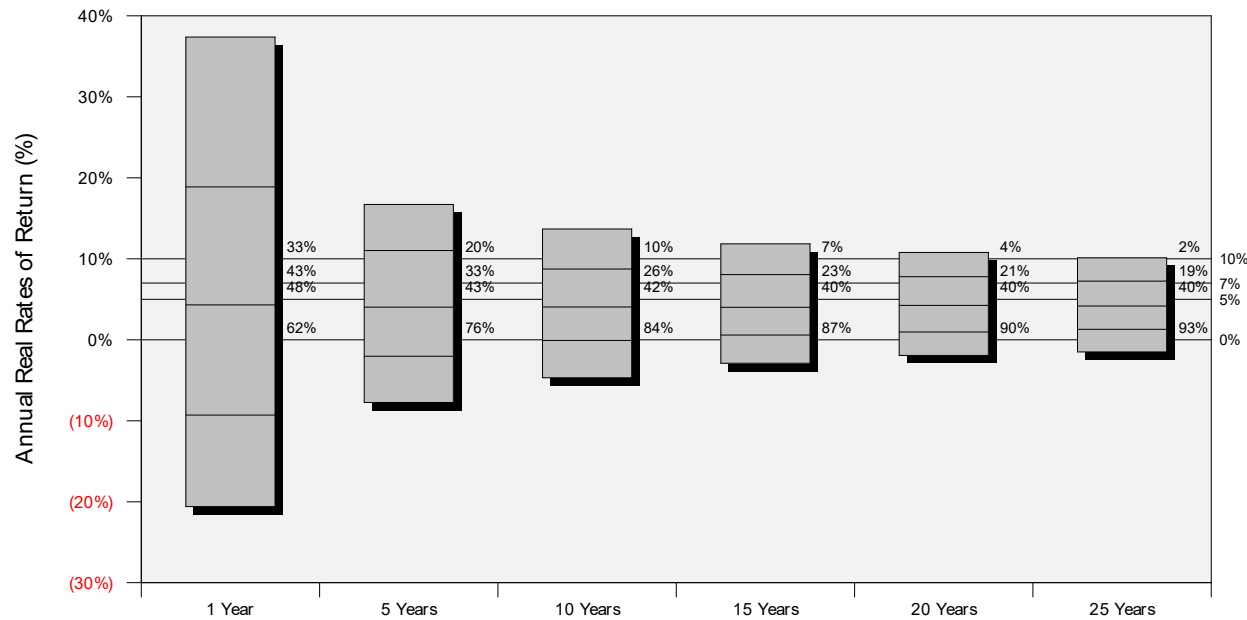
FORECAST: PROBABILITY OF ACHIEVING VARIOUS ANNUALIZED RETURNS



2nd Percentile	31.6%	14.6%	12.0%	10.3%	9.4%	8.8%
16th Percentile	16.4%	9.6%	7.6%	7.1%	6.8%	6.4%
Median	3.9%	3.7%	3.6%	3.6%	3.8%	3.8%
84th Percentile	(7.8%)	(1.6%)	0.0%	0.7%	1.0%	1.3%
98th Percentile	(17.5%)	(6.7%)	(3.8%)	(2.4%)	(1.7%)	(1.2%)
Prob > 10%	31%	14%	6%	3%	1%	<1%
Prob > 7%	40%	28%	21%	17%	14%	8%
Prob > 6%	44%	34%	28%	26%	23%	21%
Prob > 5%	46%	40%	37%	35%	33%	32%
Prob > 4%	50%	48%	47%	46%	47%	47%
Prob > 3%	53%	54%	57%	58%	59%	61%
Prob > 0%	62%	76%	85%	88%	92%	94%

Table 17: 25% Fixed Income

FORECAST: PROBABILITY OF ACHIEVING VARIOUS ANNUALIZED RETURNS



2nd Percentile	37.4%	16.7%	13.7%	11.9%	10.8%	10.1%
16th Percentile	18.9%	11.0%	8.7%	8.0%	7.8%	7.3%
Median	4.3%	4.0%	4.1%	4.0%	4.2%	4.2%
84th Percentile	(9.3%)	(2.0%)	(0.1%)	0.6%	1.0%	1.3%
98th Percentile	(20.6%)	(7.7%)	(4.7%)	(2.9%)	(1.9%)	(1.5%)
Prob > 10%	33%	20%	10%	7%	4%	2%
Prob > 7%	43%	33%	26%	23%	21%	19%
Prob > 6%	46%	38%	33%	33%	28%	27%
Prob > 5%	48%	43%	42%	40%	40%	40%
Prob > 4%	51%	50%	50%	50%	52%	52%
Prob > 3%	54%	56%	60%	60%	63%	65%
Prob > 0%	62%	76%	84%	87%	90%	93%

Table 22: 35% Fixed Income

INTERNET ERA: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS, 5% ANNUAL SPEND

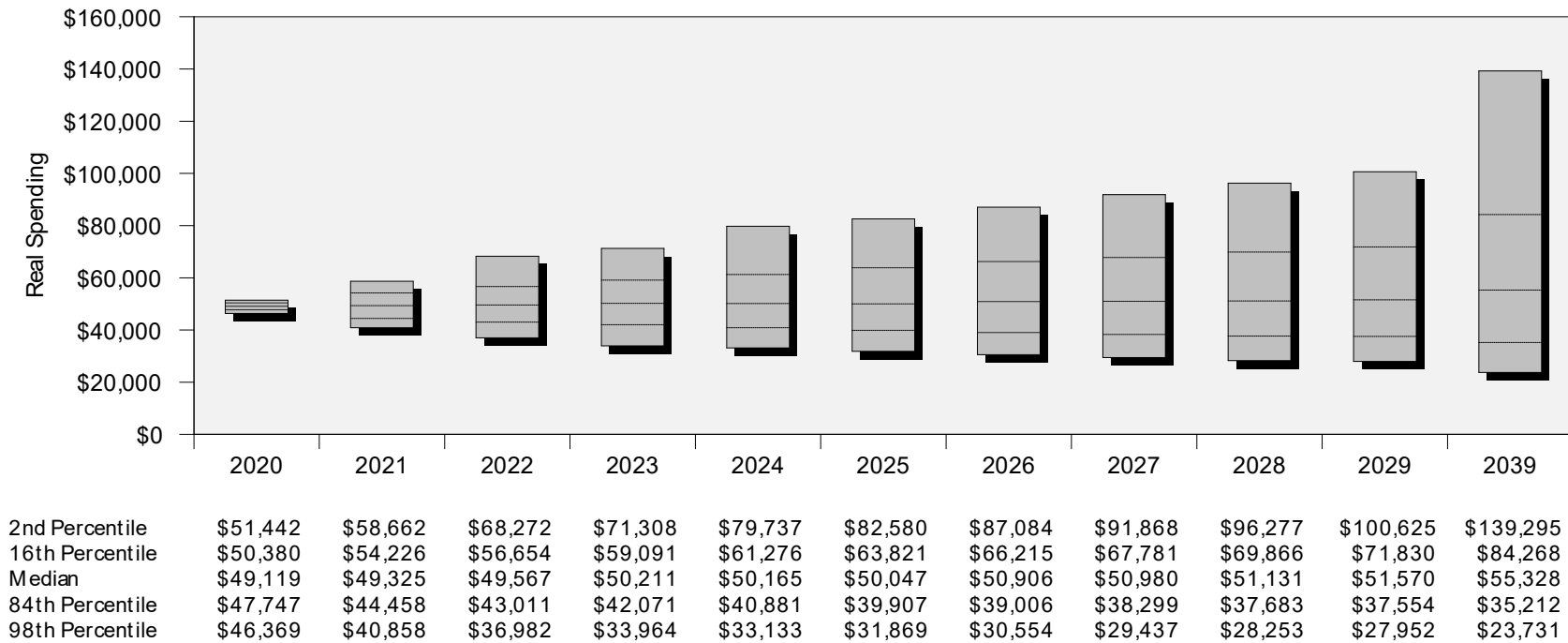


Table 22: 35% Fixed Income

INTERNET ERA: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS, 7% SPEND FIRST THREE YEARS, 5% THEREAFTER

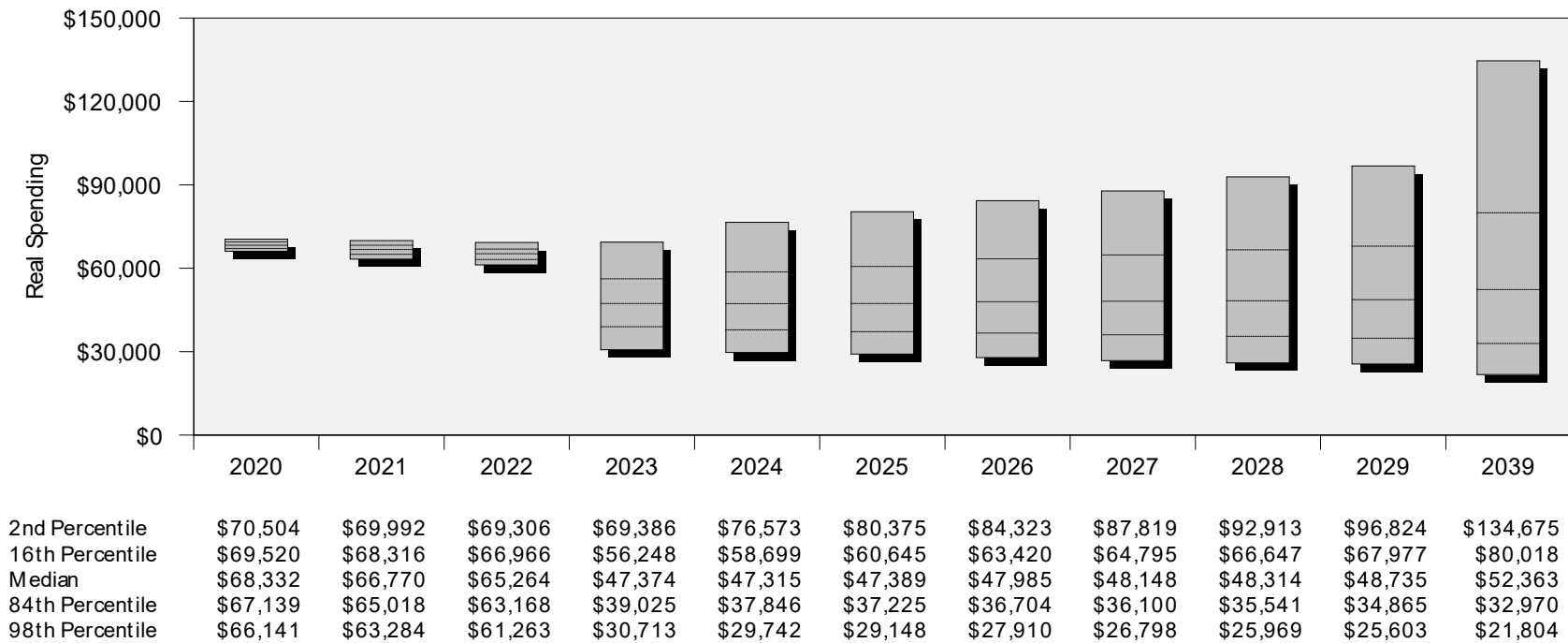


Table 22: 35% Fixed Income

INTERNET ERA: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS, 10% SPEND FIRST THREE YEARS, 5% THEREAFTER

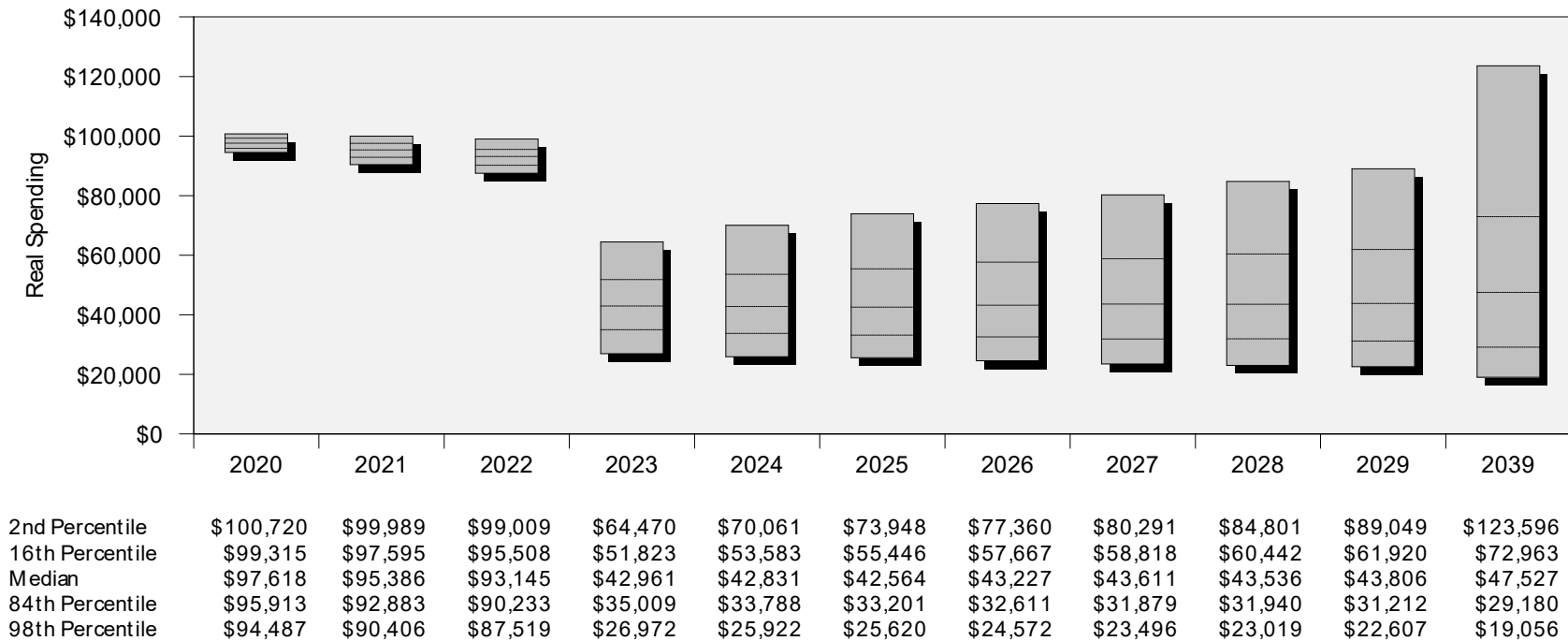


Table 22: 25% Fixed Income

INTERNET ERA: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS, 5% ANNUAL SPEND

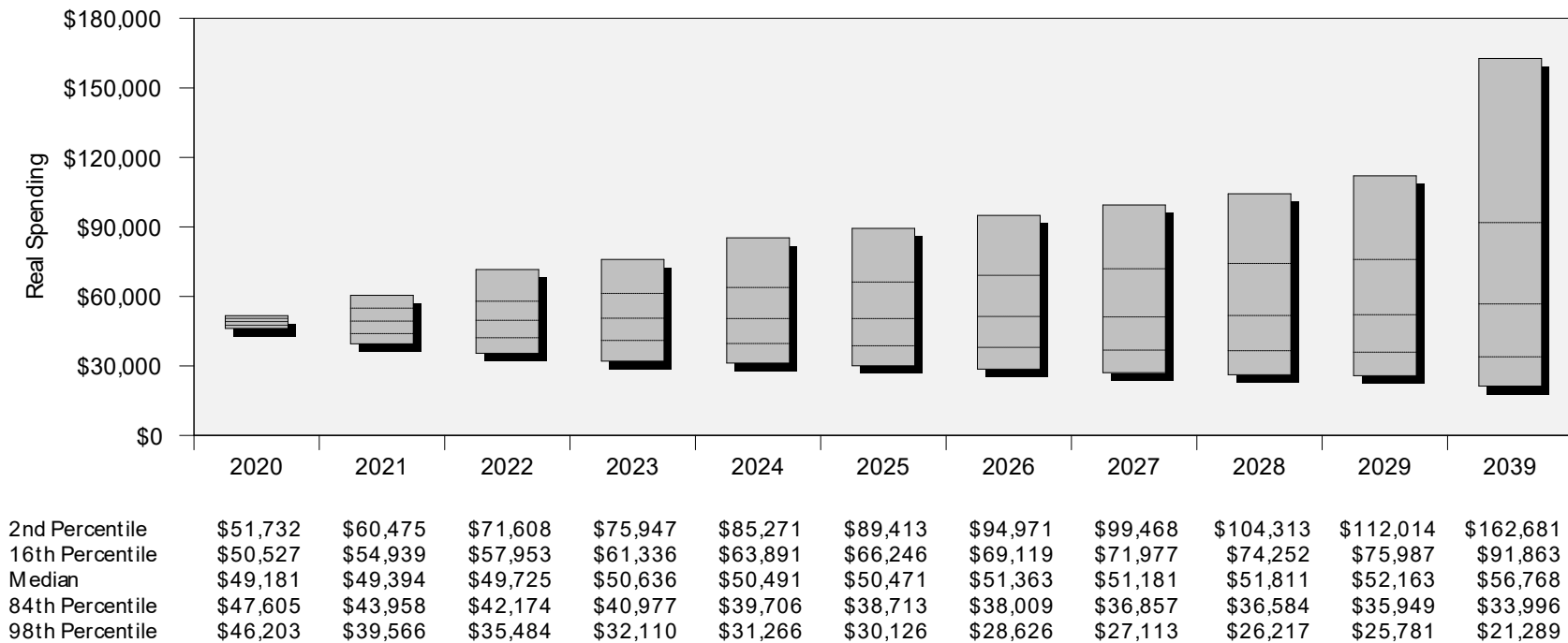


Table 22: 25% Fixed Income

INTERNET ERA: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS, 7% SPEND FIRST THREE YEARS, 5% THEREAFTER

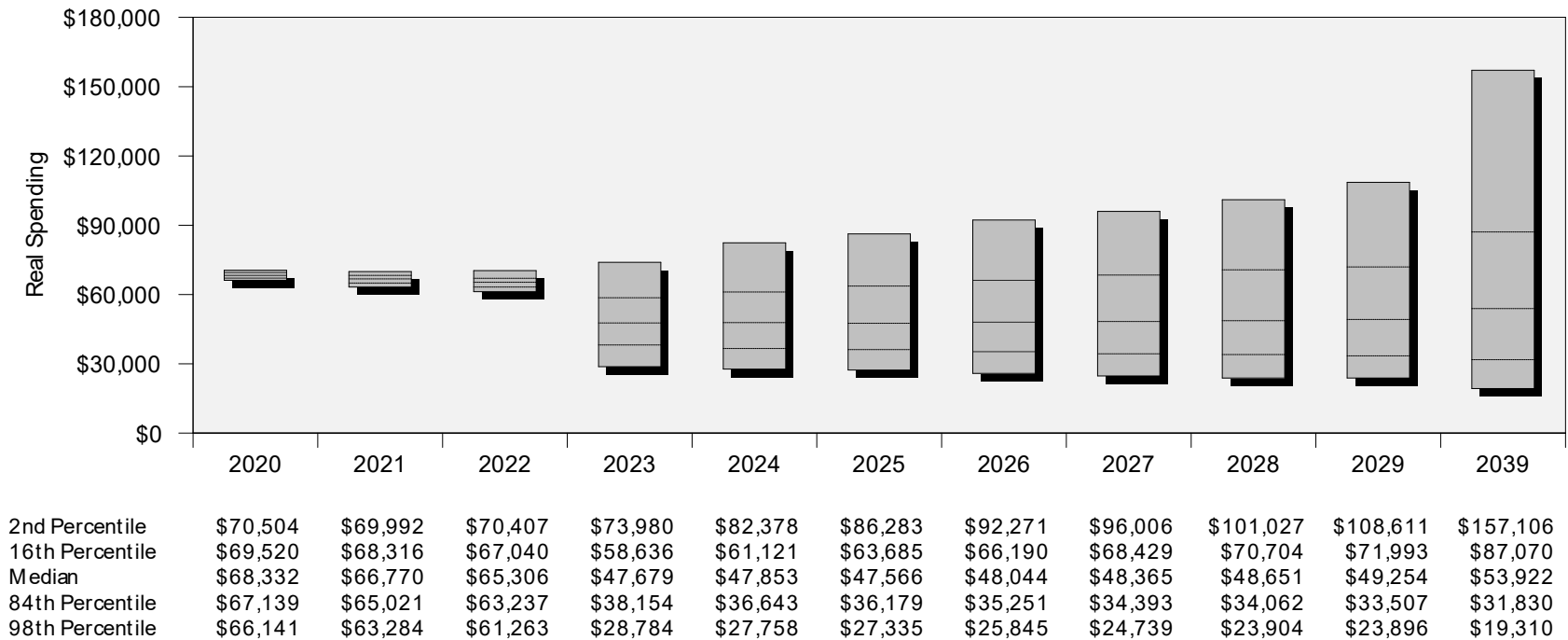


Table 22: 25% Fixed Income

INTERNET ERA: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS, 10% SPEND FIRST THREE YEARS, 5% THEREAFTER

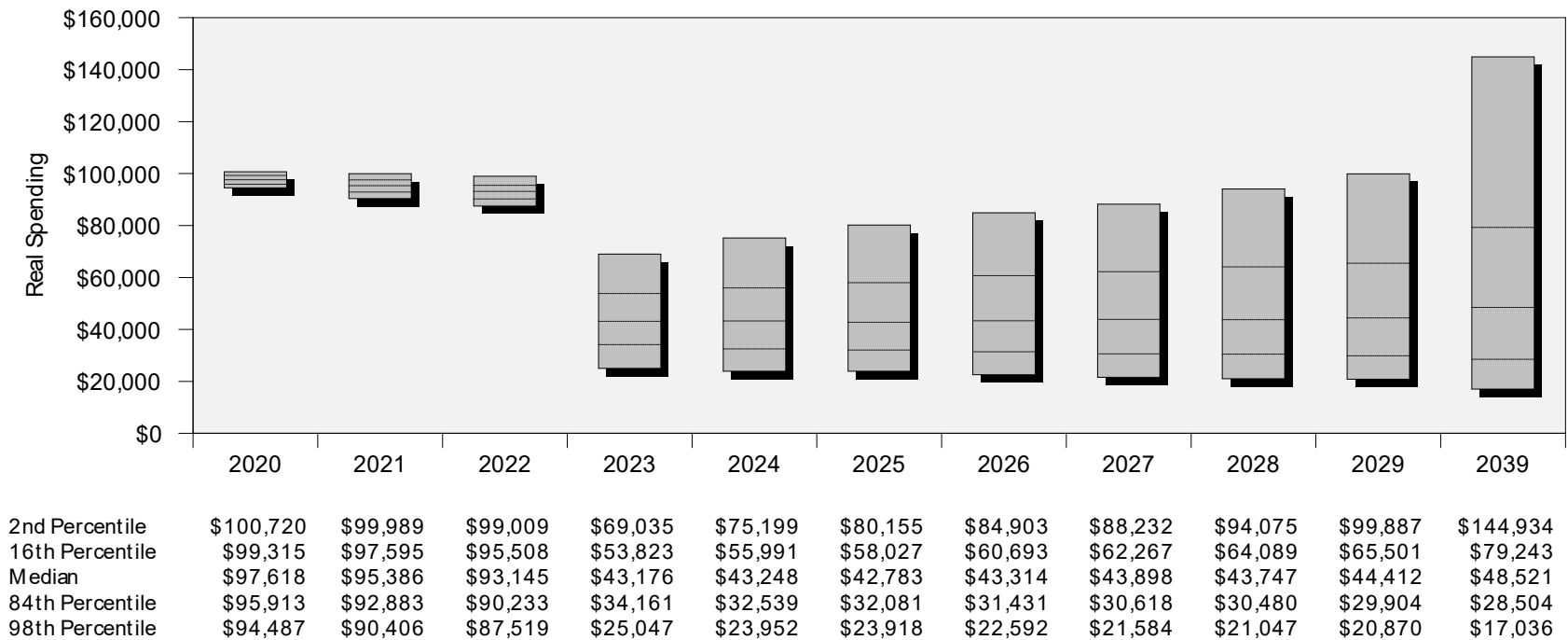


Table 22: 35% Fixed Income

**FORECAST: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS,
5% ANNUAL SPEND**

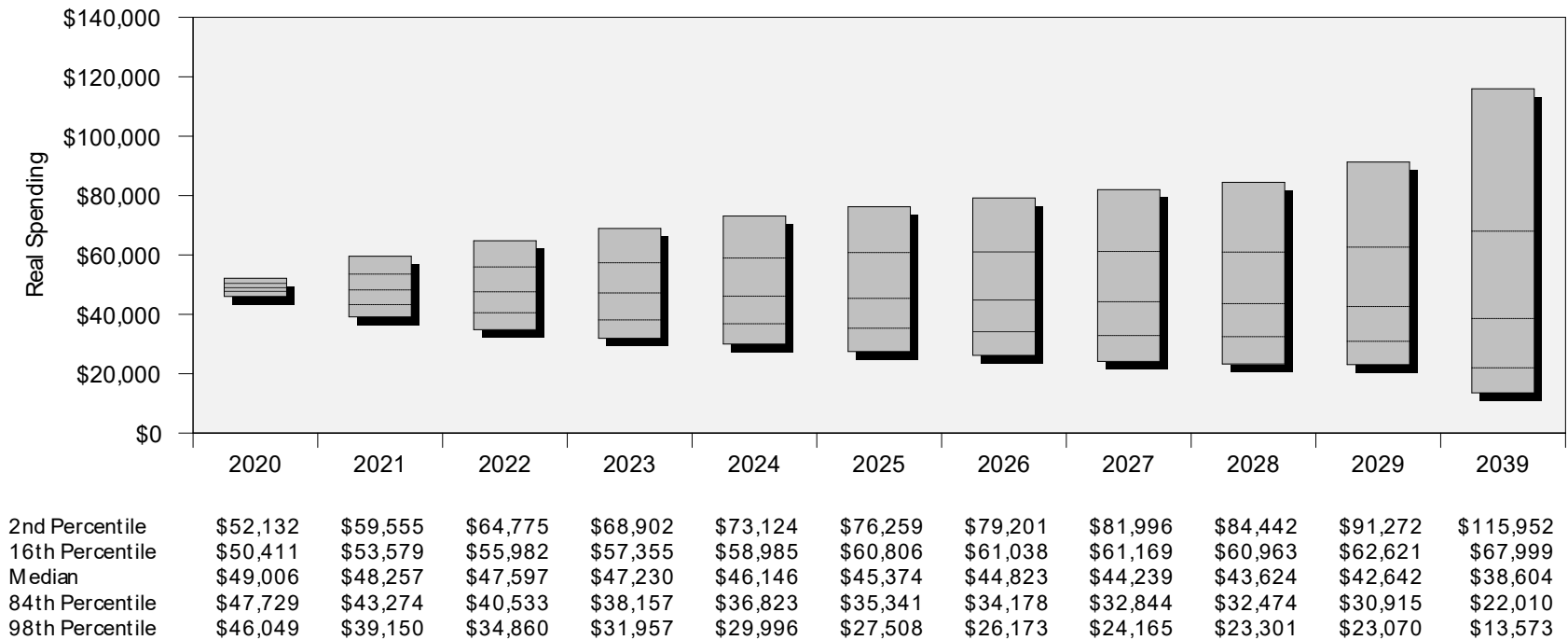


Table 22: 35% Fixed Income

**FORECAST: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS,
7% SPEND FIRST THREE YEARS, 5% THEREAFTER**

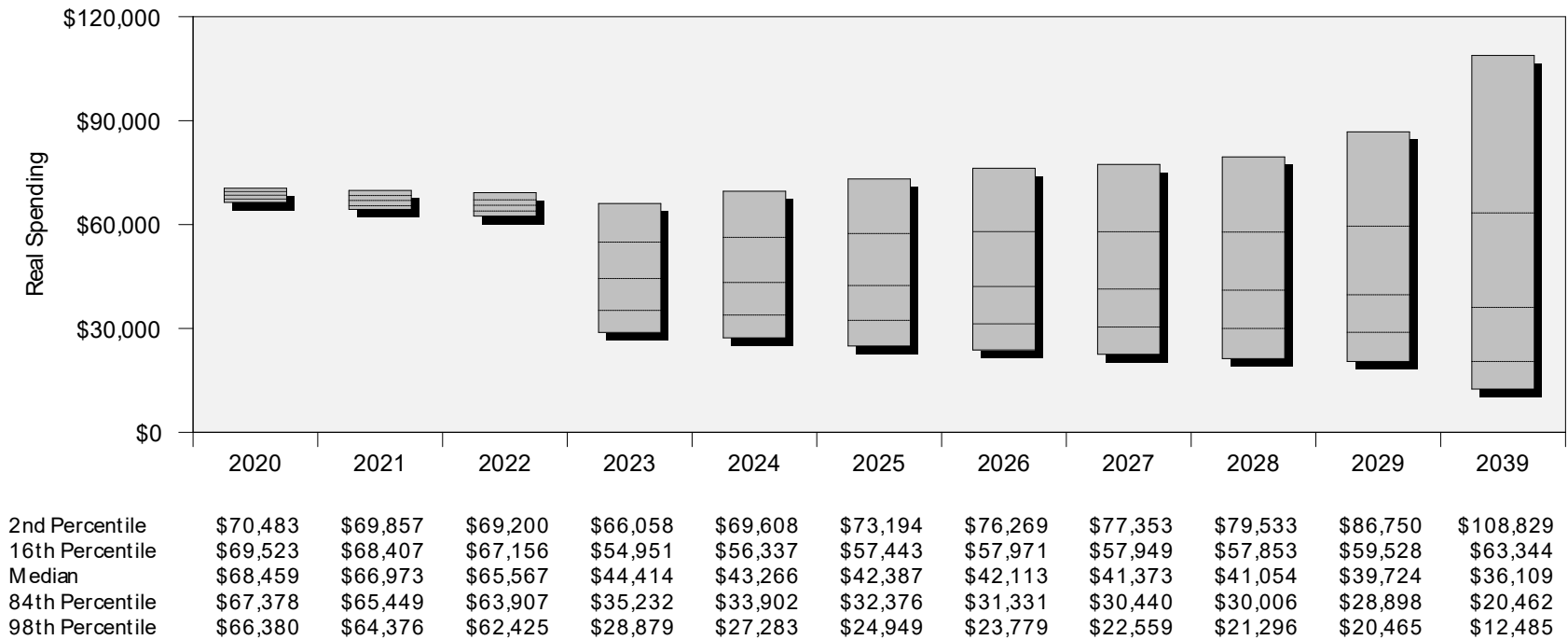


Table 22: 35% Fixed Income

**FORECAST: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS,
10% SPEND FIRST THREE YEARS, 5% THEREAFTER**

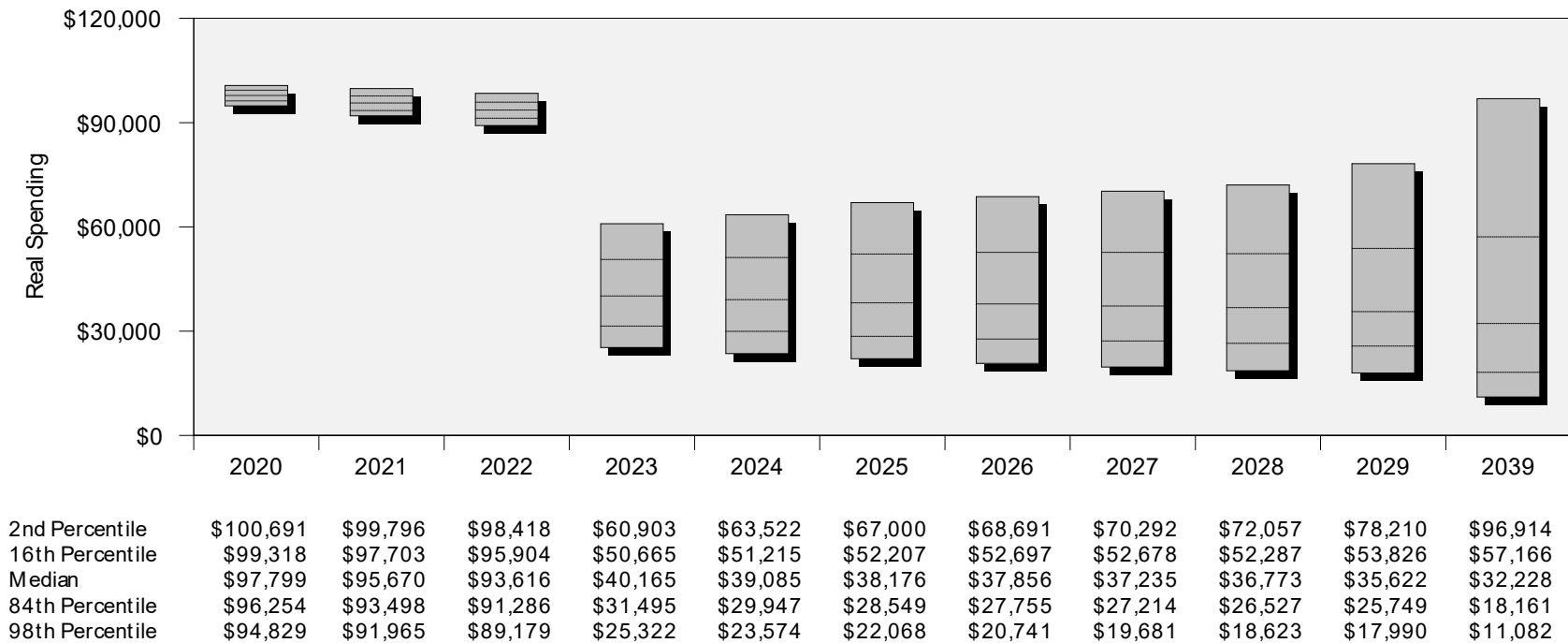


Table 22: 25% Fixed Income

**FORECAST: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS,
5% ANNUAL SPEND**

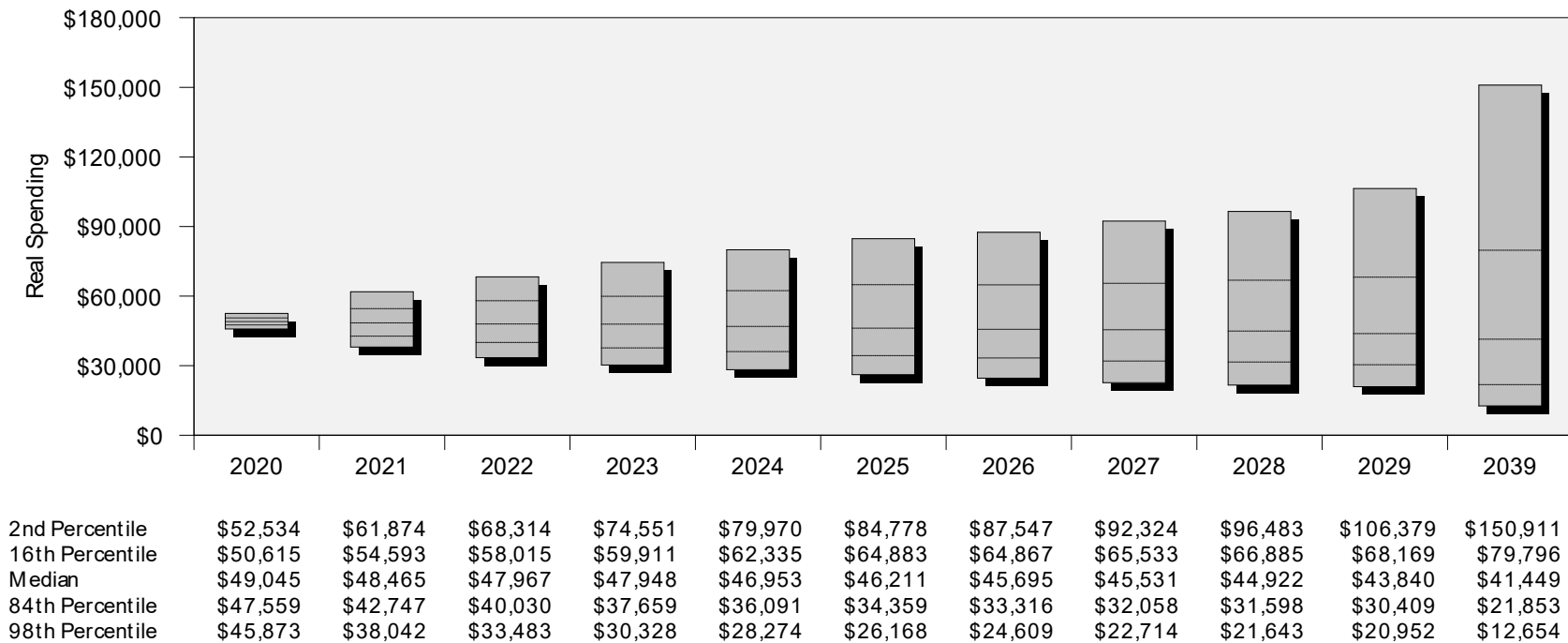


Table 22: 25% Fixed Income

**FORECAST: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS,
7% SPEND FIRST THREE YEARS, 5% THEREAFTER**

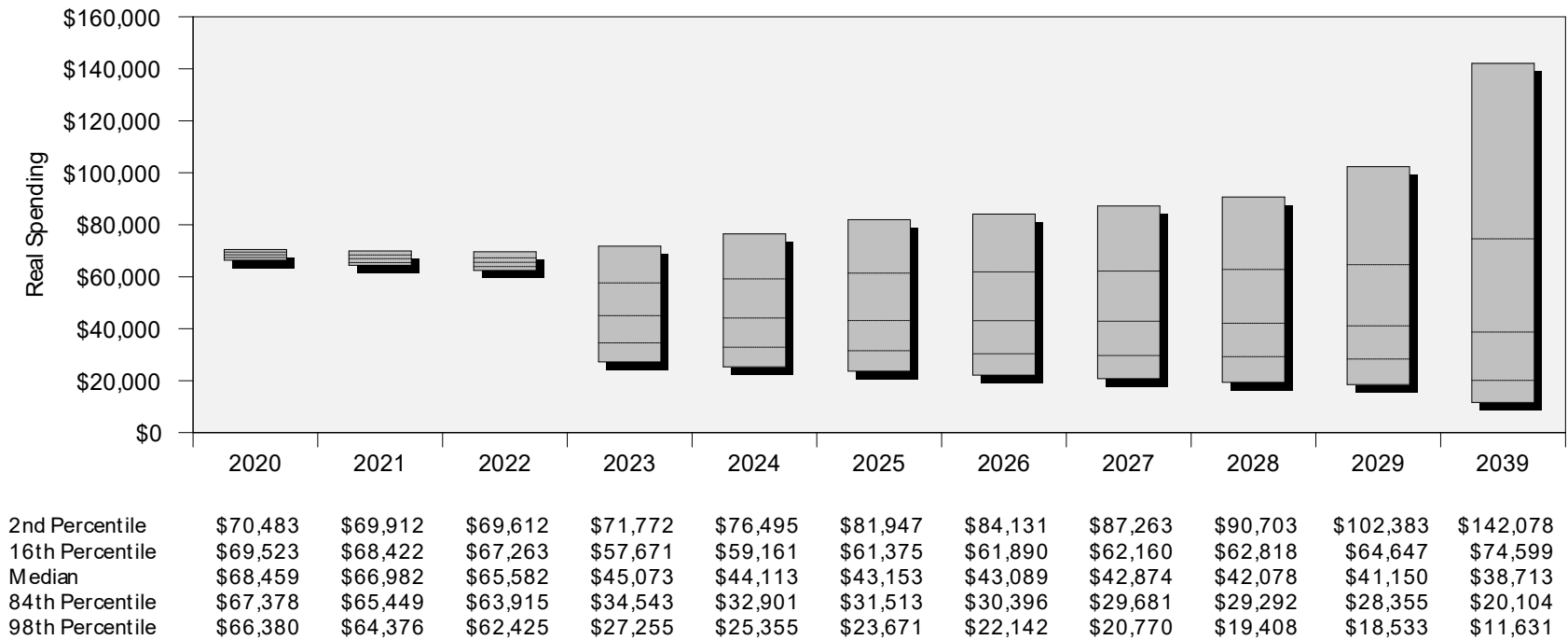
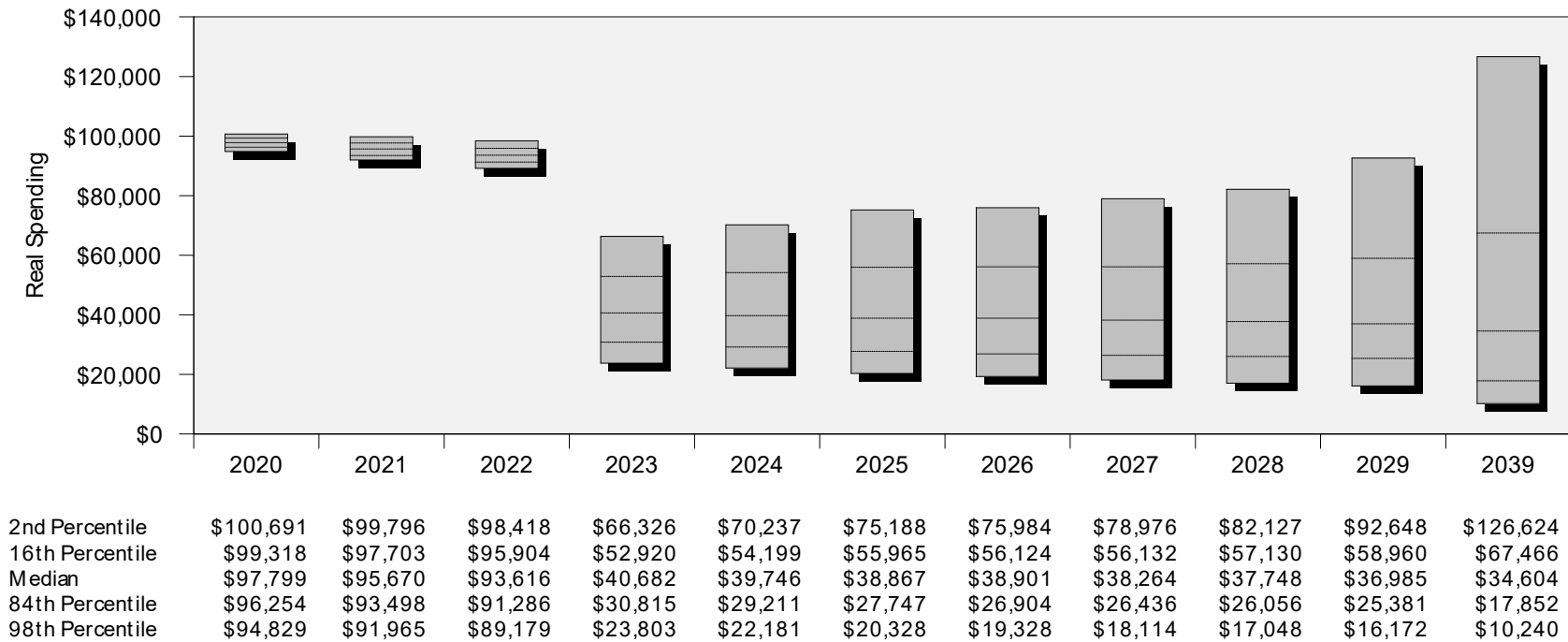


Table 22: 25% Fixed Income

**FORECAST: MEDIAN ANNUAL GRANTS, \$1 MILLION STARTING CORPUS,
10% SPEND FIRST THREE YEARS, 5% THEREAFTER**



Notes

Past performance does not guarantee future results. All investments have risk and the potential for loss as well as gains.

The “Range of Projected Rates of Return” provides an indication of the potential variability of returns throughout the asset allocation spectrum, illustrating the trade off between market risk (volatility) and return. Reviewing these ranges may help measure risk tolerance to withstand losses in a portfolio. All returns assume the portfolio is rebalanced to the stock and/or bond percentages annually.

We show optimized returns calculated by Callan Associates for the next 10-year period. The returns are computed by our optimization software and are based on a diversified portfolio using Callan Associates’ capital market projections. Callan’s analysts incorporate a variety of current economic data (such as current interest rates, stock price/earnings ratios, and stock price/cash flow ratios, etc.) with historical data to derive expected ranges of returns from diversified portfolios. This allows for the incorporation of more current information in setting expectations.

These modeled performance returns are hypothetical projections and represent the likelihood of possible investment outcomes. They do not reflect actual investment results and are not guarantees of future results. Hypothetical performance has many inherent limitations some of which are described in this disclosure. No representation is made, nor should it be inferred, that any portfolio will or is likely to achieve profits or losses similar to those shown. Returns for investments in the asset allocations shown may not fall within these projected returns. These results are projections of possible outcomes and cannot reflect the impact that material economic and market factors might have on decision making regarding management of the funds. These results assume maintaining positions during periods of severe market decline and do not take into account the ability to sustain losses. One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. Returns shown assume the reinvestment of all distributions. These projections were derived from the projection of indexes and do not represent the actual investment recommendations. All investments have risk; inherent in any investment is the potential for loss as well as gain.

The “Range of Real Total Assets” and “Range of Real Spending” charts are based on the market value and/or estimated cash flow assumptions shown. Returns shown for “Range of Real Total Assets” and “Range of Real Spending” charts are hypothetical for illustration purposes only. They are based on the asset allocation mixes shown to illustrate the range of possible outcomes. No expectation should be made or implied that such returns can be achieved.

Data sources for peer group comparisons, returns, and standard statistical data are provided by the sources referenced and are based on data obtained from recognized statistical services or other sources believed to be reliable. However, some or all information has not been verified prior to the analysis, and we do not make any representations as to its accuracy or completeness. Any analysis non-factual in nature constitutes only current opinions, which are subject to change. Benchmarks or indices are included for information purposes only to reflect the current market environment; no index is a directly tradable investment. There may be instances when consultant opinions regarding any fundamental or quantitative analysis may not agree.

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