



Two's a Crowd: Do HSA Contributions Crowd out 401(k) Contributions?

Study Overview

- This study uses data from the EBRI/ICI Participant-Directed Retirement Plan Data Collection Project and EBRI's HSA Database to examine the impact of initial health savings account (HSA) contributions on employee 401(k) contributions.
- Data from 45,132 employees, 19 and older, with both a 401(k) and an HSA are examined.
- Key outcomes include:
 - Probability of reducing employee 401(k) contributions in the first year that the employee began making HSA contributions.
 - Change in employee contributions to 401(k) plan the year that HSA contributions begin.
 - Rate of crowding out between 401(k) employee contributions and HSA employee contributions as a function of various factors.

Sample Construction and Key Variable Definitions

Sample:

- 401(k) participants who:
 - Could be followed over a two-year study period.
 - Made their first HSA contribution in the second year of the two-year study period (see appendix).
- Change in employee 401(k) contributions:
 - Defined as Year 2 employee 401(k) contribution minus Year 1 employee 401(k) contribution adjusted for salary growth.
- Rate of crowding out between employee 401(k) contributions and employee HSA contributions:
 - Defined as the change in employee 401(k) contributions between Year 1 and Year 2 divided by the amount of employee HSA contributions in Year 2.

Key Findings

The results show evidence of a crowding out.

- Overall, 56 percent of 401(k) participants reduced their contributions in the first year that they made HSA contributions.
- In general, as income increased, the percentage of participants reducing their contributions to their 401(k) increased in the first year that they made HSA contributions. We also saw a spike in the percentage making a reduction among low-income workers, however.
- As either the dollar amount of 401(k) contributions or the percentage of pay contributed increased, the percentage of 401(k) participants reducing their contributions in the first year that they made HSA contributions increased.
- As participant HSA contribution levels increased, the percentage of 401(k) participants reducing their contributions in the first year that they made HSA contributions increased.
- The generosity of employer HSA contributions affects employee 401(k) contributions: Those with a higher ratio of employer to employee HSA contributions were more likely to reduce their 401(k) contributions.

Key Findings

The degree of crowding out ranges but is modest at the median.

- The median dollar reduction in participant 401(k) contributions in the first year that they made HSA contributions was \$34.
 - The change ranged from a \$5,127 *decrease* at the 10th percentile to a \$1,143 *increase* in 401(k) contributions at the 90th percentile.
- The median percentage reduction in participant 401(k) contributions in the first year that they made HSA contributions was 1 percent.
 - The change ranged from a 92 percent *decrease* at the 10th percentile to a 32 percent *increase* in 401(k) contributions at the 90th percentile.

Key Findings

Crowding out was largest at higher contribution levels.

- Higher HSA contributions were associated with lower 401(k) contributions.
 - At the median, 401(k) contributions fell \$315 among HSA participants contributing more than \$4,350.
 - Among HSA participants contributing \$1,000 or less, median 401(k) contributions fell only \$8.
- Those contributing the most to their 401(k) experienced the largest 401(k) contribution declines at the median in the first year of HSA contributions.
 - 401(k) contributions fell \$540 in Year 2 among those contributing \$8,501 or more in Year 1.
 - At the median, 401(k) contributions were essentially unaffected among participants contributing \$8,500 or less to the 401(k) in Year 1.
- A higher 401(k) contribution rate in Year 1 was also associated with lower 401(k) contributions at the median in Year 2 among those who contributed to their HSA for the first time in Year 2.
 - 401(k) contributions fell \$482 in Year 2 among those contributing more than 10 percent of their income in Year 1.
 - They fell \$49 among those contributing 6–10 percent of their income in Year 1.
 - At the median, 401(k) contributions were essentially unaffected among participants contributing 6 percent or less of their income in Year 1.

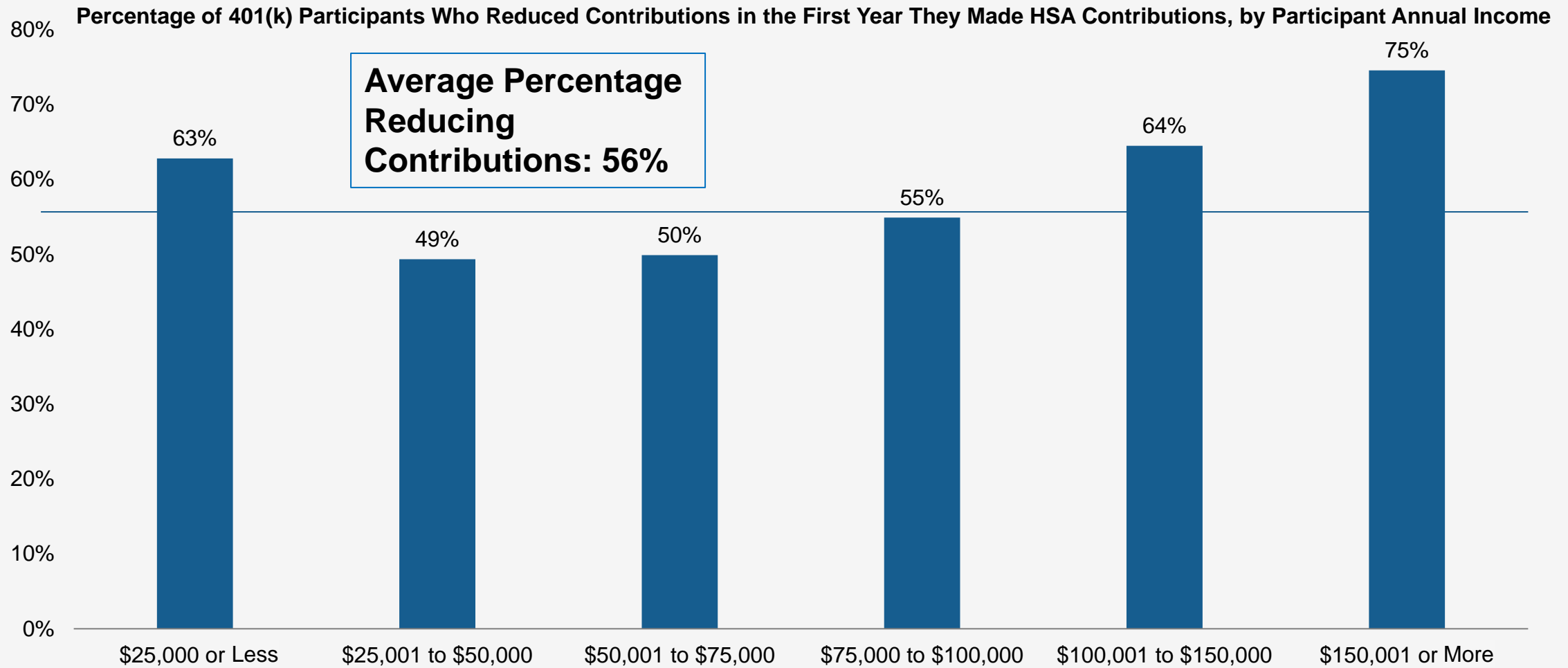
Key Findings

The bigger the 401(k) contribution, the greater the impact of HSA contributions.

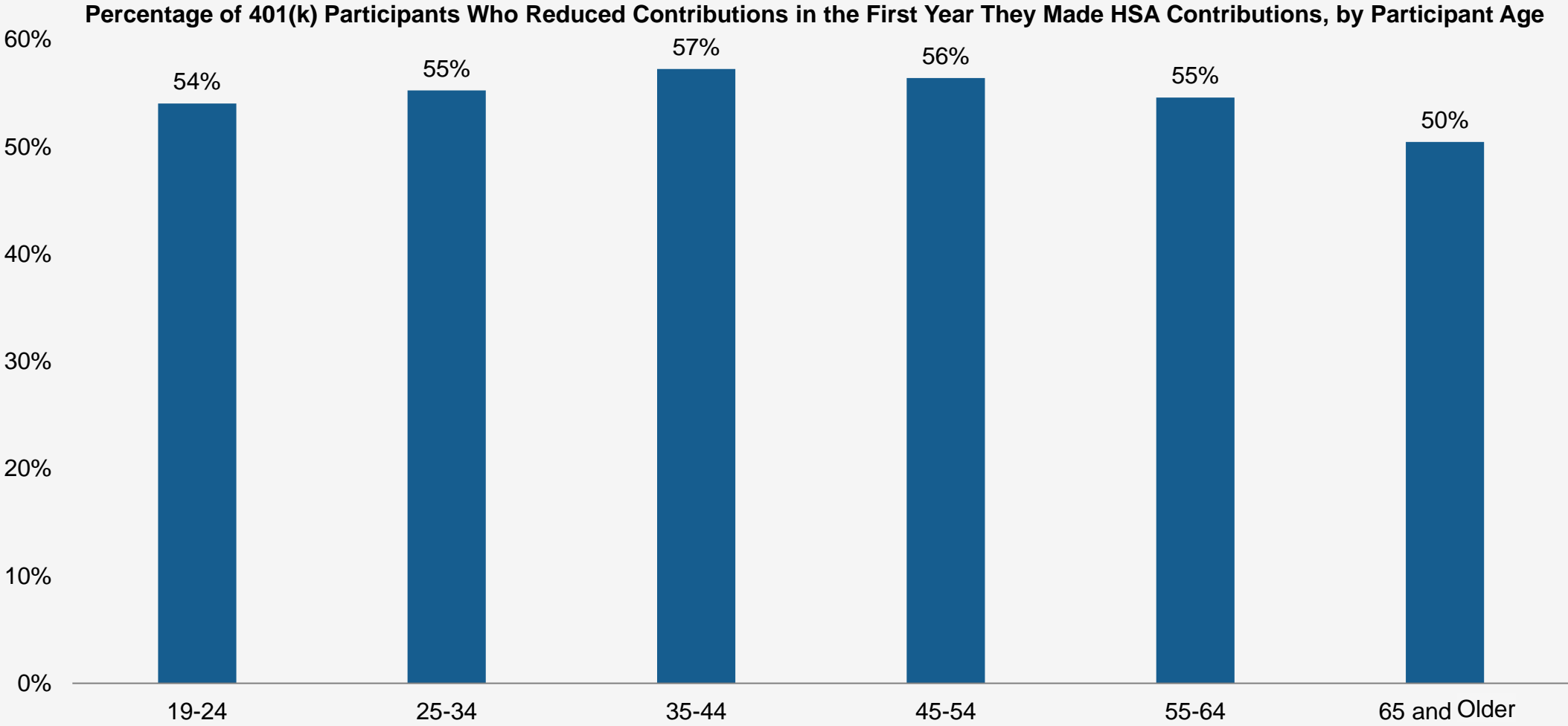
- There were small reductions in 401(k) contributions at the median when HSA contributions were made for the first time in Year 2.
 - Reductions in 401(k) contributions ranged from 2 percent for those contributing less than \$1,000 to their HSA, to 5 percent for those contributing more than \$4,350 to their HSA.
- Those contributing the most to their 401(k) experienced the largest 401(k) declines at the median in the first year of HSA contributions.
 - 401(k) contributions fell 19 percent in Year 2 among those contributing \$8,501 or more in Year 1.
 - At the median, 401(k) contributions were unaffected among participants contributing \$8,500 or less to the 401(k) in Year 1.
- A higher 401(k) contribution rate in Year 1 was also associated with lower 401(k) contributions at the median in Year 2 among those who contributed to their HSA for the first time in Year 2.
 - 401(k) contributions fell 21 percent in Year 2 among those contributing more than 10 percent of their income in Year 1.
 - At the median, 401(k) contributions were unaffected among participants contributing 10 percent or less of their income to the 401(k) in Year 1.

PROBABILITY OF EMPLOYEES REDUCING 401(K) CONTRIBUTIONS IN THE FIRST YEAR OF CONTRIBUTING TO AN HSA

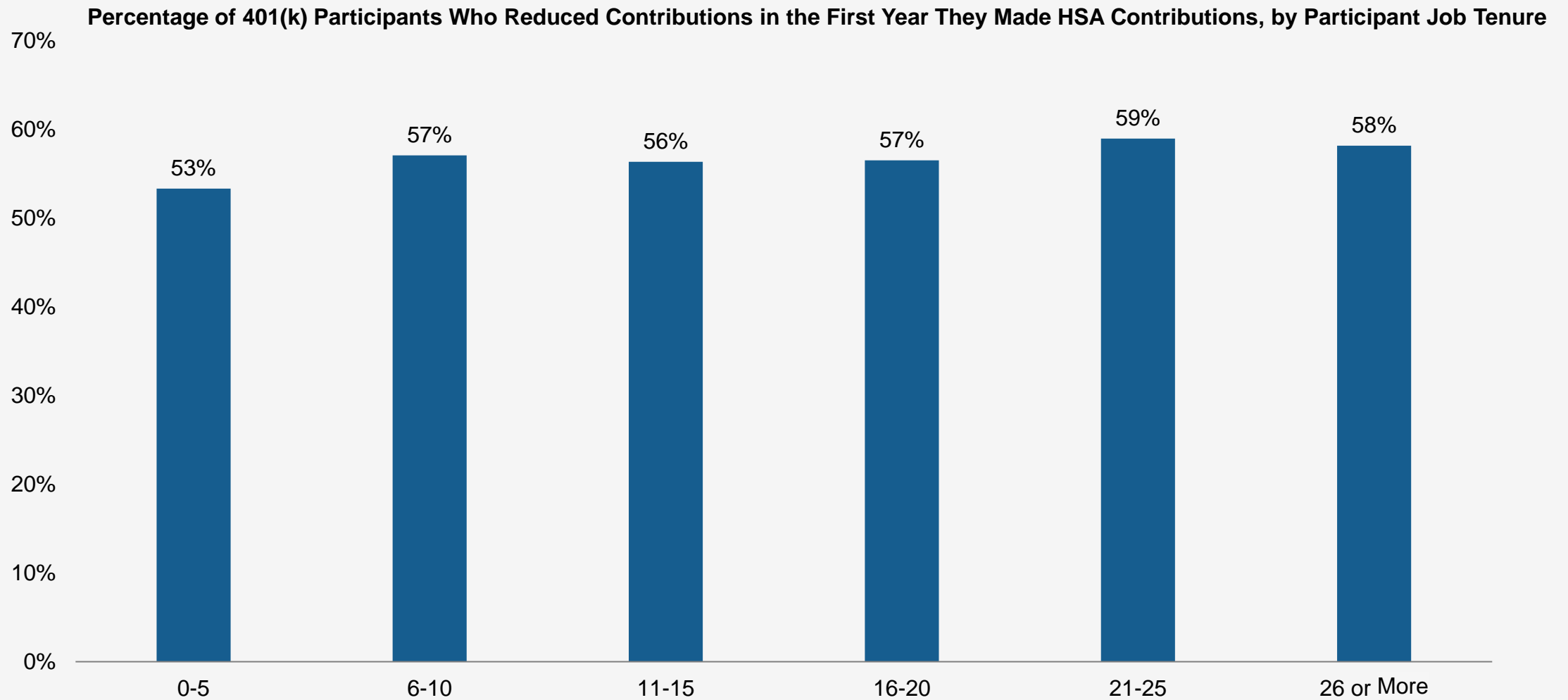
Lower- and Higher-Income Workers Most Likely to Reduce 401(k) Contributions



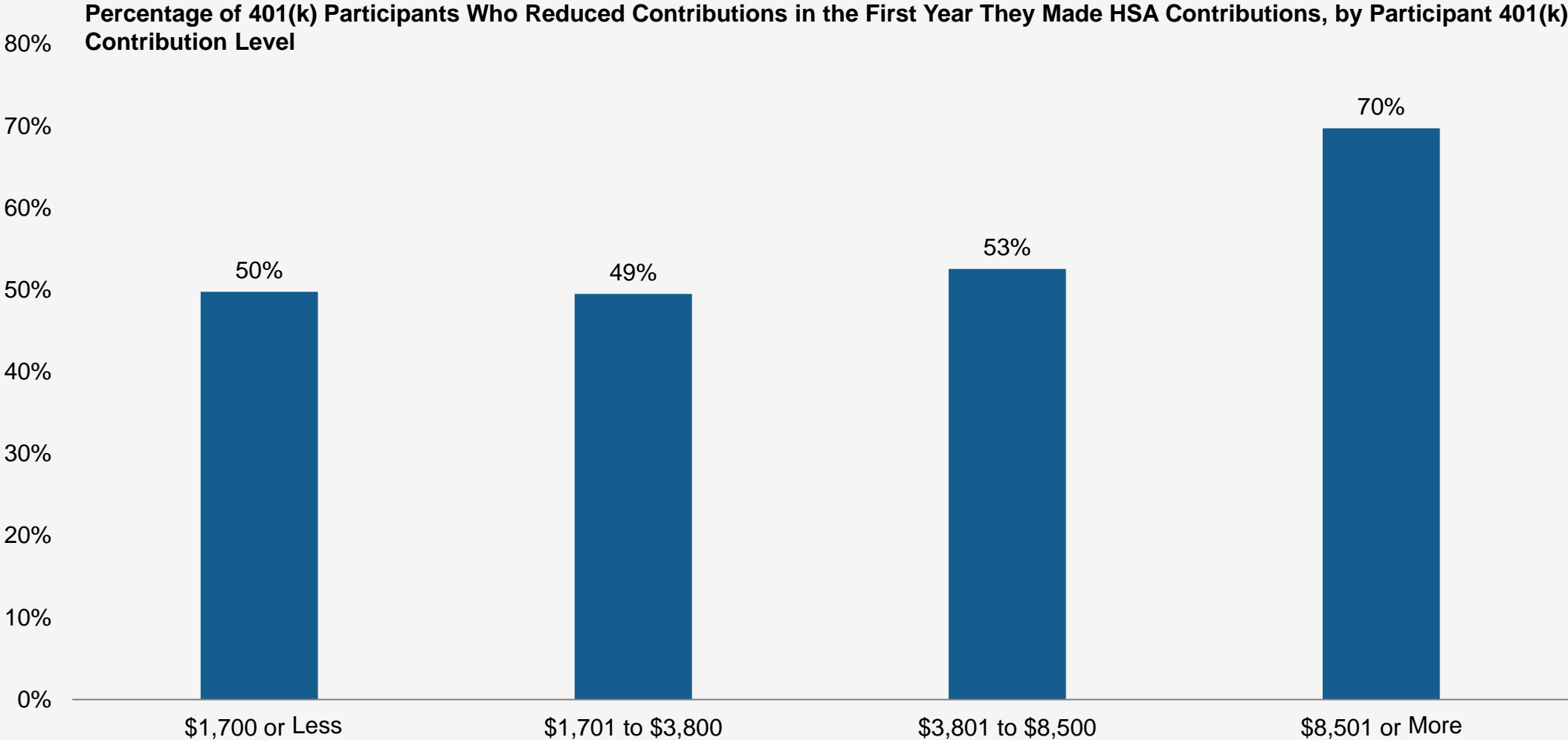
Little Variability in Crowding out by Age



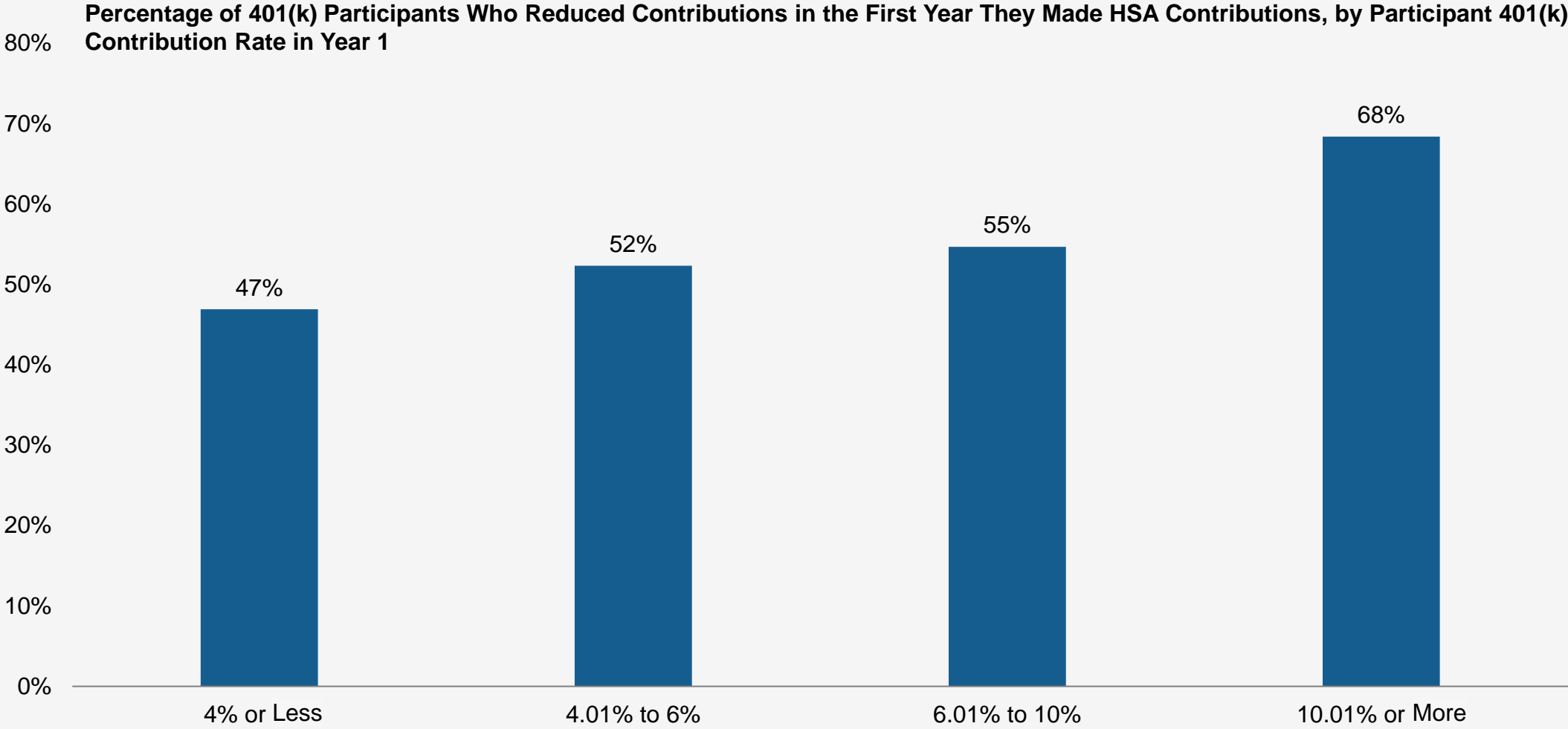
Little Variability in Crowding out by Job Tenure



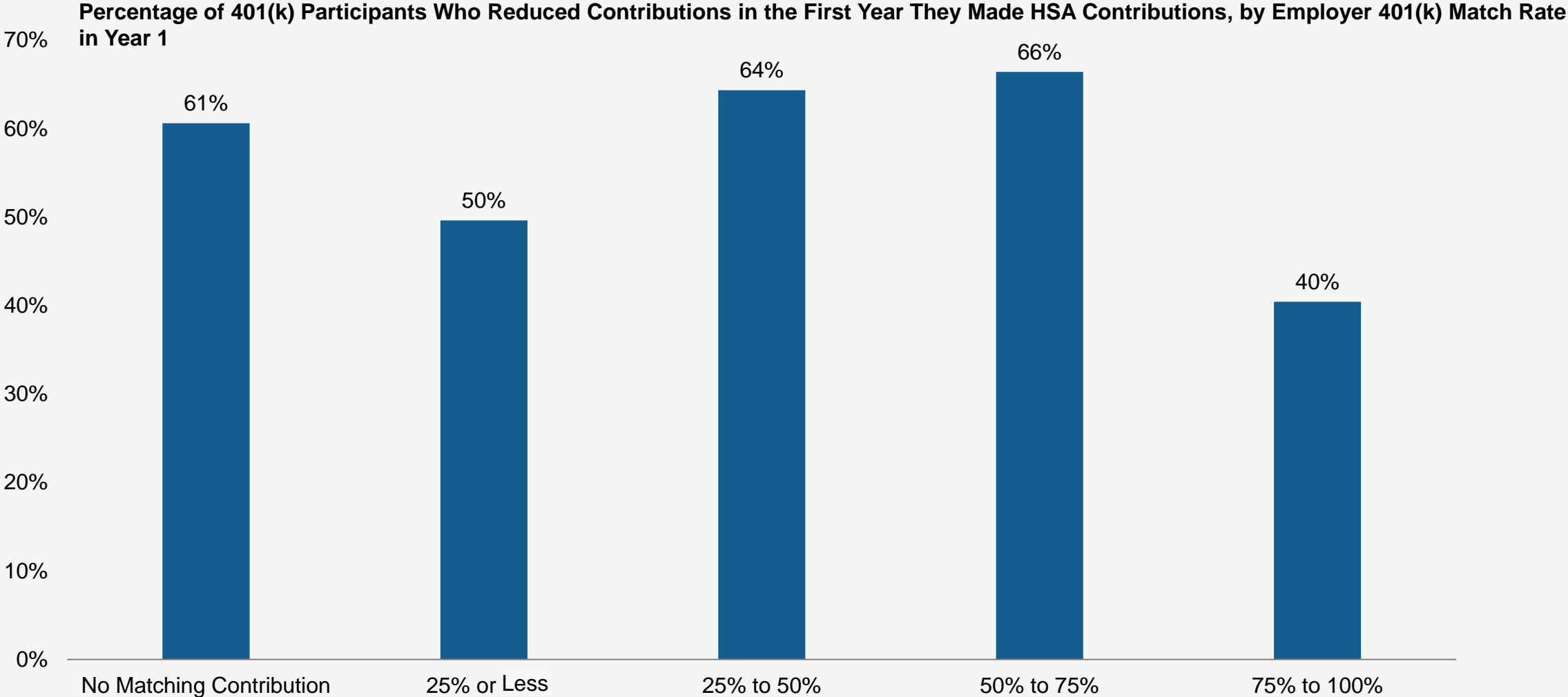
Those With Highest 401(k) Contributions in Year 1 Most Likely to Reduce 401(k) Contributions in Year 2



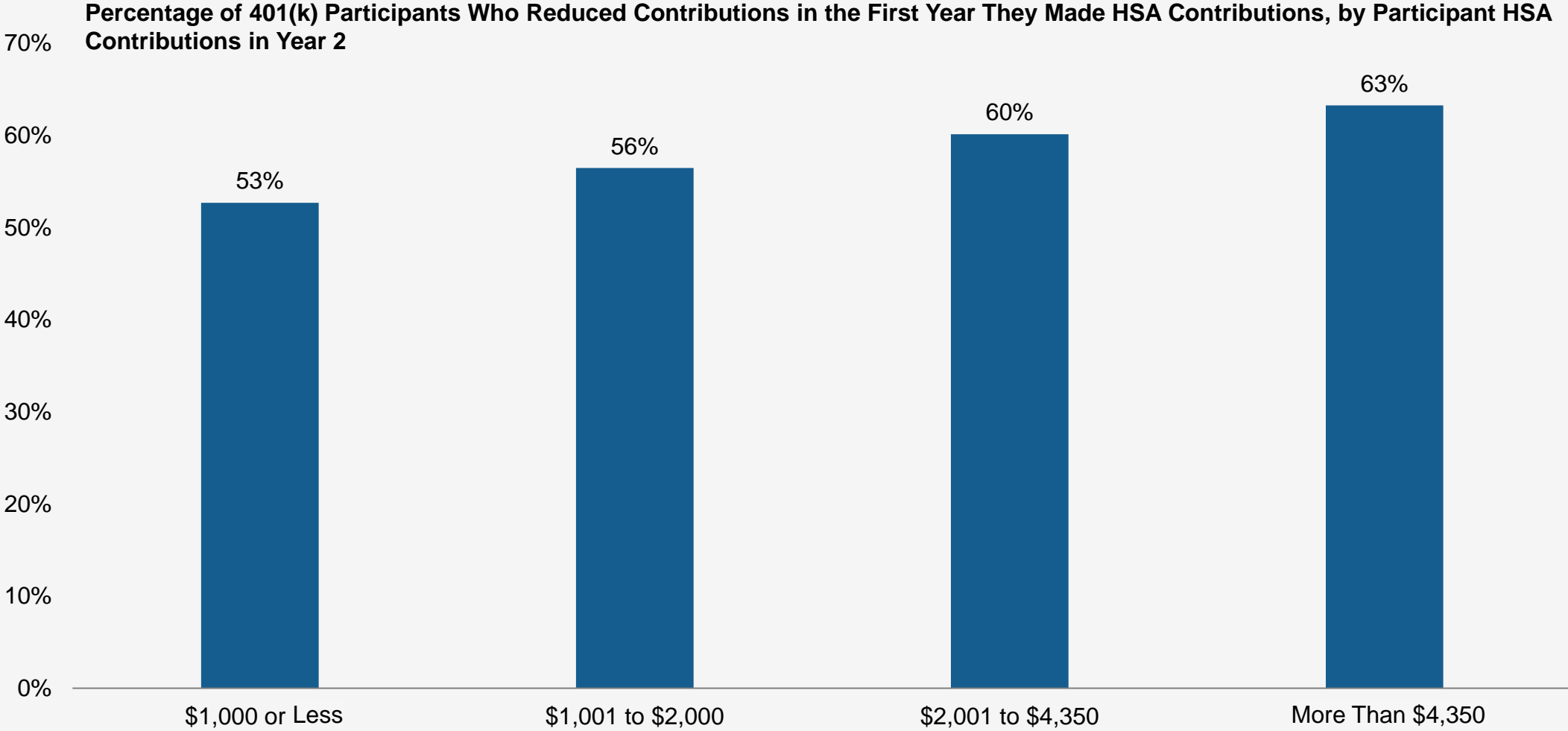
Those With the Highest 401(k) Contribution Rate in Year 1 Most Likely to Reduce 401(k) Contributions in Year 2



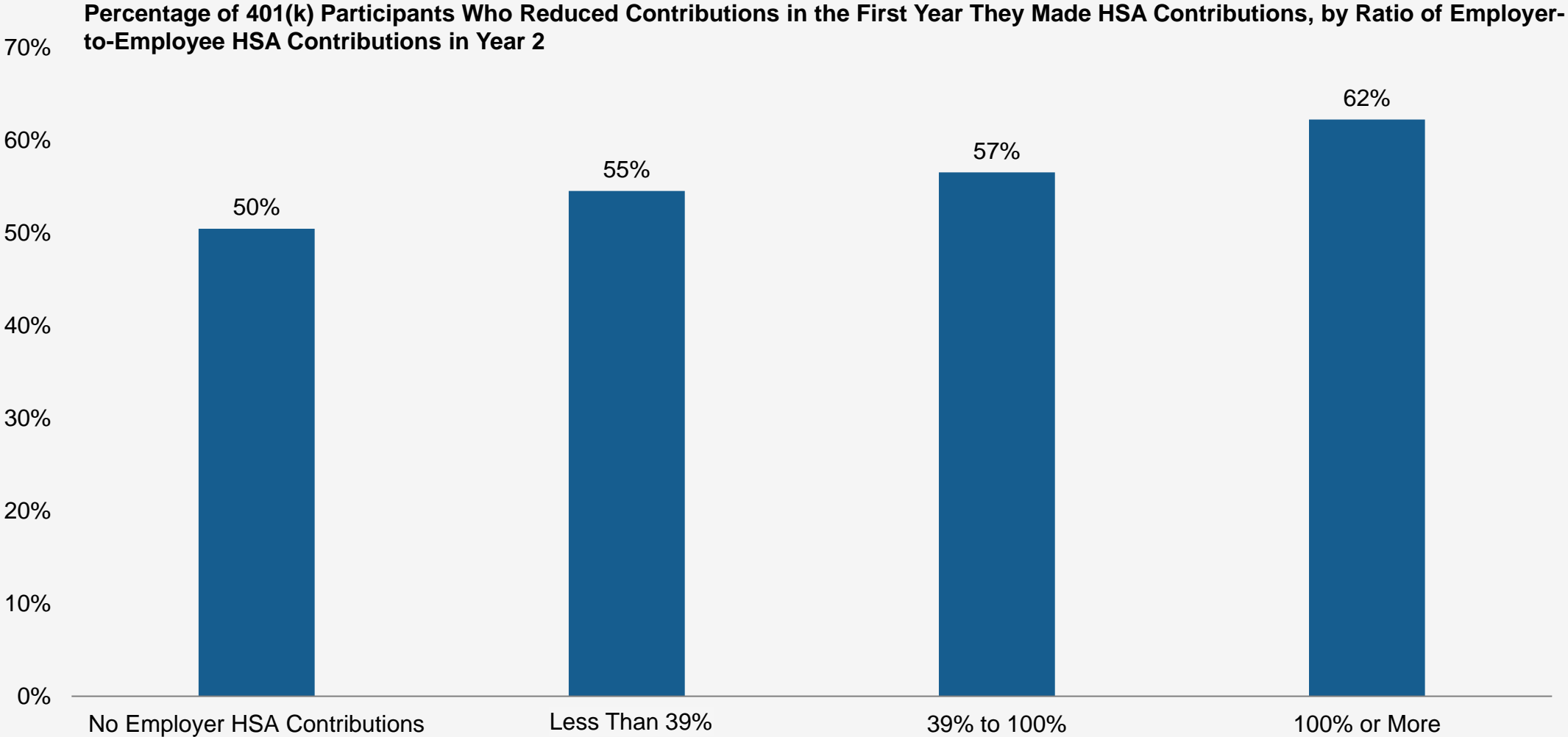
Employer Match Rates Appear to Have No Impact on the Relationship Between 401(k) Contributions and HSA Contributions



Those With the Highest HSA Contributions Are Most Likely to Reduce 401(k) Contributions in Year 2

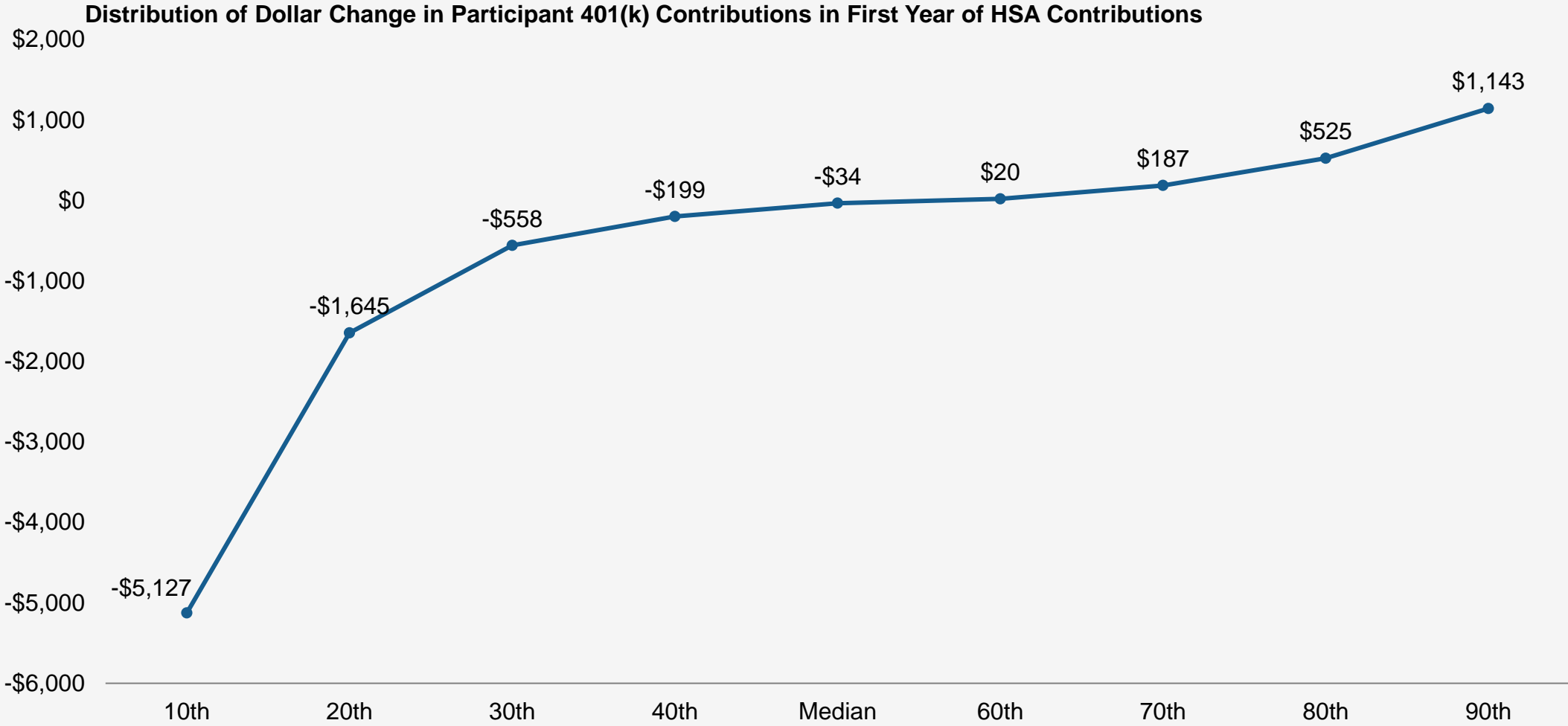


Those With the Highest Ratio of Employer to Employee HSA Contribution Rates Are Most Likely to Reduce 401(k) Contributions in Year 2

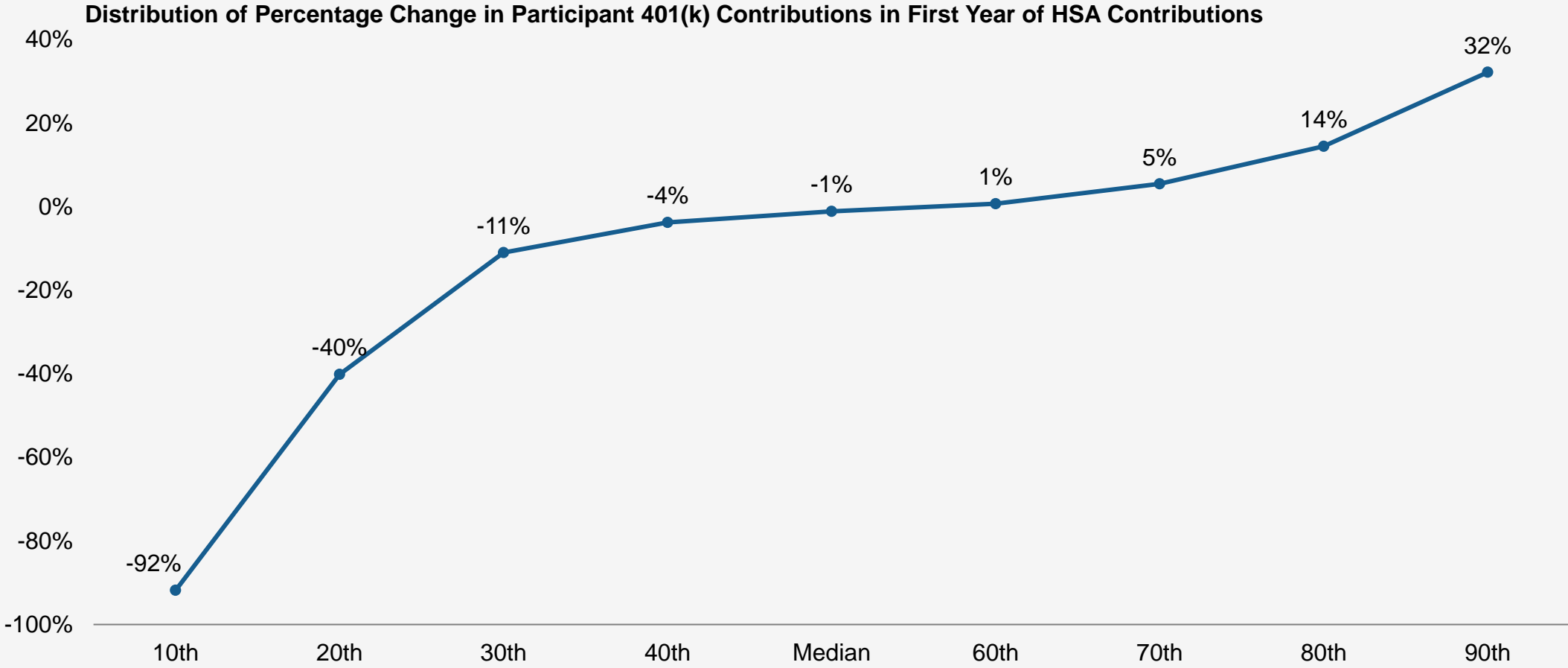


CHANGE IN EMPLOYEE CONTRIBUTIONS TO 401(K) PLAN THE YEAR THAT HSA CONTRIBUTIONS BEGIN

The Median Reduction in 401(k) Contributions was \$34 but Ranged From Large Reductions to Large Increases



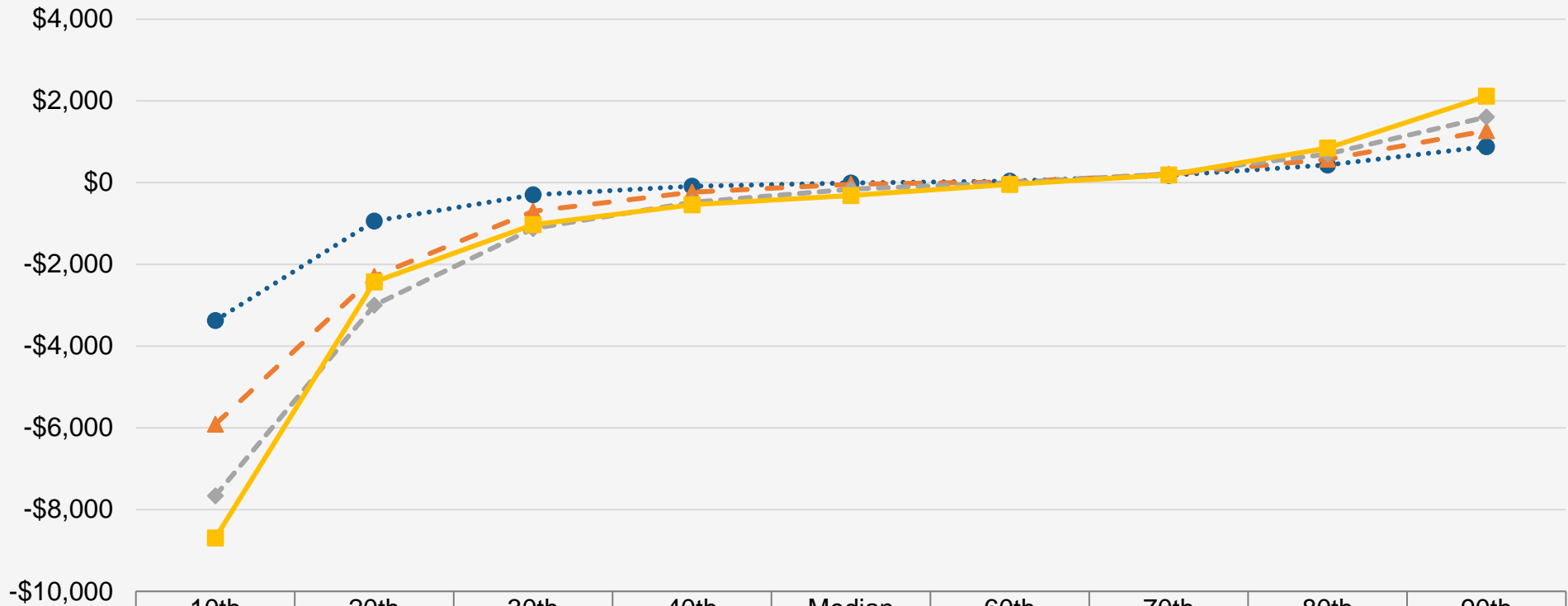
The Median Reduction in 401(k) Contributions was 1% but Ranged From Large Reductions to Large Increases



CHANGE IN 401(K) EMPLOYEE CONTRIBUTIONS AS A FUNCTION OF VARIOUS FACTORS

401(k) Contributions Decreased as HSA Contributions Increased

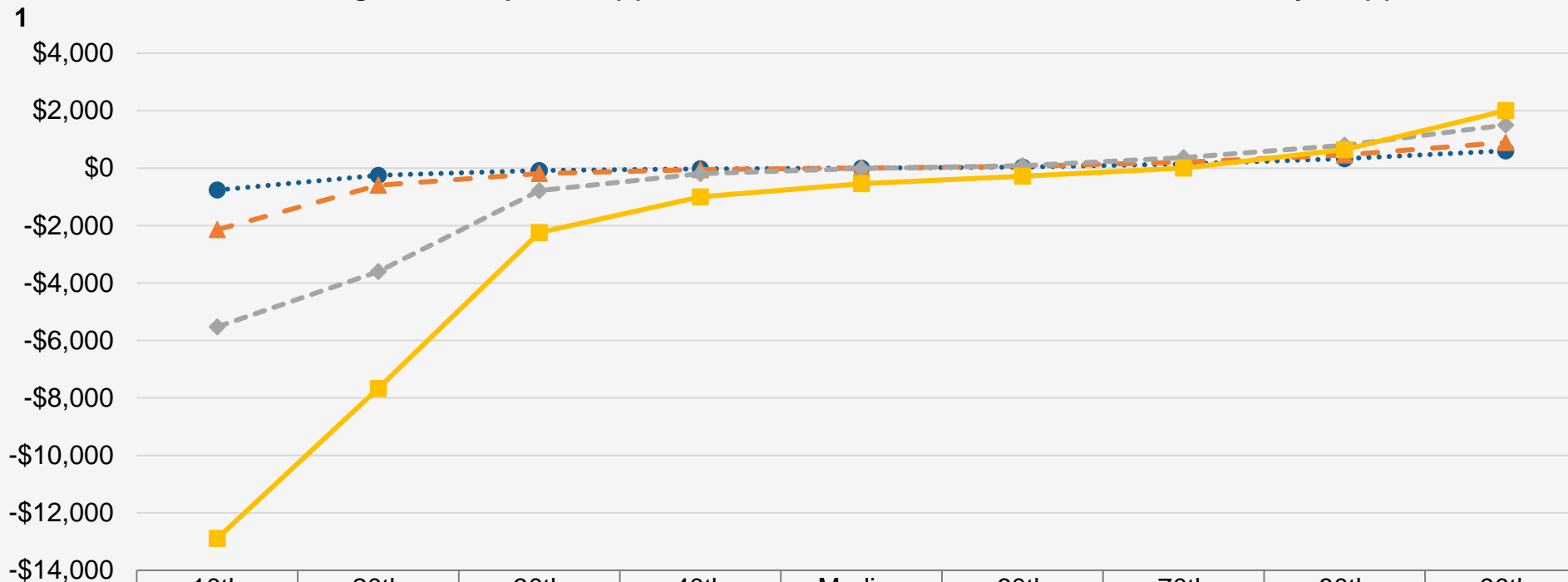
Distribution of Dollar Change in Participant 401(k) Contributions in First Year of HSA Contributions, by HSA Contributions



	10th	20th	30th	40th	Median	60th	70th	80th	90th
••• \$1,000 or Less	-\$3,375	-\$941	-\$298	-\$88	-\$8	\$37	\$177	\$431	\$880
-▲- \$1,001 to \$2,000	-\$5,912	-\$2,293	-\$698	-\$233	-\$39	\$18	\$202	\$571	\$1,270
-◆- \$2,001 to \$4,350	-\$7,662	-\$3,000	-\$1,124	-\$484	-\$161	\$0	\$212	\$700	\$1,605
-■- More Than \$4,350	-\$8,695	-\$2,430	-\$1,029	-\$542	-\$315	-\$45	\$189	\$846	\$2,113

Those Contributing the Most to Their 401(k) Experienced the Largest 401(k) Declines at the Median in the First Year of HSA Contributions

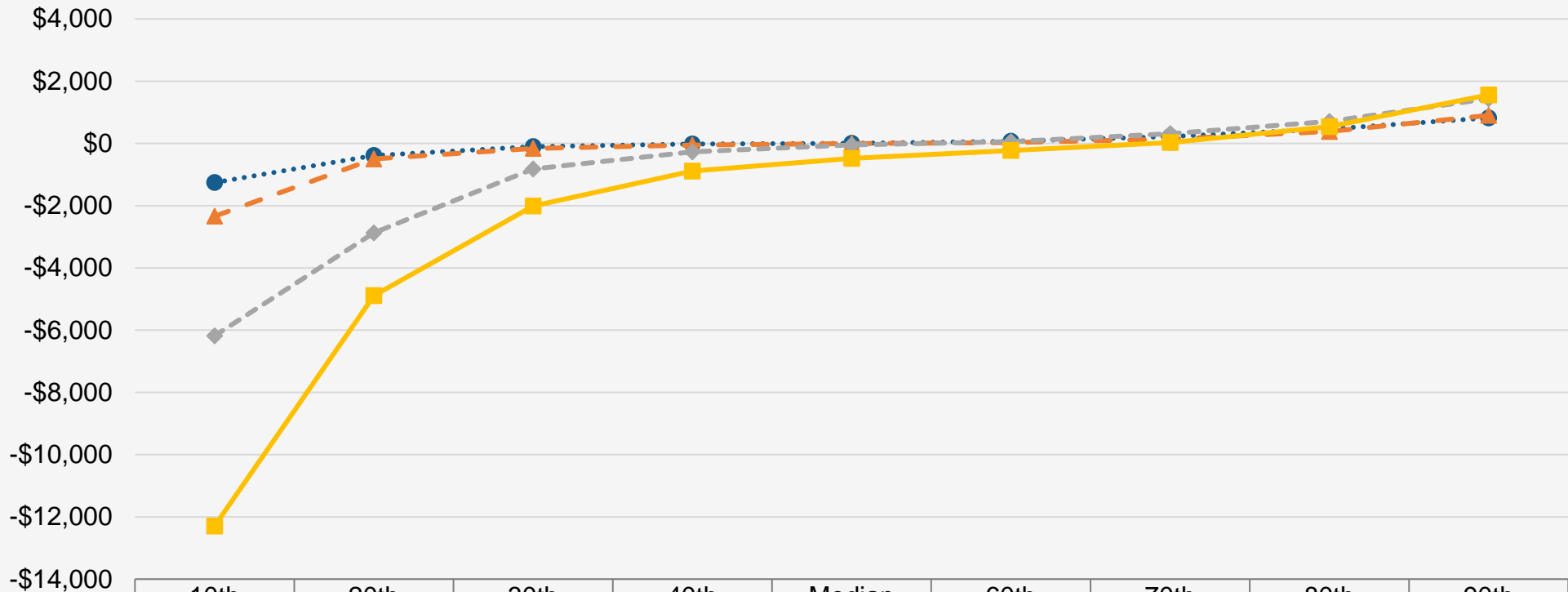
Distribution of Dollar Change in Participant 401(k) Contributions in First Year of HSA Contributions, by 401(k) Contributions in Year 1



	10th	20th	30th	40th	Median	60th	70th	80th	90th
●●● \$1,700 or Less	-\$763	-\$251	-\$84	-\$27	\$0	\$37	\$142	\$327	\$600
—▲— \$1,701 to \$3,800	-\$2,143	-\$596	-\$188	-\$53	\$1	\$61	\$210	\$457	\$892
—◆— \$3,801 to \$8,500	-\$5,524	-\$3,600	-\$784	-\$193	-\$13	\$83	\$366	\$798	\$1,499
—■— \$8,501 or More	-\$12,887	-\$7,668	-\$2,242	-\$1,000	-\$540	-\$281	\$1	\$643	\$2,002

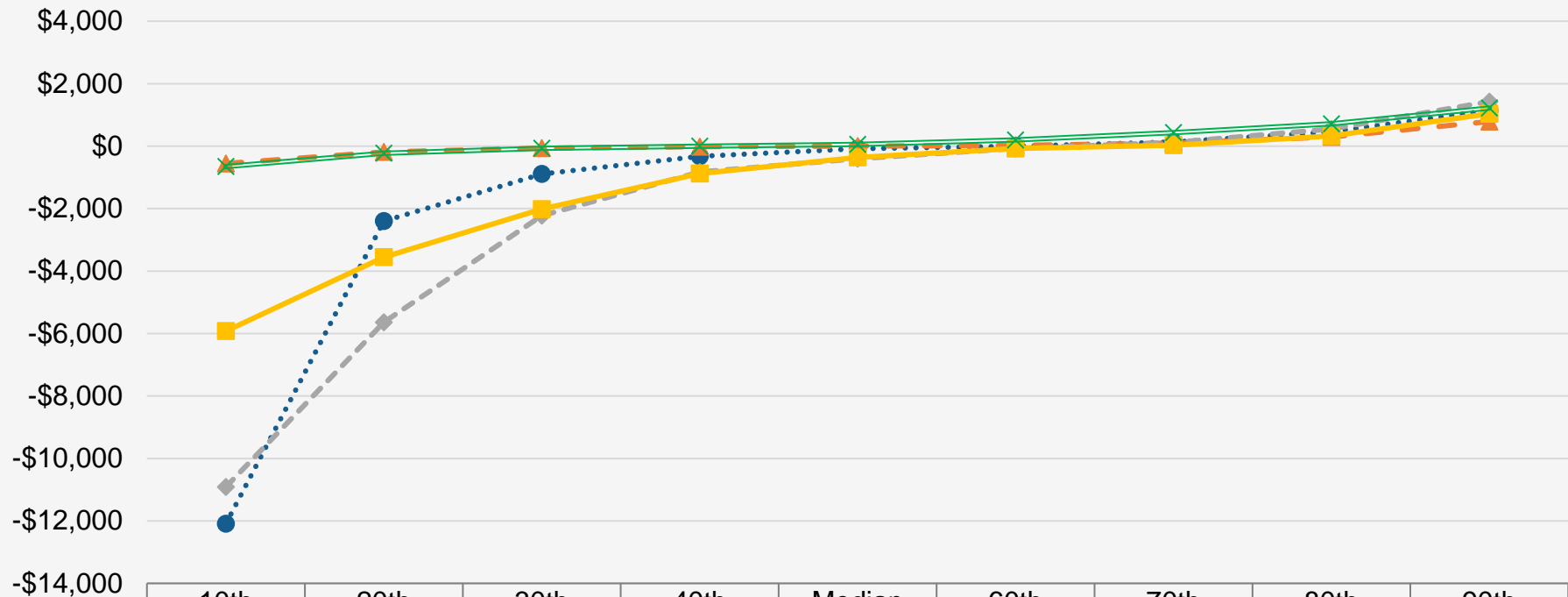
The Median Reduction in 401(k) Contributions Increased With the Year 1 401(k) Contribution Rate

Distribution of Dollar Change in Participant 401(k) Contributions in First Year of HSA Contributions, by Year 1 401(k) Contribution Rate



	10th	20th	30th	40th	Median	60th	70th	80th	90th
●●● 4% or Less	-\$1,257	-\$386	-\$102	-\$18	\$4	\$72	\$222	\$466	\$820
▲ 4.01% to 6%	-\$2,338	-\$497	-\$160	-\$52	-\$6	\$30	\$136	\$383	\$903
◆ 6.01% to 10%	-\$6,181	-\$2,873	-\$822	-\$271	-\$49	\$56	\$315	\$707	\$1,438
■ 10.01% or More	-\$12,296	-\$4,890	-\$2,012	-\$889	-\$482	-\$227	\$29	\$539	\$1,559

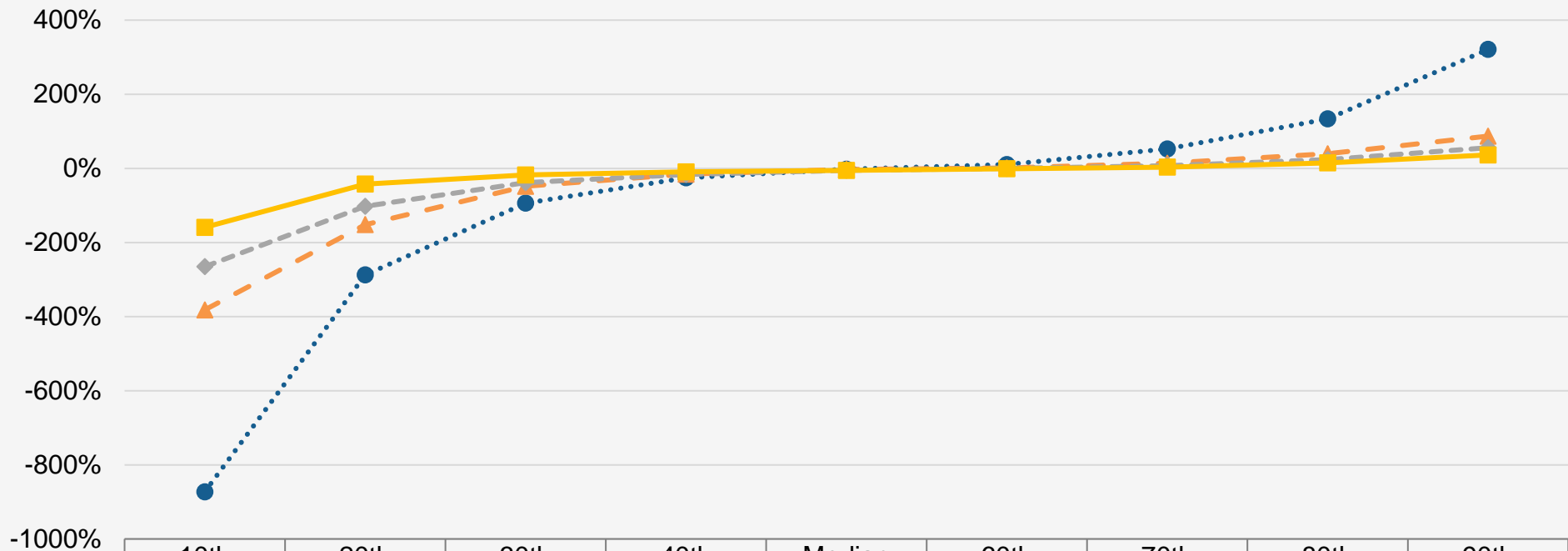
Distribution of Dollar Change in Participant 401(k) Contributions in First Year of HSA Contributions, by Year 1 401(k) Match Rate



	10th	20th	30th	40th	Median	60th	70th	80th	90th
••••• No Matching Contribution	-\$12,089	-\$2,400	-\$890	-\$324	-\$84	-\$2	\$131	\$459	\$1,144
—▲— 25% or Less	-\$556	-\$185	-\$63	-\$17	\$0	\$26	\$98	\$295	\$788
—◆— 25% to 50%	-\$10,912	-\$5,640	-\$2,226	-\$830	-\$402	-\$76	\$121	\$550	\$1,424
—■— 50% to 75%	-\$5,921	-\$3,554	-\$2,016	-\$878	-\$360	-\$76	\$31	\$325	\$1,039
—×— 75% to 100%	-\$653	-\$227	-\$69	-\$1	\$56	\$199	\$435	\$715	\$1,220

RATE OF CROWDING OUT BETWEEN 401(K) EMPLOYEE CONTRIBUTIONS AND HSA EMPLOYEE CONTRIBUTIONS AS A FUNCTION OF VARIOUS FACTORS

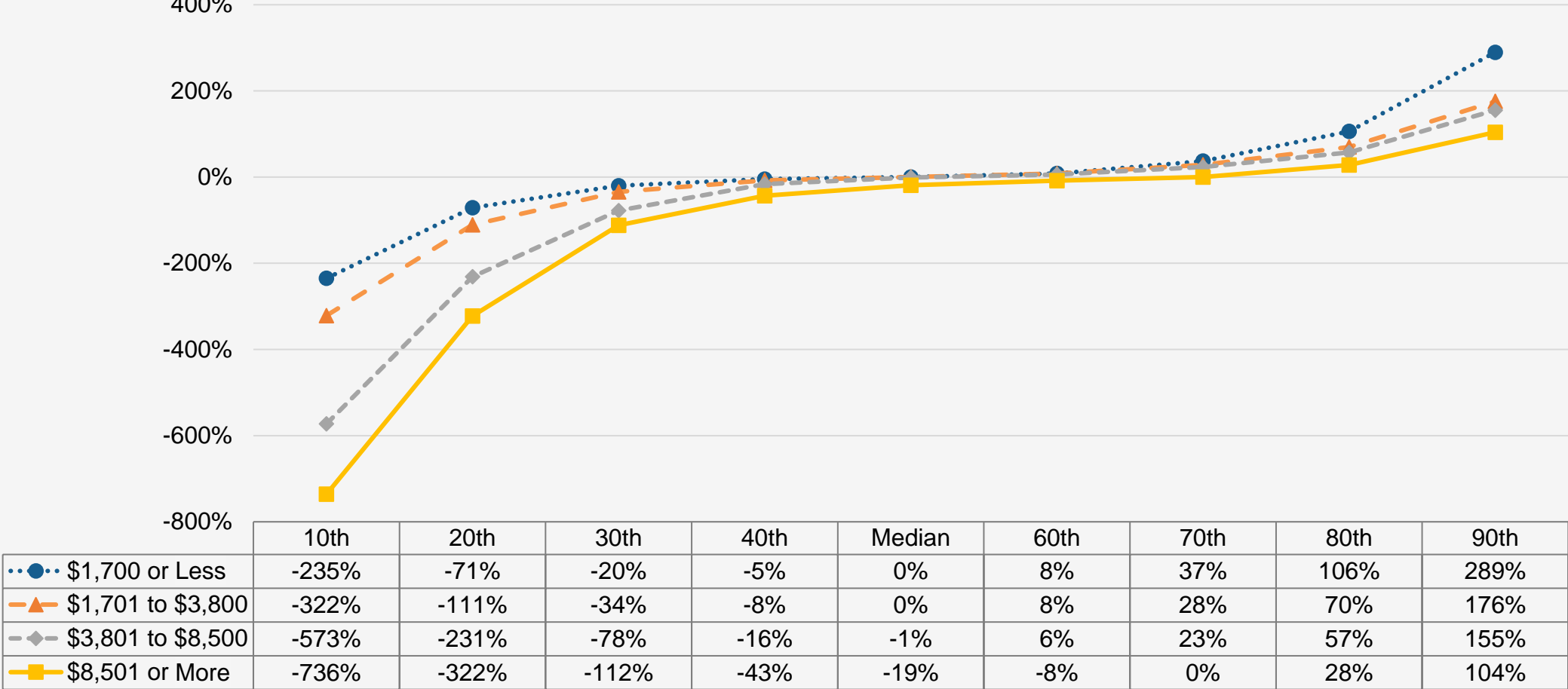
Distribution of Dollar Change in Participant 401(k) Contributions in First Year of HSA Contributions, by Year 2 HSA Contribution



	10th	20th	30th	40th	Median	60th	70th	80th	90th
●●● \$1,000 or Less	-873%	-287%	-94%	-25%	-2%	10%	53%	134%	321%
—▲— \$1,001 to \$2,000	-382%	-152%	-48%	-16%	-3%	1%	14%	40%	87%
—◆— \$2,001 to \$4,350	-265%	-102%	-38%	-16%	-5%	0%	7%	24%	56%
—■— More Than \$4,350	-159%	-42%	-18%	-9%	-5%	-1%	3%	15%	36%

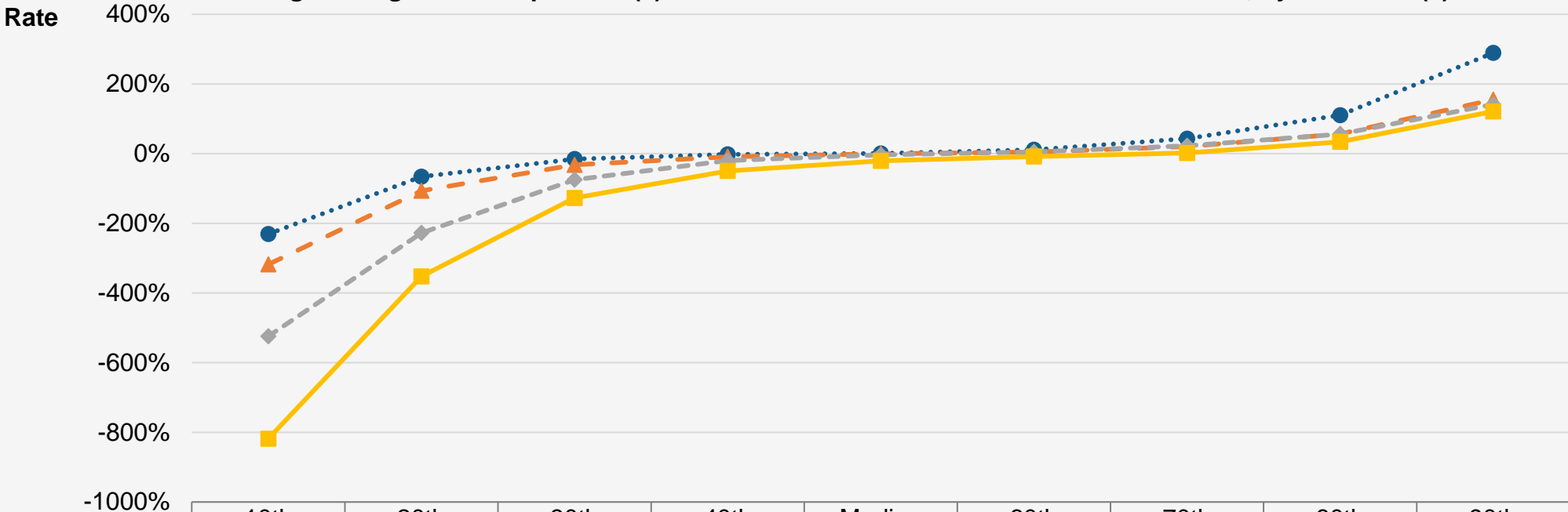
Those Contributing the Most to Their 401(k) Experienced the Largest 401(k) Contribution Rate Declines at the Median in the First Year of HSA Contributions

Distribution of Percentage Change in Participant 401(k) Contributions in First Year of HSA Contributions, by 401(k) Contributions in Year 1



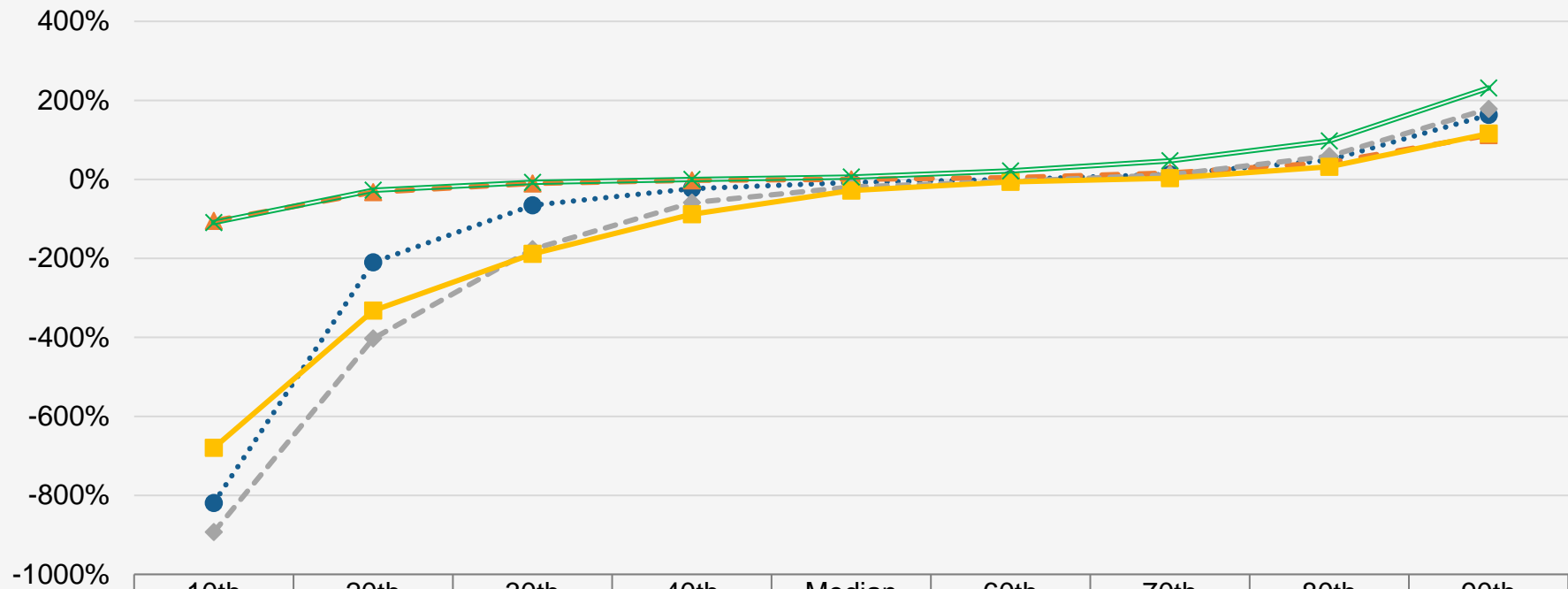
The Median Reduction in 401(k) Contributions Increased With Year 1 401(k) Contribution Rate

Distribution of Percentage Change in Participant 401(k) Contributions in First Year of HSA Contributions, by Year 1 401(k) Contribution Rate



	10th	20th	30th	40th	Median	60th	70th	80th	90th
●●● 4% or Less	-231%	-66%	-16%	-2%	1%	11%	43%	110%	289%
—▲— 4.01% to 6%	-318%	-107%	-32%	-9%	-1%	4%	20%	56%	155%
—◆— 6.01% to 10%	-524%	-228%	-75%	-20%	-3%	5%	22%	56%	141%
—■— 10.01% or More	-818%	-352%	-127%	-50%	-21%	-8%	2%	34%	121%

Distribution of Percentage Change in Participant 401(k) Contributions in First Year of HSA Contributions, by Year 1 401(k) match rate



	10th	20th	30th	40th	Median	60th	70th	80th	90th
••••• No Matching Contribution	-819%	-210%	-66%	-23%	-8%	0%	13%	49%	163%
—▲— 25% or Less	-105%	-32%	-10%	-3%	0%	5%	16%	42%	112%
—◆— 25% to 50%	-893%	-403%	-177%	-59%	-19%	-5%	12%	59%	179%
—■— 50% to 75%	-680%	-332%	-189%	-88%	-28%	-6%	3%	32%	116%
—×— 75% to 100%	-109%	-27%	-8%	0%	6%	21%	47%	97%	231%

APPENDIX

About the 401(k) Data

- In an ongoing collaborative effort, the Employee Benefit Research Institute (EBRI) and the Investment Company Institute (ICI) collect annual data on millions of 401(k) plan participants as a means to examine how these participants manage their 401(k) plan accounts. The EBRI/ICI Participant-Directed Retirement Plan Data Collection Project is the largest, most representative repository of information about individual 401(k) plan participant accounts. As of December 31, 2016, the EBRI/ICI database included statistical information about:
 - 27.1 million 401(k) plan participants, in
 - 110,794 employer-sponsored 401(k) plans, holding
 - \$2.0 trillion in assets.
- The 2016 EBRI/ICI database covers 49 percent of the universe of 401(k) plan participants, 20 percent of plans, and 44 percent of 401(k) plan assets. The project is unique because it includes data provided by a wide variety of plan recordkeepers and, therefore, represents the activity of participants in 401(k) plans of varying sizes — from very large corporations to small businesses — with a variety of investment options.

About the HSA Data

The EBRI HSA Database is a representative repository of information about individual HSAs. The database is unique because it includes data provided by a wide variety of account recordkeepers and, therefore, represents the characteristics and activity of a broad range of HSA owners.

As of Dec. 31, 2016, the EBRI Database includes:

- 5.5 million health savings accounts.
- \$11.3 billion in assets.

The 2016 data cover 27 percent of the universe of HSAs and 31 percent of HSA assets.¹³ Most HSAs in the EBRI HSA Database were initially opened within the past few years. Overall, 77 percent of the accounts were opened between 2013 and 2016.

EBRI EMPLOYEE BENEFIT
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