ADVANCED ANALYTICAL
CONSULTING GROUP

SELF-INSURED HEALTH BENEFIT PLANS 2021
Based on Filings through 2018

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SUMMARY

This document analyzes the funding mechanism of employer-sponsored health benefit plans that filed a *Form 5500 Annual Return/Report of Employee Benefit Plans* ("Form 5500"). It compares fully insured, self-insured, and mixed-funded health plans for reporting periods that ended in 2018 and presents select historical series for the years 2009 through 2018. For a subset of health plan sponsors, publicly available corporate financial data were also used. The primary findings include:

- Almost one-half (48.9%) of Form 5500 filing health plans were self-insured or mixed-funded (funded through a mixture of insurance and self-insurance) in 2018, and those plans covered 81.1% of plan participants.
- At the plan level, the shares of self-insured (42.2%), mixed-funded (6.8%), and fully insured (51.1%) plans represent a continuing shift toward self-insurance relative to 2017 and earlier years.
- In 2018, self-insured plans covered 45.3% of plan participants, mixed-funded plans 35.8%, and fully insured plans 18.9%. These participant-level shares represent a modest shift toward self-insurance since 2017, but are similar to those in 2016.
- As reported in Form 5500 filings, stop-loss coverage among self-insured plans continued its decline from 23.7% in 2017 to 23.3% in 2018. Stop-loss coverage among mixed-funded plans also decreased from 19.9% in 2017 to 18.3% in 2018. However, these figures likely underestimate the true prevalence of stop-loss insurance in each year.
- Most Form 5500 filing plans with fewer than 100 participants were self-insured in 2018. This is due to Form 5500 filing requirements and is not representative of all small plans.
- Among Form 5500 filing plans with 100 or more participants, the prevalence of self-insurance generally increased with plan size. For example, 27.2% of plans with 100–199 participants were mixed-funded or self-insured in 2018, compared with 89.1% of plans with 5,000 or more participants. The pattern was similar in 2017.
- Mixed-funding is found primarily among very large plans. For example, 1.7% of plans with 100–199 participants were mixed-funded in 2018, compared with 41.9% of plans with 5,000 or more participants.
- Self-insurance rates varied by industry, with participants in utilities, communications & information, and transportation firms being most commonly in a self-insured plan.
- Plans of for-profit and not-for-profit organizations differed mostly in mixed-funding and self-insurance. Mixed funding was far less prevalent at not-for-profit entities than at for-profit firms; the opposite holds for self-insurance.
- We found no consistent evidence that the financial health of fully insured plan sponsors is better or worse than that of mixed-funded or self-insured sponsors.
- In addition to group health plans discussed above, this report analyzes Group Insurance Arrangements (GIAs), which are fully insured by definition. For 2018, 42 GIAs filed a Form 5500. They covered about 327,000 participants, were generally larger than group health plans, and were disproportionately active in the finance, insurance, and real estate industry.

CONTENTS

1. INTRODUCTION

The 2010 Patient Protection and Affordable Care Act (ACA) (§1253) mandates that the Secretary of Labor prepare annual reports with general information on self-insured group health plans (including plan type, number of participants, benefits offered, funding arrangements, and benefit arrangements), as well as data from the financial filings of self-insured employers. The U.S. Department of Labor (DOL) engaged Advanced Analytical Consulting Group, Inc. (AACG) to assist with the ACA mandate. This document is intended to serve as an appendix to the Secretary's 2021 *Report to Congress*.

As required by the ACA, the primary data source for this document is the information provided to the DOL by health plan sponsors on *Form 5500 Annual Return/Report of Employee Benefit Plans* ("Form 5500") filings. For a subset of health plan sponsors, publicly available corporate financial data were also used.

This report is the eleventh installment of a series that began in 2011. While the analysis has been refined over time, no major methodological changes affected the current report relative to last year's iteration.

The current report presents results for Form 5500 filings for plan years that ended in 2009–2018 (i.e., several years before and after the effective implementation of the ACA in 2014). The primary findings for 2018 are similar to those for 2017, with a noteworthy item. Self-insurance has become more prevalent in 2018, but much of the increase relates to a rise in the number of small, self-insured plans and their selective inclusion in the analysis. In particular, some changes between 2017 and 2018 were driven by very small, self-insured plans that provide benefits through a Multiple Employer Welfare Arrangement (MEWA).

Section 2 of this report describes Form 5500 and other data sources, including data quality, consistency issues, and the extent to which financial data were matched to health plan filings. Section 3 defines funding mechanism as used in this report. Section 4 presents the results of our data analysis. Section 5 briefly characterizes GIAs, and Section 6 concludes.

The views, opinions, and/or findings contained in this report should not be construed as an official Government position, policy or decision, unless so designated by other documentation issued by the appropriate governmental authority.

2. DATA SOURCES

The quantitative analysis in this report is based on three data sources: Form 5500 group health plan filings, Internal Revenue Service *Form 990 Return of Organization Exempt From Income Tax* ("Form 990") filings, and Bloomberg data with corporate financial records. This section discusses the data sources and the algorithms to match the three sources.

Form 5500 Filings of Health Benefit Plans

The Form 5500 Series was developed to assist employee benefit plans in satisfying annual reporting requirements under Title I and Title IV of the Employee Retirement

Income Security Act (ERISA) and under the Internal Revenue Code. The Form 5500, including required schedules and attachments, collects information concerning the operation, funding, assets, and investments of pensions and other employee benefit plans. It is generally due, unless extended, by the last day of the seventh month after the plan year ends (2018 Instructions for Form 5500).

ERISA requires any administrator or sponsor of an employee benefit plan subject to ERISA to annually report details on such plans unless exempt from filing pursuant to regulations issued by the DOL. Welfare plans with fewer than 100 participants ("small plans") are generally exempt, except if they operate a trust or are themselves a MEWA that is a single plan. As a result, small welfare plans that do not need to file a Form 5500 are not covered by the analysis in this report.[1] Also, non-ERISA plans, such as governmental plans and church plans, do not need to file a Form 5500 and are not covered by the analysis in this report.

Health, disability, and any other benefits that are not pension benefits are collectively referred to as welfare benefits. Generally, companies file separate Forms 5500 for pension benefits and for welfare benefits. This report centers on health benefits only and is thus based on a subset of welfare benefit filings.[2]

The Form 5500 consists of a main Form 5500 and a number of schedules and attachments, depending on the type of plan and its features. The main Form 5500 collects such general information as the name of the sponsoring employer, the type of benefits provided (pension, health, disability, life insurance, etc.), the funding and benefit arrangements, the effective date of the plan, and the number of plan participants. If some or all plan benefits are provided through external insurance contracts, Form 5500 plan filings must include one or more Schedules A with details on each insurance contract (name of insurance company, type of benefit covered, number of persons covered, expenses, etc.). If any assets of the plan are held in a trust, a Schedule H or Schedule I must be attached with financial information. Schedule H applies to plans with 100 or more participants, whereas smaller plans may file the shorter Schedule I. Starting with the 2009 plan year, certain small plans have been able to file a Form 5500-SF (Short Form) with less detailed information.[3] This report's analysis includes 3,544 Form 5500-SF filings in 2018.

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[1] In 2016, the DOL estimated that 2,158,000 health plans cover fewer than 100 participants (Federal Register Vol. 81, July 21, 2016, page 47502). Our analysis includes only 7,720 such plans (0.4%).

[2] While this report only addresses health benefit information, 84% of 2018 Form 5500 health plans provided both health and other types of benefits (dental, disability, etc.).

[3] To be eligible to use the Form 5500-SF, the plan must generally have fewer than 100 participants at the beginning of the plan year, meet the conditions for being exempt from the requirement that the plan's financial records be audited by an independent qualified public accountant, have 100% of its assets invested in certain secure investments with a readily determinable fair value, hold no employer securities, not be a multiemployer plan, and not be required to file a Form M-1, *Report for Multiple Employer Welfare Arrangements (MEWAs) and Certain Entities Claiming Exception (ECEs)* for the plan year (2018 Instructions for Form 5500-SF).

Our analysis covers almost the universe (not a sample) of health plans that filed a Form 5500. Aside from amended filings and filings with zero participants at both the beginning and the end of the reporting period, there were 63,697 filings with a reporting period that ended in 2018 ("statistical year 2018"). Filings are excluded only if (1) the filing was followed by another filing of the same plan for a later period in the same year (1,067 filings in 2018), (2) a Form 5500 was filed even though the plan was exempt from filing (1,669 filings in 2018), (3) the plan name suggests that it does not offer health benefits that are the subject of the ACA (388 filings in 2018), or (4) the filing was submitted by a GIA (43 filings in 2018).For 2018, the analysis is based on 60,530 plans that together covered 77.6 million participants.[4]

Table 1 presents the distribution of plan size, as measured by the number of participants at the end of the reporting period, for filings in statistical year 2018. Throughout this report, participants may include active and retired or separated employees, but exclude dependents.

Table 1. Distribution of Health Plans and Health Plan Participants, by Plan Participant Counts at the End of the Reporting Period (2018)

Participants in plan	Plans	Percent	Participants (millions)	Percent
Zero	1,567	2.6%	0.0	0.0%
1–99	6,153	10.2%	0.2	0.3%
100–199	19,183	31.7%	2.8	3.6%
200–499	17,935	29.6%	5.6	7.2%
500–999	6,738	11.1%	4.7	6.1%
1,000–1,999	3,903	6.4%	5.5	7.1%
2,000–4,999	2,844	4.7%	8.8	11.4%
5,000+	2,207	3.6%	50.0	64.5%
Total	60,530	100.0%	77.6	100.0%

Source: Form 5500 health plan filings.
Percentages may not sum to 100% due to rounding.

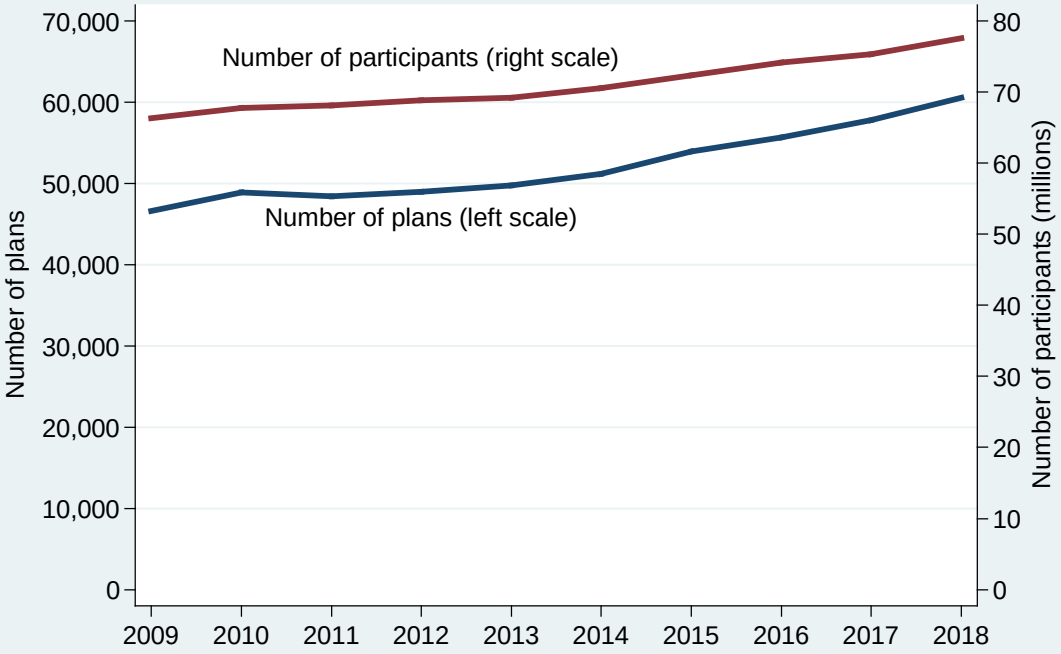
As previously noted, health plans with fewer than 100 participants (small plans) are generally not required to file a Form 5500 unless they hold assets in a trust. Small plans in our analysis are thus a select subset of all small plans. In contrast, plans with 100 or more participants (large plans) are generally required to file a Form 5500 unless otherwise exempt from filing, so we believe our analysis covers the vast majority of large ERISA-covered plans in the United States.

[4] The number of participants is based on the number reported in Form 5500 filings and may overestimate the number of plan participants who receive health benefits. A single Form 5500 filing may reflect multiple welfare benefit types/options available under a single plan, and some participants may opt out of the health benefit option but participate in a different welfare benefit option. For example, in a welfare plan that provides multiple types of benefits, 500 employees may receive long-term disability benefits while only 400 employees choose health benefits. The number of plan participants reported on the Form 5500 would be 500.

Plans with fewer than 100 participants accounted for less than 13% of plans in our analysis.[5] Most plans had between 100 and 499 participants. Most participants, however, were in the largest plans. Plans with 5,000 or more participants make up only 3.6% of all plans in our sample, but they account for 64.5% of all participants.

Our analysis covers statistical years 2009 through 2018. As shown in Figure 1 and its underlying counts in Table 2, each year includes between approximately 46,000 and 61,000 plans providing health benefits. The number of participants ranged from approximately 66 million to 78 million per year. Between 2009 and 2018, the number of plans and plan participants generally increased. The number of plans decreased in 2011 but rebounded in 2012. The number of plan participants did not decrease in 2011, which could be consistent with plans that terminated or otherwise ceased filing in 2011 being generally small, or with the 2011 reduction in plan filings being in part due to plan mergers. Between 2017 and 2018, the number of plans grew by 4.8% to 60,530, and the number of participants increased by 2.9% to 77.6 million. The number of plans grew faster than the number of participants because many small plans entered the analysis; also see page 24.

Figure 1. Health Plans and Participants, by Statistical Year



Source: Form 5500 filings.

[5] The filing exemption for plans with fewer than 100 participants that do not hold assets in a trust is based on number of participants at the beginning of the year, whereas Table 1 is based on end-of-year participants. Some plans with zero or 1–99 participants in Table 1 may be plans with more than 100 participants at the beginning of the year and fewer than 100 (including zero) at the end of the year.

Table 2. Health Plans and Participants, by Statistical Year

Statistical year	Plans	Participants (millions)
2009	46,624	66.3
2010	48,887	67.8
2011	48,407	68.1
2012	48,943	68.8
2013	49,747	69.2
2014	51,143	70.5
2015	53,958	72.3
2016	55,669	74.1
2017	57,750	75.4
2018	60,530	77.6

Source: Form 5500 health plan filings.

Table 3 shows the percentage of health plan filings that could be matched to their corresponding filing in the previous year. While generally in the 84%–89% range, this match rate was lower in 2009, perhaps because of data capture errors related to the then-new electronic filing requirement. In order to gauge consistency in the reporting of the number of participants, the table illustrates to what extent participant counts of matched pairs of plans changed from one year to the next. At the median, plans reported approximately the same size as in the prior year, suggesting that the matches are generally accurate and that there is consistency in the reporting. Except in 2009, the distributions are fairly stable over time and the interquartile range (the difference between the 75th and 25th percentiles) of plan size growth was about 15 percentage points.

Table 3. Distribution of Year-on-Year Participant Increases in Plans Matched across Years

Statistical year	Number of plans in year t	Percentage matched to a plan in t-1	Year-on-year increase		
			25th pct	Median	75th pct
2009	46,624	80.7%	-12.1%	-2.1%	5.3%
2010	48,887	84.2%	-8.7%	-0.7%	6.1%
2011	48,407	89.2%	-6.9%	0.0%	7.1%
2012	48,943	89.2%	-5.9%	0.5%	8.1%
2013	49,747	89.0%	-6.0%	0.5%	8.2%
2014	51,143	87.9%	-5.6%	1.0%	9.2%
2015	53,958	86.0%	-5.8%	1.3%	9.8%
2016	55,669	87.1%	-6.1%	1.1%	9.6%
2017	57,750	86.7%	-5.8%	1.0%	9.2%
2018	60,530	86.3%	-5.7%	1.1%	9.6%

Source: Form 5500 health plan filings.

Note: Match rates based on all Form 5500 health plan filings. Participant increases based on the analysis sample only.

Financial Information from IRS Form 990 and Bloomberg

Several of our research questions seek to understand the relationship between a plan sponsor's financial health and the plan's funding mechanism. To address these questions, we matched Form 5500 health plan filings with two sources of financial information: Form 990 and Bloomberg corporate financial data.[6] We obtained plan sponsors' not-for-profit status from the Form 990 and some of their financial information from Bloomberg. This section describes our approach and the number of Form 5500 filers for which we achieved a statistical year 2018 match with Form 990 or Bloomberg records.

Not-for-Profit Status from Form 990

We determined whether health plan sponsors are for-profit or not-for-profit by matching Form 5500 filings to Form 990 filings. Not-for-profit plan sponsors are identified by the existence of a Form 990 filing from the plan sponsor. Tax-exempt organizations file a Form 990 annually with the IRS unless exempt from filing. The IRS makes select fields of Form 990 filings, including Employer Identification Numbers (EINs) and the organizations' names, publicly available on its website. If the corporate sponsor listed on a Form 5500 health plan filing was matched to a Form 990 filing, and the entity that filed a Form 990 was not itself a benefit plan, we identify the plan sponsor as a not-for-profit organization; otherwise, it is considered for-profit.[7]

The match is carried out by EIN and organization name. To reduce mismatches due to name spelling variations, we normalized names prior to matching, as discussed below. The analysis sample for statistical year 2018 includes 60,530 filings, of which 9,798 (16.2%) had sponsors that filed a Form 990 and were thus identified as not-for-profit. They accounted for 13.1 million participants, or 16.9% of the total under study.

Financial Metrics from Bloomberg

Our corporate financial information comes from Bloomberg, a provider of financial and other data for companies in the United States and elsewhere. Bloomberg culls Form 10-K filings and other sources to collect data on companies with public financial

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[6] Prior iterations of this report used corporate financial data from Capital IQ, which are very similar to Bloomberg data.

[7] Some welfare plans of for-profit corporations were themselves not-for-profit entities. For example, the Form 5500 plan sponsor could be listed as XYZ Corporation Employee Benefits Plan, a not-for-profit entity that filed a Form 990. In such cases, we ignored the Form 990 entry for XYZ Corporation Employee Benefits Plan and looked for XYZ Corporation among Form 990 filings to determine its for-profit status. To this end, we excluded Form 990 filings by Voluntary Employees' Beneficiary Associations (VEBAs), Teachers Retirement Fund Associations, Supplemental Unemployment Compensation Trusts or Plans, Employee-Funded Pension Trusts, Multiemployer Pension Plans, and any filer with names that include such labels as *HEALTH PLAN* or *WELFARE PLAN*. For-profit status thus refers to the plan sponsor, not to the plan itself.

statements, which generally include companies with publicly traded stock or bonds.[8] Our extract from its database contains information on the 2018 financial performance for about 9,300 companies with public financial information that are based in the United States or listed on a US stock exchange.

We extracted the following fields that capture company characteristics, financial strength, financial health, and financial size.

- Market capitalization: Total value of outstanding common stock as of the end of the year;
- Revenue: Total revenue net of sales returns and allowances during the year;
- Profit: Amount of profit the company made after paying all of its expenses during the year;
- Cash and cash equivalents: Amount of cash in vaults, deposits in banks, and short-term investments with maturities under 90 days as of the end of the year;
- Total debt: Short-term borrowings, long-term debt, and long-term capital leases as of the end of the year;
- Altman Z-Score: An index commonly used for predicting the probability that a firm will go into bankruptcy within two years. The lower the score, the greater the probability of insolvency; and
- Number of employees.

Matching Form 5500 Filings and Bloomberg Records

Form 5500 health plan filings and Bloomberg data both contain the names of sponsors/companies. However, in part because of spelling variations, the match rate on name alone is low. Both data sources also contain EINs, but that field is available for only 4% of Bloomberg records.

Bloomberg records may further identify companies through their Central Index Key (CIK), a number used by the U.S. Securities and Exchange Commission (SEC) to identify corporations and individuals who have filed a disclosure with the SEC. CIKs were available for 67% of Bloomberg records. SEC filings, electronically available from the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system, often include both a company's CIK and its EIN. Using an automated algorithm that extracts CIK-EIN combinations from SEC filings, we located EINs for 84% of Bloomberg records with non-missing CIKs.

Next, we defined clusters of EINs, CIKs, and company names that appeared to relate to the same company. For example, a company may have used two EINs, or an EIN may have been associated with multiple (similar) names. To improve the clustering, we normalized the company names and removed plan labels (e.g., ABC Incorporated Employee Benefit Trust is equivalent to ABC Inc.).

All related EINs, CIKs, and company names were mapped into a unique cluster. Finally, we matched Bloomberg records and Form 5500 health plan filings by cluster.

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[8] A Form 10-K is an annual financial report filed with the U.S. Securities and Exchange Commission.

Corporate fiscal years need not correspond to health plan reporting periods. In an effort to accurately match a 2018 Form 5500 health plan filing with its sponsor's 2018 financial information, we required that the end date of the fiscal year captured in Bloomberg and the end date of the Form 5500 plan year differed by no more than 183 days. Only if the closest fiscal and plan years differed by no more than 183 days did we consider this a match.

For example, a health plan sponsor could have a plan year from January 1 to December 31, but a fiscal year that ran from April 1 to March 31 of the next year. Under these circumstances, we would match the Form 5500 health plan filing ending December 31, 2018 with the Bloomberg financial information for fiscal year ending March 31, 2019.

Table 4 shows that we matched 955 plans with 5,000 or more participants (43.3%) and 4,261 plans (7.0%) overall.[9] This is the set of companies that appear in our matched analyses below. The 4,261 plans covered 30.5 million participants, or 39.3% of all participants in the Form 5500 health plan data.

Table 4. Form 5500 Health Plan Filings Matched with Financial Information, by Plan Size (2018)

	Plans			Participants		
Number of participants	Number	Percent	Match rate	Number (millions)	Percent	Match rate
Zero	85	2.0%	5.4%	0.0		
1–99	137	3.2%	2.2%	0.0	0.0%	3.3%
100–199	487	11.4%	2.5%	0.1	0.2%	2.6%
200–499	771	18.1%	4.3%	0.3	0.8%	4.5%
500–999	601	14.1%	8.9%	0.4	1.4%	9.1%
1,000–1,999	559	13.1%	14.3%	0.8	2.7%	14.8%
2,000–4,999	666	15.6%	23.4%	2.2	7.1%	24.4%
5,000+	955	22.4%	43.3%	26.7	87.8%	53.5%
Total	4,261	100.0%	7.0%	30.5	100.0%	39.3%

Source: Form 5500 health plan filings and Bloomberg data.
Percentages may not sum to 100% due to rounding.

The match rate increases with plan size, presumably because large plans are sponsored by large companies and larger companies are more likely to disclose financial information than smaller companies. The match rate among plans with 5,000 or more participants is 43.3%. Plans that were not matched include those of hospitals and universities without public financials, but also of U.S. operations of large international firms with public financials. We restricted Bloomberg records to companies that were based in the United States or listed on a US stock exchange. Mismatches could arise from differences between corporate names in Bloomberg (e.g., XYZ Holdings Inc) and sponsor names on Form 5500 filings (e.g., XYZ Inc). A

[9] While the overall match rate of 7.0% is a relatively small number, many companies that filed a Form 5500 are not represented in Bloomberg data because they may have no requirement to issue publicly available financial statements. Sponsors may be privately held, based overseas, or not-for-profit and without publicly issued bonds, or the plan may be a multiemployer or multiple-employer plan.

more inclusive name matching algorithm could boost the matching rate, but it also increases the risk of false matches which in turn could dilute any analysis results based on the matched subset of plans. Instead, we opted for a more conservative approach, with a smaller subset of matched plans but more reliable matches.

3. THE DEFINITION OF SELF-INSURANCE

The Form 5500 does not require plan sponsors to report the funding mechanism of health benefits with sufficient specificity for us to determine definitively whether plans that report using both a trust and insurance should be classified as self-insured, fully insured, or mixed-funded. This section describes how we assign funding mechanisms of individual plans for the purposes of this report.

The Definition of Funding Mechanism Is Driven by Certain Available Data

For the purpose of the analysis in this report, funding mechanism is assigned based on information in Form 5500 health plan filings. Plans are categorized as self-insured, fully insured, or mixed-funded. A mixed-funded plan contains both self-insured and fully insured components. For example, an employer may offer its employees a choice between a fully insured HMO option and a self-insured PPO option. If both plan components were reported on a single Form 5500 filing, the plan would be mixed-funded. In some cases, the data are incomplete or internally inconsistent. For example, while Schedules A are intended to report on insurance contracts, some plans attached a Schedule A for a contract that appears to be for administrative services only (ASO) rather than for insurance. Given these limitations, the classification in this report should not be interpreted as an official or legal definition.

The classification of funding mechanism is based on data from the main Form 5500, Form 5500-SF, Schedule A, and Schedule H/I, when available. As depicted in Figure 2 below, there are multiple ways in which a plan may be classified as self-insured, mixed-funded, or fully insured. Two important issues are evidence of an external health insurance contract (on a Schedule A) and of a plan trust (on a Schedule H or I).

> *Evidence of Health Insurance*. Information on insurance contracts needs to be reported on a Schedule A. Many Schedules A relate to dental, vision, disability, or other non-health benefits. Only Schedules A that specify “Health (other than dental or vision)” benefits or reflect an “HMO contract,” “PPO contract,” or “Indemnity contract” are considered evidence of health insurance. However, some health benefits—such as business travel insurance with limited emergency medical care benefits—may be outside the focus of the ACA, and some Schedules A may have been filed in error. The algorithm rejects as evidence of health insurance any Schedule A with per capita annualized premiums that were less than 30% of the average cost of single health coverage in the United States, as documented by the annual *Employer*

Health Benefits Annual Survey ("KFF/HRET Survey").[10] In 2018, the average cost for single coverage was $6,896, so the algorithm requires annualized premiums to be at least 30% x $6,896 = $2,069 per covered person.[11]

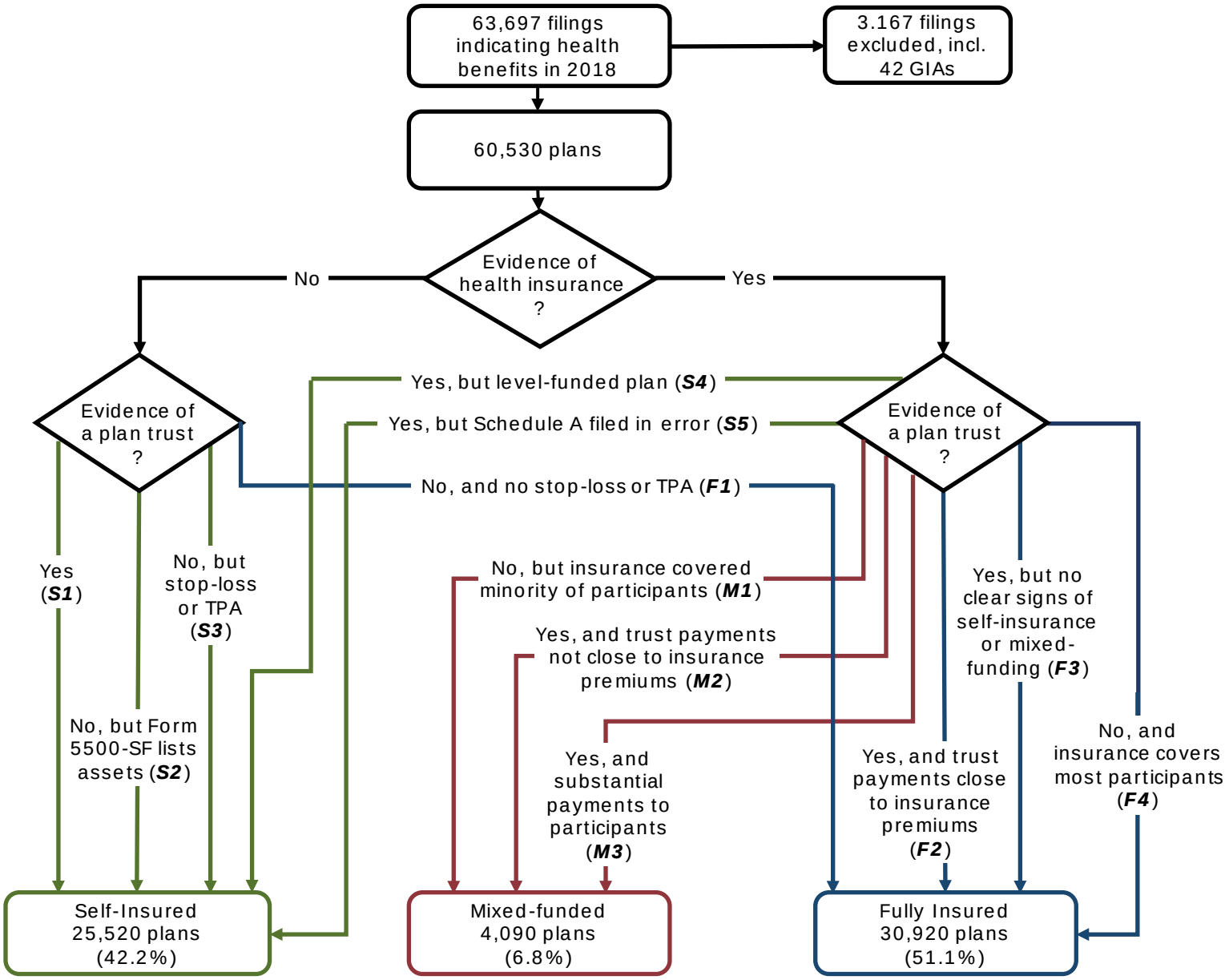
Evidence of a Trust. Information on a plan's trust, if any, needs to be reported on a Schedule H or I. In addition to assets and liabilities, the Schedules H and I list contributions and expenses (such as benefit payments directly to participants and payments to insurance carriers). Some plans attached a Schedule H or I that was blank (not common since the introduction of electronic filing) or reported on compliance issues only. The algorithm accepts as evidence of a trust only Schedules H/I with at least some information on assets, liabilities, income, or expenses.

As shown in Figure 2, a total of 63,697 Form 5500 or 5500-SF filings reported health benefits in 2018. However, 3,167 filings were excluded from the analysis, mostly because the plan submitted multiple filings, was exempt from filing, likely did not sponsor health benefits as targeted by the ACA, or was submitted by a GIA (see Section 5 for more details).

The remaining 60,530 plans in 2018 are first categorized by whether they provided evidence of a health insurance contract or a plan trust. Depending on detailed information on the main Form 5500, Form 5500-SF, Schedules A, and Schedule H/I, where available, plans are classified by funding mechanism.

[10] *Employer Health Benefits, 2018 Annual Survey.* Kaiser Family Foundation and Health Research & Educational Trust. Available at https://kff.org/health-costs/report/2018-employer-health-benefits-survey.
[11] The average cost of single coverage rose from $4,824 in 2009 to $6,896 in 2018.

Figure 2. Classification of Plans by Funding Mechanism



Percentages may not sum to 100% due to rounding.

The branches in Figure 2 are labeled and described in detail in the sections below. The Technical Appendix lists the data fields that the algorithm uses.

Self-Insured Plans

S1: No Evidence of Health Insurance; Evidence of a Plan Trust

All plans in the analysis reported sponsoring health benefits. If there is no evidence of health insurance, and financial information for a plan trust is provided, then the plan is classified as self-insured.

S2: Short Form Filers with Fewer Than 100 Participants or with Assets

Some plans with fewer than approximately 100 participants at the beginning of the year may file a Form 5500-SF. Such filings are not required to attach any schedules, and any financial information would be entered on the Form 5500-SF itself.[12] Plans that filed a Form 5500-SF and reported fewer than 100 participants at the beginning of the year are presumed to be self-insured. Further, if they reported between 100 and 120 participants at the beginning of the year and listed plan assets, they too are classified as self-insured.

S3: No Evidence of Health Insurance or of a Plan Trust; Indicators of Self-Insurance

Consider plans that provided evidence of neither health insurance nor a plan trust. If the funding or benefit arrangement was through a trust or from general assets, then the plan is classified as self-insured. Also, if the only Schedules A attached to the filing were for stop-loss coverage or non-health benefits, or a Schedule A indicated third party administrator services rather than insurance,[13] then the plan is classified as self-insured.

S4: Evidence of Health Insurance and of a Plan Trust; Financial Information Indicates Self-Insurance

Consider plans that provided evidence of health insurance and of a plan trust that listed payments both directly to participants and to insurance carriers. Depending on the magnitude of certain trust payments and insurance premiums, such plans may be self-insured, mixed-funded, or fully insured. The algorithm sequentially checks for various scenarios, including the possibility that the Schedule A reflects a level-funded plan contract. In such cases, the plans are classified as self-insured.

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[12] Small plans that filed a Form 5500-SF without financial information are presumed to be exempt from filing and excluded from the analysis.
[13] Some plans attached a Schedule A for administrative services only despite directives to the contrary (2018 Instructions for Form 5500).

S5: Evidence of Health Insurance, but Schedule A May Have Been Filed in Error

Consider again plans that provided evidence of health insurance and of a plan trust that listed payments both directly to participants and to insurance carriers. In addition to the possibility discussed under branch *S4*, the Schedule A may have been filed in error. Having excluded certain other scenarios, if Schedule A reported experience-rated charges but no corresponding premiums, it presumably did not reflect an insurance contract. The Schedule A is then assumed to have been filed in error and the plan is classified as self-insured.

Mixed-funded Plans

M1: Evidence of Health Insurance; No Evidence of a Plan Trust; Funding through Trust or General Assets and Insurance Covered a Minority of Participants

In principle, when a plan provided evidence of health insurance and not of a plan trust, it is classified as fully insured. However, it may additionally cover some participants in a self-insured plan component, namely from general assets or through a trust (for which no information is provided). The algorithm first considers funding and benefit arrangements. If both arrangements involve insurance only, the plan is classified as fully insured (discussed below under branch *F4*). However, if the funding or benefit arrangements mention a trust or general assets, and fewer than one-half of plan participants (indicated on the main Form 5500) are covered by health insurance (indicated on Schedule A), the plan is classified as mixed-funded.

M2: Evidence of Health Insurance and of a Plan Trust; Trust Payments not Close to Insurance Premiums

Consider plans that provided evidence of both health insurance and of a plan trust. The trust may serve to funnel insurance premiums to insurance carriers, in which case it is generally classified as fully insured (discussed below under branch *F3*). However, if trust payments to insurance carriers differ by more than 20% from insurance premiums, the trust presumably funds self-insured benefits, and the plan is classified as mixed-funded.

M3: Evidence of Health Insurance and of a Plan Trust; Substantial Payments Directly to Participants

Consider again plans that provided evidence of health insurance and of a plan trust that listed payments both directly to participants and to insurance carriers. These plans may be classified as mixed-funded if payments directly to participants were substantial enough to plausibly reflect health benefit payments. The monetary criterion is the same as for determining whether a

Schedule A plausibly reflects health insurance (above $2,069 per participant per year in 2018; see above).[14]

Fully Insured Plans

F1: No Evidence of Health Insurance or of a Plan Trust; No Indicators of Self-Insurance

Some plans provided evidence of neither health insurance nor a plan trust. If such plans meet the criteria discussed above under branch *S3*, they are classified as self-insured. Otherwise, they are classified as fully insured.

F2: Evidence of Health Insurance and of a Plan Trust; Trust Payments Close to Insurance Premiums

Some fully insured plans use a trust to funnel premiums to insurance carriers. Oftentimes, this applies to plans with multiple contributing parties, such as multiple-employer and multiemployer plans. If a plan provided evidence of both health insurance and a plan trust, and trust payments to insurance carriers were within 20% of insurance premiums, the plan is classified as fully insured.[15] An exception exists in the case of substantial trust payments directly to participants; see branch *M3*.

F3: Evidence of Health Insurance and of a Plan Trust; No Clear Indicators of Self-Insurance or Mixed-Funding

Consider again plans that provided evidence of health insurance and of a plan trust that listed payments both directly to participants and to insurance carriers. Trust payments and insurance premiums may point to self-insurance (discussed above under branches *S4* and *S5*) or to mixed-funding (discussed above under branch *M3*). In the absence of clear indicators of self-insurance or mixed-funding, such plans are classified as fully insured.

F4: Evidence of Health Insurance; No Evidence of a Plan Trust; Funding through Insurance Only or Insurance Covered Most Participants

In principle, when a plan provided evidence of health insurance but not of a trust, it is classified as fully insured. Branch *M1* allows for the possibility that the plan additionally covers some participants in a self-insured plan component. If the plan does not meet the criteria specified under branch *M1*, it is classified as fully insured.

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[14] The per-participant payment calculation may understate the actual average payment to participants in the self-insured component of the plan because it is based on the number of participants as reported on the main Form 5500, which likely overstates the number of participants in the self-insured component of the plan.

[15] To accommodate scenarios in which non-health insurance premiums are paid outside of the trust, the algorithm checks all insurance premiums separately from all health insurance premiums. If trust payments are within 20% of either amount, branch *F3* applies.

In total, 25,520 plans (42.2%) were identified as self-insured, 4,090 plans (6.8%) as mixed-funded, and 30,920 plans (51.1%) as fully insured. While this approach is subject to some data quality issues (further discussed below), we believe it results in a meaningful characterization of health plans' funding mechanism.

Issues in Defining Funding Mechanism

The information on Form 5500 may be incomplete, ambiguous, or inconsistent for some plans with respect to the funding mechanism. Some of the issues affecting the funding mechanism definition are as follows:

- An employer may set up a subsidiary that acts as an in-house or "captive" insurance company or rent an outside "captive" to offer health insurance. These "captive" insurance companies are subject to state regulations regarding insurance companies. Plans purchasing insurance from a captive insurance company would file a Schedule A, which does not require disclosing that the insurance company is captive. In the classification, such plans would thus be considered fully insured, even though the employer group to which they belong may incur a risk substantially similar to that of a self-insured plan. Since nothing on the Form 5500 permits the identification of captive insurance companies, we were not able to quantify how frequently this issue arises.
- As explained above, 6.8% of Form 5500 filing health plans contained both externally insured and self-insured health components in 2018. While the distinction may be clear conceptually, Form 5500 data limitations imply that the health plan as a whole must be categorized as mixed-funded. The issue arises in part because Forms 5500 are required for each plan, not for each type of benefit offered under a plan. Where a plan provides multiple types of welfare benefits or multiple types of health benefit options, it is not always possible to attribute responses to the health benefit component(s) of the filer's welfare plan. Also, a plan may indicate funding benefits through insurance contracts and from general assets without specifying which plan components are funded in either way. Separately, Form 5500 data limitations arise from the fact that the Form 5500 does not ask details about self-insured plan components. At the participant/policy level, however, a benefit is either self-insured or fully insured.
- As noted above, plans may offer self-insured health benefits to some participants and fully insured benefits to others, but the Form 5500 provides little insight about the number of participants in the self-insured component. Reflecting such scenarios, plans may also be classified as mixed-funded if fewer than one-half of plan participants are covered by health insurance contracts. The comparison is less than perfect. First, the number of "persons covered" by insurance contracts, as reported on Schedule A, is inclusive of dependents,[16] whereas the definition of "participant" for Form 5500 explicitly excludes dependents (see 2018 Instructions for Form 5500). Second, because

[16] Although the Schedule A specifically calls for filers to enter the approximate number of persons covered, it is our understanding that there may be some filers who enter only the number of participants, even if there are more covered persons, e.g., due to family coverage.

the total number of persons whose benefits are provided through the insurance policy or contract listed on the Schedule A is reported, where plans that provide multiple types of benefits and participants select some, but not all of the insured benefits offered, not all reported participants may in fact be participants in the health benefits component of the plan.

- The classification may not recognize mixed-funding where only "carve-out services" are covered by insurance. For example, a plan may purchase insurance coverage for mental health benefits and self-insure other health benefits. Its Form 5500 filing would include a Schedule A with details of the mental health carve-out but might list the benefits provided under the contract as "Health (other than dental or vision)" because there is no separate category for "mental health" benefits on Schedule A, as there is for "Dental," "Vision," and "Prescription drugs."
- Among plans that reported a funding or benefit arrangement through insurance, 0.5% did not file a Schedule A with insurance contract details. Another 0.7% filed no Schedule A for health benefits but one or more Schedules A without listing the type of benefit that the insurance contract covered. In such cases, it was assumed that the insurance contract provided health benefits.

For more details on data anomalies that stood in the way of unambiguous funding mechanism classifications, see the report on *Strengths and Limitations of Form 5500 Filings for Determining the Funding Mechanism of Employer-Provided Group Health Plans.*[17]

Stop-Loss Insurance

While sponsors of self-insured plans generally bear the financial risks of health benefits and claims, some self-insured plans purchase insurance against particularly large losses (catastrophic or "stop-loss" insurance). Stop-loss coverage mitigates financial risks, but a plan that has no insurance for health benefits other than stop loss insurance is still considered self-insured.

4. ANALYSIS

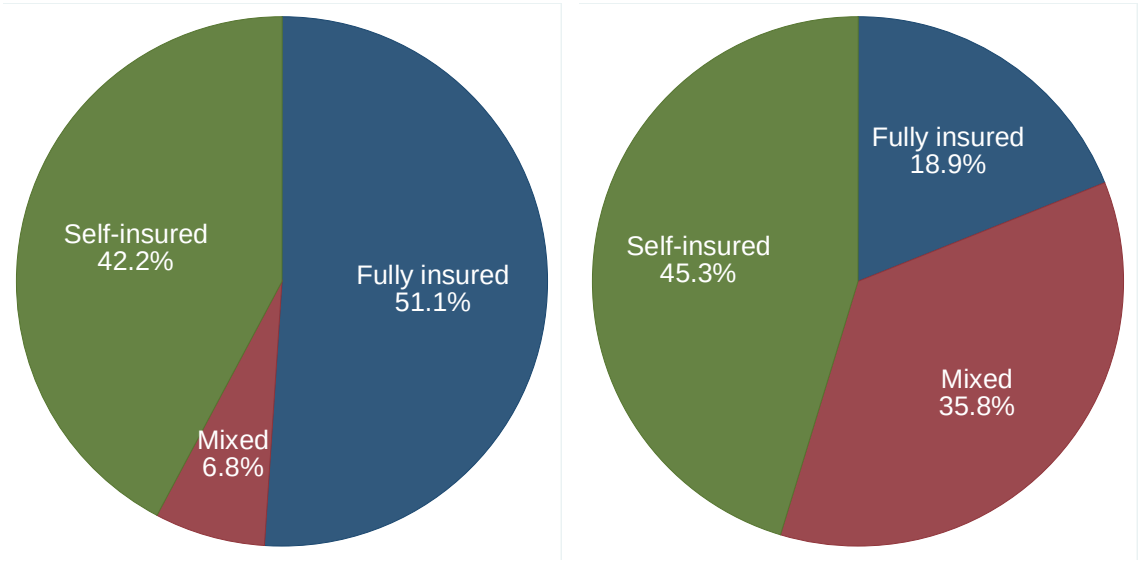
This section documents the findings of our analyses of group health plans. (For GIAs, see Section 5.) We first present the Form 5500 distribution of funding mechanism by plan and plan sponsor characteristics. Next, we follow plan filings over time and document the rate at which plans have switched funding mechanisms. Next, we discuss stop-loss coverage of self-insured and mixed-funded plans. Finally, we turn to health plan sponsors for which external financial information was available and present summary statistics for these sponsors by plan funding mechanism.

[17] Available at https://www.dol.gov/sites/default/files/ebsa/researchers/analysis/health-and-welfare/strengths-and-limitations-of-form-5500-filings-for-determining-the-funding-mechanism-of-employer-provided-group-health-plans.pdf.

Funding Mechanisms for Plans and Participants

For statistical year 2018, Figure 3 shows the overall distribution of funding mechanisms among the 60,530 health plans in the analysis: 51.1% of plans were fully insured, 42.2% were self-insured, and 6.8% were mixed-funded. As shown further below, funding varies by plan size, so the funding distribution across participants is quite different than it is across plans: 18.9% of the 77.6 million participants were in fully insured plans, 45.3% were in self-insured plans, and 35.8% were in mixed-funded plans.

Figure 3. Distribution of Funding Mechanism (2018)



Percentages may not sum to 100% due to rounding.

To put our analysis in context, consider recent findings on self-insurance according to two external sources. First, the Kaiser Family Foundation and Health Research & Educational Trust annually gather detailed information on employer-provided health benefits, including their funding status, in *Employer Health Benefits Annual Survey* ("KFF/HRET Survey").[18] It found that 61% of covered workers in firms with three or more employees were in partially or completely self-funded plans in 2018.[19] Our findings are not directly comparable because our analysis covers only a small subset of plans with fewer than 100 participants and because as many as 35.8% of plan participants are in mixed-funded plans. The split of mixed-funded participants into fully insured or self-insured plan components is unknown; if they were split evenly, the fraction of participants in self-insured plans (or the self-insured component of a mixed-funded plan) would be 45.3% + ½ x 35.8% = 63.2%, compared with 61% in

[18] *Employer Health Benefits, 2018 Annual Survey.* Kaiser Family Foundation and Health Research & Educational Trust. Available at http://kff.org/health-costs/report/2018-employer-health-benefits-survey.

[19] The KFF/HRET survey defines covered workers as "employees receiving coverage from their employer."

the 2018 KFF/HRET Survey. Given the limitations of Form 5500 health plan filings, our results are therefore broadly consistent with those found in the 2018 KFF/HRET Survey.

Second, similar to the KFF/HRET Survey, the Insurance Component of the Medical Expenditure Panel Survey (MEPS-IC) annually surveys employers about the health benefit plans they offer.[20] Again, the findings are not strictly comparable, in part because the unit of observation is an establishment in the MEPS-IC and a plan in the Form 5500 data and in part because size is measured in covered employees in the MEPS-IC and plan participants in the Form 5500. That said, the results are similar. According to the MEPS-IC, 35.1% of establishments with 100–999 employees self-insured at least one plan in 2018, whereas we found that 37.5% of plans with 100–999 participants were self-insured or mixed-funded (calculated from the numbers underlying Table 5 below). Weighted by employees (MEPS-IC) or participants (Form 5500), the shares are 34.7% and 45.8%, respectively. For larger establishments (or plans) with 1,000 or more employees (or participants), 81.6% self-insured at least one plan, according to the MEPS-IC, and 81.4% were self-insured or mixed-funded according to Form 5500 filings. Weighted by employees (MEPS-IC) or participants (Form 5500), the shares are 82.2% and 88.3%, respectively.

Funding Mechanisms by Plan Size

Figure 4 shows the distribution of funding mechanism by plan size for health plans in 2018. Most small plans are identified as self-insured in our study, but this is presumably due to the select nature of small plans in our analysis. Group health plans with fewer than 100 participants that are not MEWAs generally are required to file a Form 5500 only if they use a trust or separately maintained fund to hold plan assets or act as a conduit for the transfer of plan assets, which is often associated with self-insurance.[21,22] Most small plans are not required to file a Form 5500 and, therefore, are not included in this analysis.[23] Apart from plans with fewer than 100 participants, the likelihood that a plan is self-insured generally increases with plan size. The pattern is particularly pronounced for mixed-funded plans, presumably because larger plans may offer multiple plan options, some of which are fully insured and some of which are self-insured. The share of plans with 5,000 or more participants that are self-insured or mixed-funded is 89.1%, compared with 27.2% among plans with 100–199 participants.

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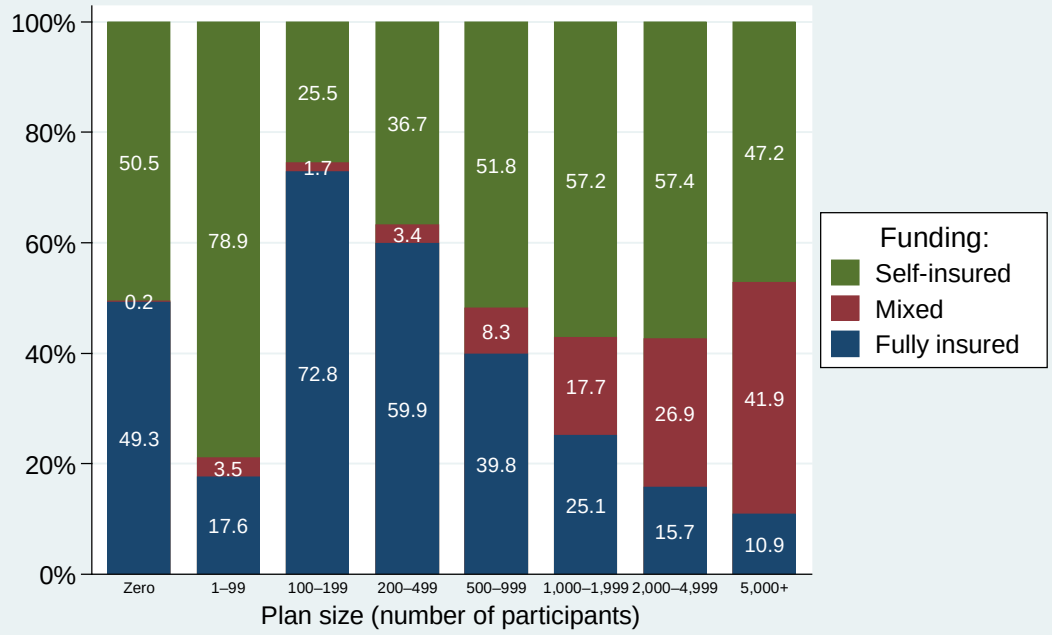
[20] *Medical Expenditure Panel Survey Insurance Component Chartbook 2018*. Rockville, MD: Agency for Healthcare Research and Quality, September 2019. AHRQ Publication No. 19-0077. Available at https://meps.ahrq.gov/data_files/publications/cb23/cb23.pdf.

[21] Self-insured plans with fewer than 100 participants, without trust assets, and that are not MEWAs required to file the Form M-1 are generally not required to file a Form 5500 and are therefore not in the analysis. These may include so-called level-funded plans.

[22] Inclusion into the analysis is based on participants at the beginning of the plan year, whereas Figure 4 distinguishes plans based on their number of participants at the end of the year. Some plans with fewer than 100 participants at the beginning of the year may therefore be included in categories with 100 or more participants at the end of the year, and vice versa.

[23] See footnote 1 on page 2.

Figure 4. Distribution of Funding Mechanism, by Plan Size (2018)



Source: Form 5500 filings.
Percentages may not sum to 100% due to rounding.

Table 5 shows the numbers underlying Figure 4. It also shows the participant-weighted distribution of funding mechanism by plan size, which is generally similar to the plan-weighted distribution.

Table 5. Distribution of Funding Mechanism, by Plan Size (2018)

Participants	Plans			Participants		
in plan	Fully insured	Mixed	Self-insured	Fully insured	Mixed	Self-insured
Zero	49.3%	0.2%	50.5%			
1–99	17.6%	3.5%	78.9%	40.7%	4.3%	54.9%
100–199	72.8%	1.7%	25.5%	72.5%	1.7%	25.8%
200–499	59.9%	3.4%	36.7%	58.1%	3.7%	38.2%
500–999	39.8%	8.3%	51.8%	38.8%	8.6%	52.6%
1,000–1,999	25.1%	17.7%	57.2%	24.6%	18.5%	57.0%
2,000–4,999	15.7%	26.9%	57.4%	15.0%	28.0%	57.0%
5,000+	10.9%	41.9%	47.2%	9.7%	47.3%	43.0%
All	51.1%	6.8%	42.2%	18.9%	35.8%	45.3%

Source: Form 5500 health plan filings.
Percentages may not sum to 100% due to rounding.

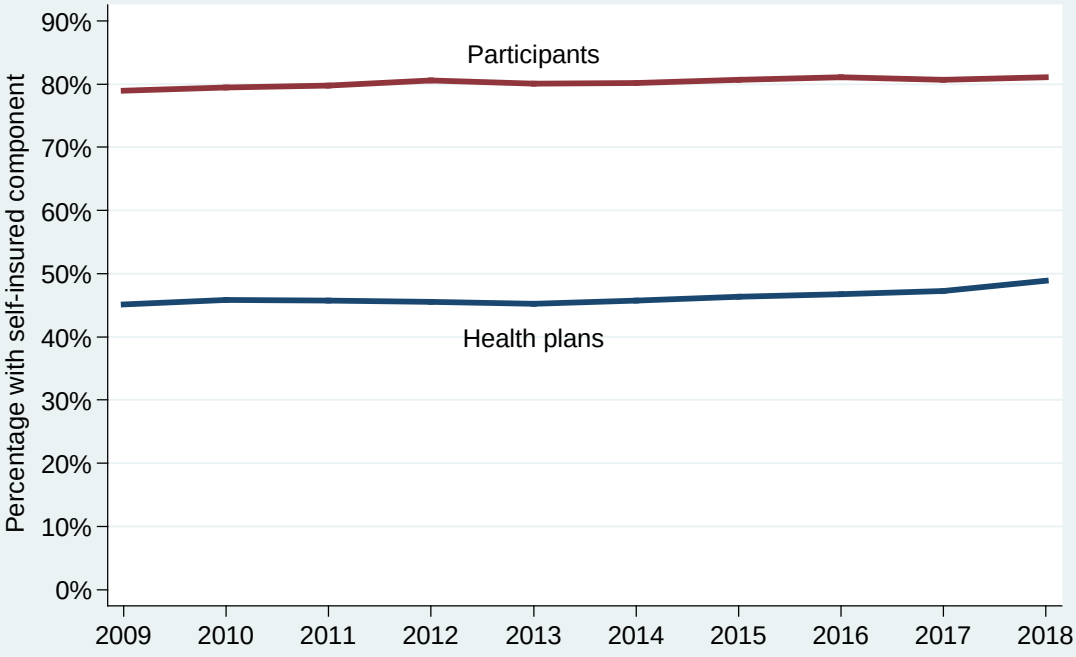
The finding that larger plans are more likely to adopt mixed-funding or self-insurance is consistent with the 2018 KFF/HRET Survey. That study found that 13% of covered workers at firms with 3–199 employees were covered by self-insured plans in 2018, compared with 91% of covered workers at firms with 5,000 or more employees.

Funding Mechanisms by Year

Figure 5 shows the funding mechanism distribution for health plans by statistical year for 2009–2018; see Table 6 and Table 7 for the underlying percentages, plan counts, and participant counts. The percentage of plans that were self-insured or mixed-funded (i.e., plans with a self-insured component) was approximately flat around 45% from 2009 through 2013 and then gradually increased to 48.9% in 2018. Between 2017 and 2018, the fraction of plans with a self-insured component rose by 1.6 percentage points. Most of this increase was driven by a rise in the number of self-insured plans with fewer than 100 participants and their selective inclusion in the analysis (see page 18). Among plans with 100 or more participants, the fraction with a self-insured component rose by 0.6 percentage points between 2017 and 2018 (not shown).

The share of participants in health plans that self-insured or were mixed-funded increased from 79.0% in 2009 to 80.6% in 2012, and remained approximately flat thereafter, arriving at 81.1% in 2018. In comparison, the KFF/HRET Survey documented a similar increase toward self-insurance from 2009 to 2013 and, apart from a one-year deviation in 2015, an approximately flat share thereafter. Thus, the overall trend toward self-insurance among participants—which began well before 2009—appears to have flattened out, based on findings from both this study and the KFF/HRET study.

Figure 5. Distribution of Funding Mechanism, by Statistical Year



Source: Form 5500 filings.

Table 6. Distribution of Funding Mechanism, by Statistical Year

Statistical	Plans			Participants		
year	Fully insured	Mixed	Self-insured	Fully insured	Mixed	Self-insured
2009	54.9%	7.0%	38.1%	21.0%	34.9%	44.1%
2010	54.1%	6.9%	39.0%	20.5%	35.3%	44.2%
2011	54.3%	7.0%	38.7%	20.3%	34.9%	44.9%
2012	54.5%	6.9%	38.6%	19.4%	34.8%	45.8%
2013	54.8%	7.0%	38.2%	20.0%	35.2%	44.9%
2014	54.3%	6.9%	38.9%	19.8%	33.6%	46.6%
2015	53.6%	7.0%	39.4%	19.4%	34.0%	46.7%
2016	53.2%	6.8%	40.0%	18.9%	34.9%	46.2%
2017	52.7%	6.5%	40.8%	19.3%	35.0%	45.7%
2018	51.1%	6.8%	42.2%	18.9%	35.8%	45.3%

Source: Form 5500 health plan filings.
Percentages may not sum to 100% due to rounding.

Table 7. Plans and Participants by Funding Mechanism, by Statistical Year

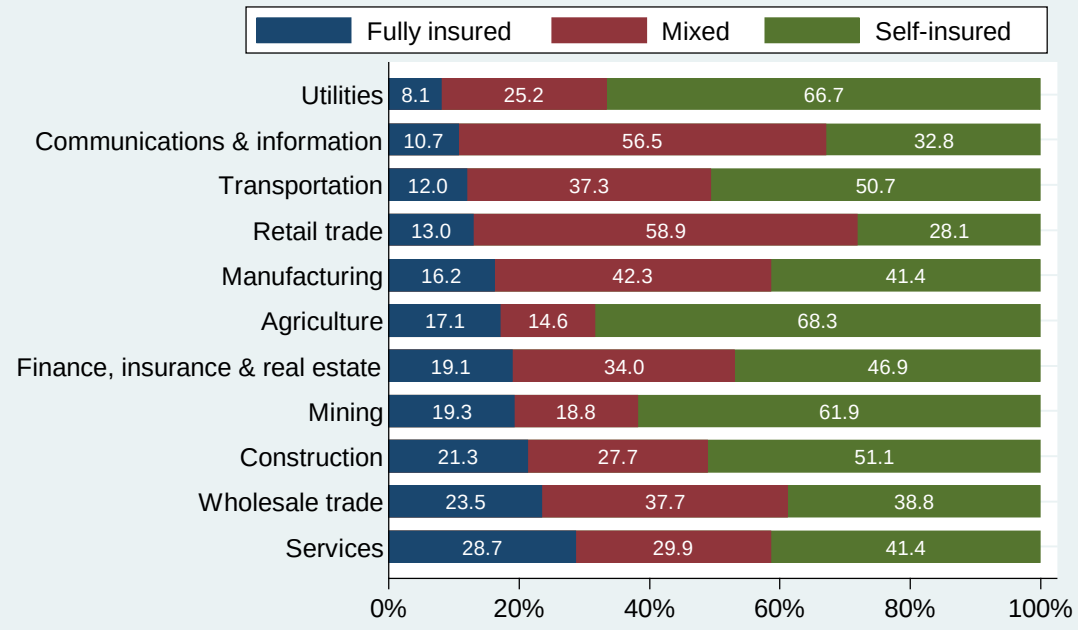
Statistical	Plans			Participants (millions)		
year	Fully insured	Mixed	Self-insured	Fully insured	Mixed	Self-insured
2009	25,598	3,252	17,774	13.9	23.1	29.3
2010	26,471	3,349	19,067	13.9	23.9	29.9
2011	26,269	3,402	18,736	13.8	23.8	30.6
2012	26,665	3,389	18,889	13.4	24.0	31.5
2013	27,264	3,500	18,983	13.8	24.4	31.1
2014	27,763	3,510	19,870	14.0	23.7	32.9
2015	28,931	3,774	21,253	14.0	24.6	33.8
2016	29,638	3,761	22,270	14.0	25.9	34.3
2017	30,444	3,767	23,539	14.6	26.4	34.4
2018	30,920	4,090	25,520	14.7	27.8	35.1

Source: Form 5500 health plan filings.

Funding Mechanisms by Industry

Figure 6 shows the participant-weighted distribution of funding mechanism by industry, as identified by the business code provided on Form 5500 filings. Participants in the utilities, communications & information, and transportation sectors are the most likely to be in a mixed-funded or self-insured plan, whereas those in the services and wholesale trade industries are the most likely to be in a fully insured plan. Some of the relationship between funding mechanism and industry may be due to variation across industries in health plan sizes, but differences across sectors remain after controlling for plan size. For example, among 11 industries, the utilities sector ranks first in self-insurance and fourth in plan size (measured by the average number of plan participants), whereas the services sector ranks last in self-insurance and seventh in plan size.

Figure 6. Participant-Weighted Distribution of Funding Mechanism, by Industry (2018)



Source: Form 5500 filings.
Percentages may not sum to 100% due to rounding.

Funding Mechanisms over the Life Cycle of Plans

Figure 5 above shows the aggregate trends in self-funding at the plan and participant levels over time. It does not show how often plans switch into or out of self-funding. To gain a fuller understanding of such movements, we now turn to funding mechanisms over the life cycle of plans.[24]

We distinguish between plans at the beginning of their life, at the end of their life, and during the years in between. For example, it is unclear whether the observed trends in self-funding were due to the funding mix of new plans, the funding mix of terminating plans, net switches among established plans, or a combination of factors. The analysis is somewhat hampered by the fact that some Form 5500 filings contain incomplete information about the beginning and end of plans' lives. We distinguish plans as follows:

- *New*—We identify the beginning of a plan's life cycle based on the Form 5500's "first return/report" check box and the plan's effective date. A plan is

[24] For the life cycle perspective in this section, we follow filings of individual plans over time. Plans' life cycle status is based on all filings, including voluntary filings and prior filings in the same year. A plan is uniquely identified by the EIN of its sponsor and a plan number (PN). Some EIN/PN combinations appear to have been used for more than one plan. Unlike in prior reports, the analysis excludes all filings of such EIN/PN combinations.

considered new if it checked the "first return/report" box and the start of the reporting period differed by no more than two years from the plan's effective date.[25]

- *Cease filing*—We attempt to capture the end of a plan's life cycle in two ways. First, a plan may have indicated on its Form 5500 that it is terminating, namely by checking the "final return/report" box, by reporting a resolution to terminate the plan, or by documenting that all assets were transferred out of the plan.[26] Second, a plan may stop filing a Form 5500 without the required prior indication. Doing so does not necessarily imply that the plan terminated; it may be non-compliant or it may have shrunk and become exempt but incorrectly neglected to note this by writing "4R" on Line 8b of the Form 5500. To mitigate this issue, we ignore gaps in filings. Recognizing that some plans in this category have in fact not reached the end of their life cycle, we label them as plans that "ceased filing."[27]
- *Established*—This category captures the middle of a plan's life cycle. Plans that were neither "new" nor "ceased filing" are labeled "established" plans.

Table 8 shows the funding distribution of new plans in 2018. Of the 4,420 new plans, 42.7% were fully insured, 3.3% mixed-funded, and 53.9% self-insured. The new plans covered 1.22 million participants of whom 35.9% were in a fully insured plan, 22.2% in a mixed-funded plan, and 42.0% in a self-insured plan. The distribution of funding mechanism by plan size is similar for new plans (not shown) as for all plans (see Table 5).

Table 8. Funding Distribution of New Plans (2018)

	Plans		Participants	
	Number	Percent	Number (millions)	Percent
Fully insured	1,888	42.7%	0.44	35.9%
Mixed	148	3.3%	0.27	22.2%
Self-insured	2,384	53.9%	0.51	42.0%
Total	4,420	100.0%	1.22	100.0%

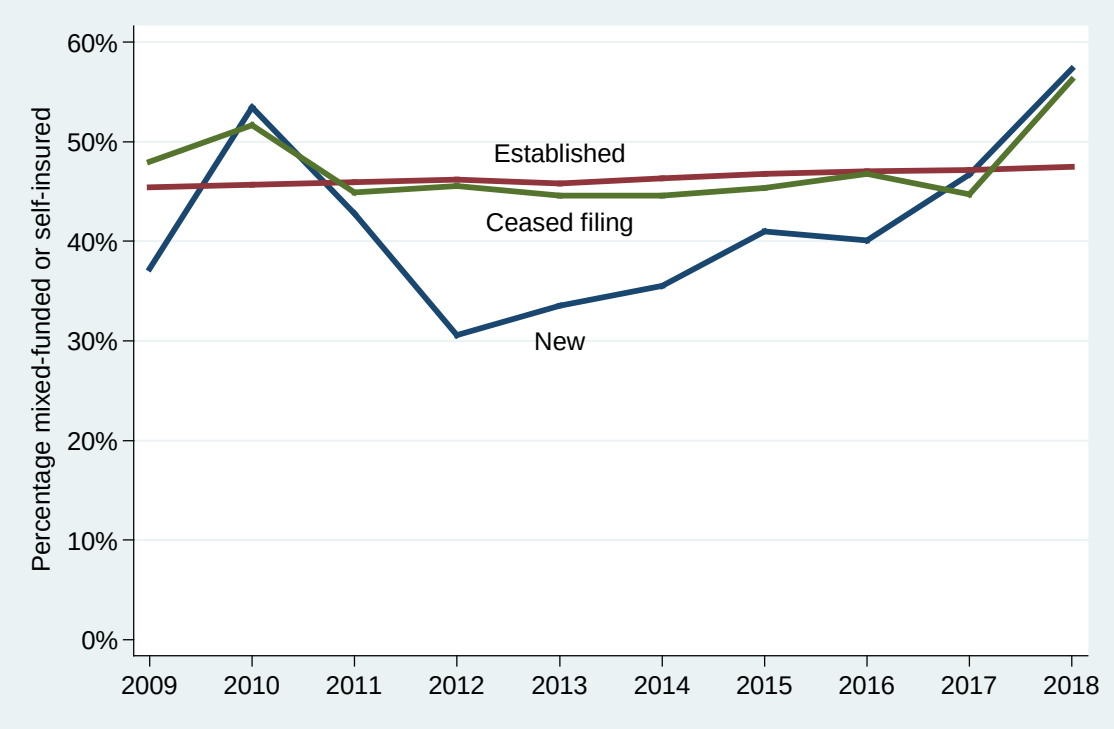
Source: Form 5500 health plan filings.
Percentages may not sum to 100% due to rounding.

We will discuss plan-level and participant-level trends separately. Starting with plan-level developments, Figure 7 shows the mixed-funded or self-insured share of new plans, established plans, and plans that ceased filing. (Since most plans are established, the overall share is very close to the share among established plans.)

[25] Some plans never checked the "first return/report" box, or not until later in their life cycle. If the box was not checked until the, say, fourth filing, we exclude the earlier filings from the analysis. If the box was checked multiple times, we identify the plan as "new" only the first time.
[26] Some plans repeatedly indicated terminating but continued submitting filings. We ignore indications of terminating if the plan continued filing in subsequent years. Separately, plans that reported termination on their initial filing were included in both the "new" and "ceased filing" categories. (See Figure 10 below.)
[27] In terms of timing, if a plan indicated on its 2013 filing that it was terminating, we consider it as having ceased filing in 2013. If a plan submitted filings through 2013 but not in any later year, we consider it as having ceased filing in 2014.

Both new plans and plans that ceased filing were more often self-insured than established plans in 2018, and because new plans outnumbered plans that ceased filing, the net effect was an increase in self-insurance and a decrease in full insurance—see Table 6.

Figure 7. Percentage Mixed-Funded or Self-Insured among New Plans, Established Plans, and Plans That Ceased Filing, by Statistical Year



The funding mix of new plans has changed over time. In most years prior to 2018, new plans tended to be more often fully insured than other plans, but many self-insured small plans that participate in a MEWA (but are not MEWAs themselves) started filing a Form 5500 or 5500-SF in recent years. We did not locate any such plans through 2015, but identified 65 in 2016, 774 in 2017 (of which 710 new plans), and 2,075 in 2018 (of which 1,303 new plans). All had fewer than 100 participants but were required to file a Form 5500 or 5500-SF because they held assets in a trust. These small plans that participate in a MEWA were all self-insured or mixed-funded and accounted for an increasing portion of new plans (29% in 2018). As shown in Table 7 above, the number of plans that were self-insured or mixed-funded increased by 2,304 from 27,306 in 2017 to 29,610 in 2018. Most of that increase consisted of the 1,303 plans that entered the analysis in 2018 and participate in a MEWA.[28]

[28] The fraction of new plans that were self-insured or mixed-funded was also elevated in 2010, which was related to a single administrator who submitted more than 800 Form 5500 filings for small, self-insured plans in 2010. None of these filed a Form 5500 or 5500-SF in any following year.

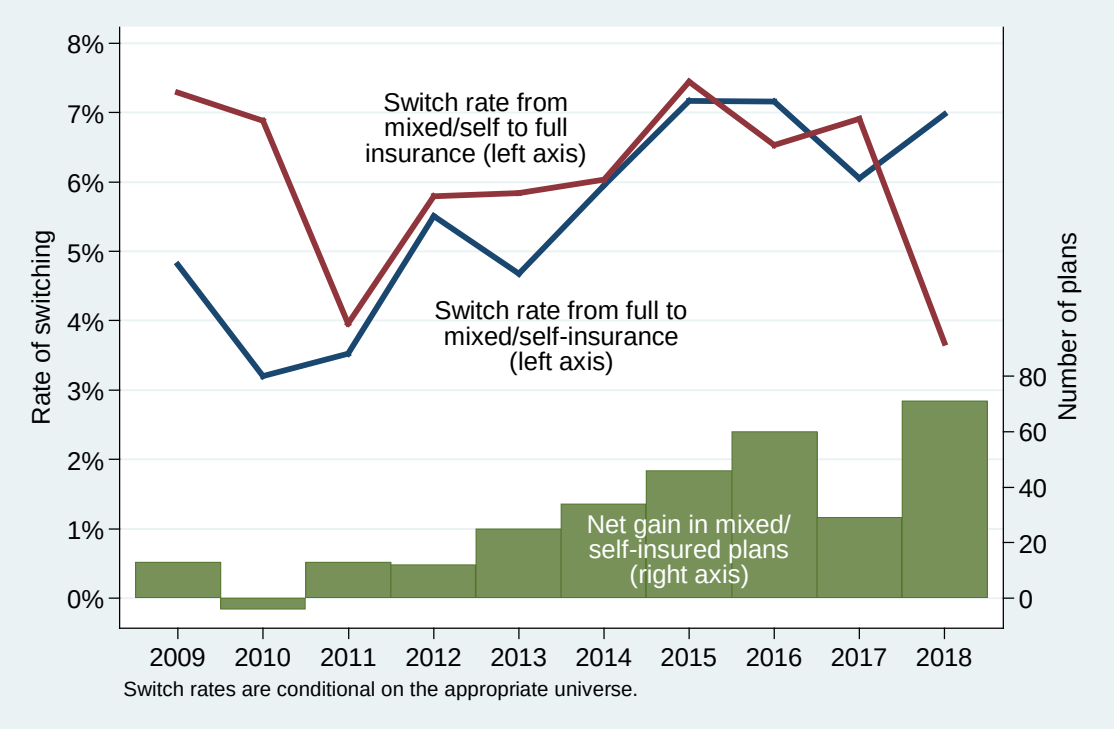
We emphasize that plan-level trends may be affected by the number of self-insured plans with fewer than 100 participants and their selective inclusion in the analysis. In particular, it is unclear whether newly entering plans that participate in a MEWA are truly new. They may have existed previously as fully insured plans, exempt from filing a Form 5500 like millions of other small plans. Participant-level trends are far less sensitive to the inclusion of small plans. For example, the 2,075 plans that participate in a MEWA in 2018 covered fewer than 16,000 participants, or just 0.02% of the total under analysis.

Changes in Mixed/Self-Insurance Due to Plans Switching Funding Mechanism

This section discusses funding mechanism switch rates among new and established plans and the resulting flows of plans toward or away from self-insurance.

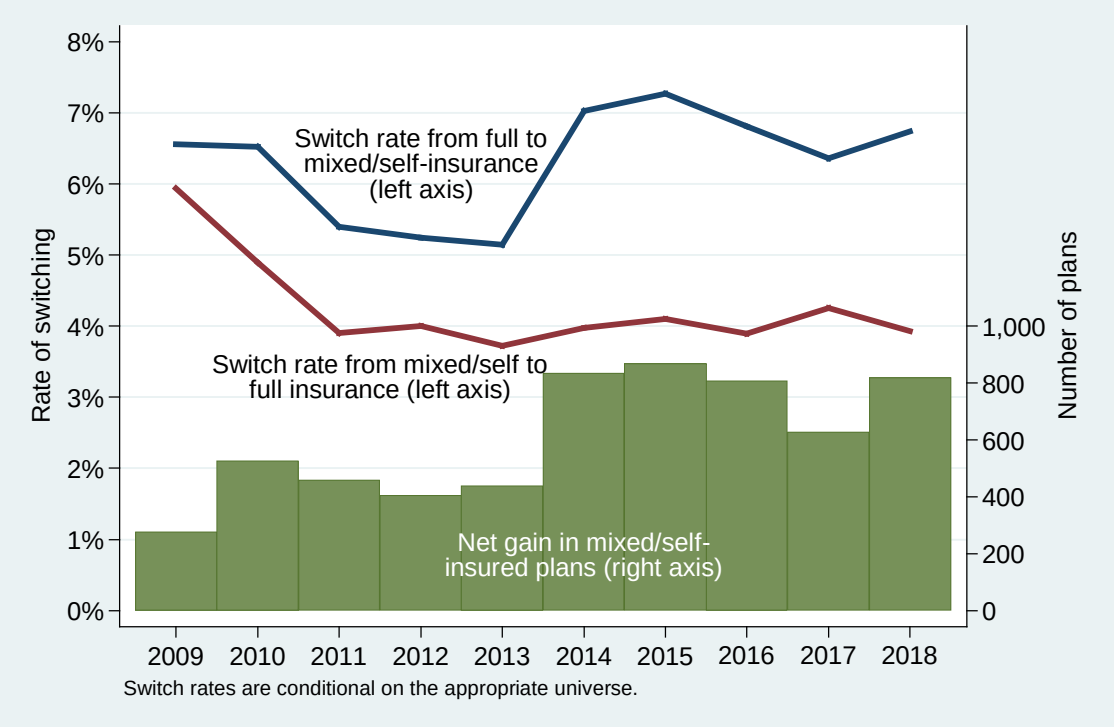
Figure 8 shows the historical switch rates for new plans, i.e., funding mechanism changes between plans' first and second filings. Prior to 2018, mixed-funded or self-insured plans generally were more likely to switch to full insurance (red line) than fully insured plans were to switch to a form of self-insurance (blue line), but that pattern reversed in 2018. For example, 3.7% of plans that started in 2017 as mixed-funded or self-insured had switched to full insurance by 2018, compared with 7.0% of fully insured plans that had switched to mixed-funding or self-insurance. Figure 7 above showed that most new plans were fully insured in 2017, and because they are also more likely to switch funding mechanism, the number of plans switching toward self-insurance exceeded the number moving toward full insurance. The flows were small; on net, generally only a few dozen plans moved annually (green bars, right axis).

Figure 8. Rates of Funding Switching among New Plans and the Resulting Net Gain in Plans with a Self-Insured Component, by Statistical Year



Similarly, Figure 9 shows the historical switch rates for established plans and the resulting net flow of plans toward self-insurance. Switch rates were higher toward self-insurance (blue line) than away from it (red line), especially since 2014. For example, 3.9% of established plans that in 2017 were mixed-funded or self-insured had switched to full insurance by 2018, compared with 6.7% of fully insured plans that had switched to mixed-funding or self-insurance.[29]

Figure 9. Rates of Funding Switching among Established Plans and the Resulting Net Gain in Plans with a Self-Insured Component, by Statistical Year



Again, the switch rate patterns in Figure 9 do not necessarily reflect flows of plans because of differences in the numbers of established plans that were fully insured or mixed-funded/self-insured. The green bars indicate the net gains in plans with a self-insured component as a result of switching by established plans. On net, switching by established plans added to the number of plans with a self-insured component, especially starting in 2014. The flows were larger among established plans than among new plans, with roughly 600–800 plans annually moving toward self-insurance in 2014–2018.

Figure 5 showed that the fully insured share of health plans was relatively flat until 2013, and indeed the net flows of switching plans were relatively small. Starting in 2014, net flows toward self-insurance became larger, and indeed the prevalence of mixed-funding or self-insurance increased.

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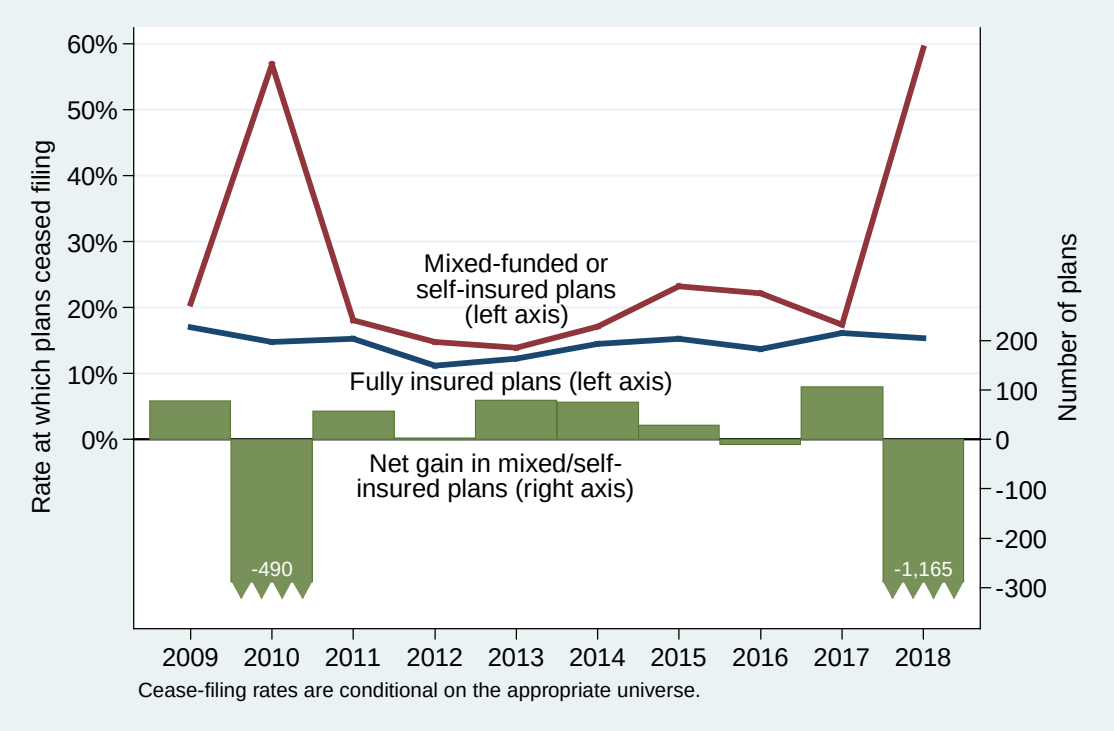
[29] Some plans appear to switch funding more often than is plausible, possibly because incomplete information on Form 5500 filings may result in conflicting categorizations from one year to the next. The switch rates in Figure 9 may thus be overstated, but the net effect on plan flows should be approximately zero.

Changes in Mixed/Self-Insurance Due to Plans Ceasing Filing

Figure 10 shows the rates at which new plans ceased filing; they could have checked both the first and final return/report checkboxes, or they could have filed just a single Form 5500. In all years from 2009 to 2018, mixed-funded or self-insured new plans were more likely to cease filing (red line) than their fully insured counterparts (blue line). However, in about six out of ten years the net result was an increase in plans with a self-insured component (positive green bars): the number of terminating fully insured plans exceeded the number of terminating plans with a self-insured component because most new plans were fully insured.[30]

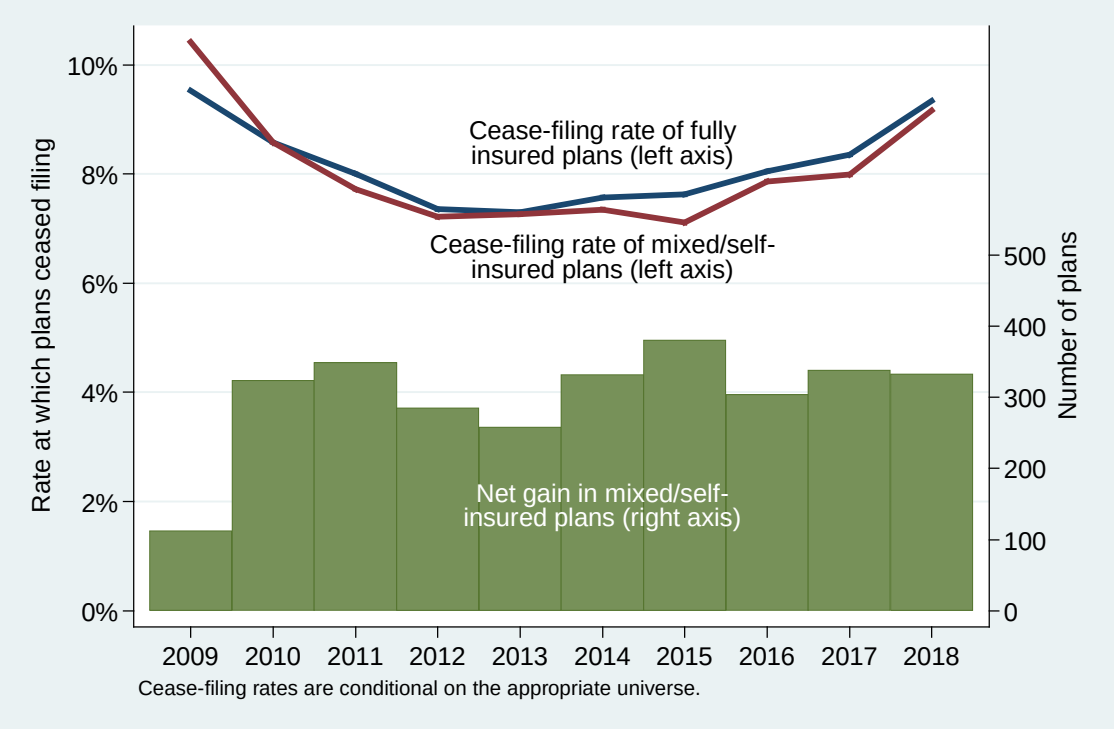
Figure 10. Rates at Which New Plans Ceased Filing, by Statistical Year



[30] The spike in 2010 was due to a single administrator who submitted more than 800 Form 5500 filings for very small, self-insured plans in 2010 and checked both the first and final return/report boxes. No such explanation is evident for the increase in 2015. The anomaly in 2018 was due to hundreds of very small, self-insured plans that participate in a MEWA. All were considered to immediately terminate because they responded affirmatively to Form 5500-SF, Line 13b ("Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?"). However, a cursory review of 2019 filings (outside the scope of this report) suggested that they remained operational, and continued to respond affirmatively to Line 13b. (The same MEWA had also introduced hundreds of new plans in 2017, with the same pattern.) Excluding the plan filings associated with this MEWA, the termination rate of mixed-funded and self-insured plans would have been 26% in 2018 (instead of 59%), and the net flow would have been a reduction of just 34 plans (instead of 1,165 plans).

Similarly, Figure 11 shows that rates at which established fully insured plans ceased filing (blue line) were generally close to those of mixed-funded or self-insured plans (red line). Since more established plans were fully insured than mixed-funded or self-insured (see Figure 7), the net effect was an increase in the prevalence of mixed/self-insured plans (green bars).

Figure 11. Rates at Which Established Plans Ceased Filing



In conclusion, the share of plans that were mixed-funded or self-insured was approximately flat until 2013. New plans tended to be fully insured, but switch and termination patterns resulted in modest net additions of mixed-funded or self-insured plans. Starting in 2014, switching and terminations, on net, added more mixed-funded and self-insured plans than before, and the fraction of plans with a self-insured component grew slightly. That growth accelerated in 2018 because of the introduction of large numbers of very small, self-insured plans that participate in a MEWA.

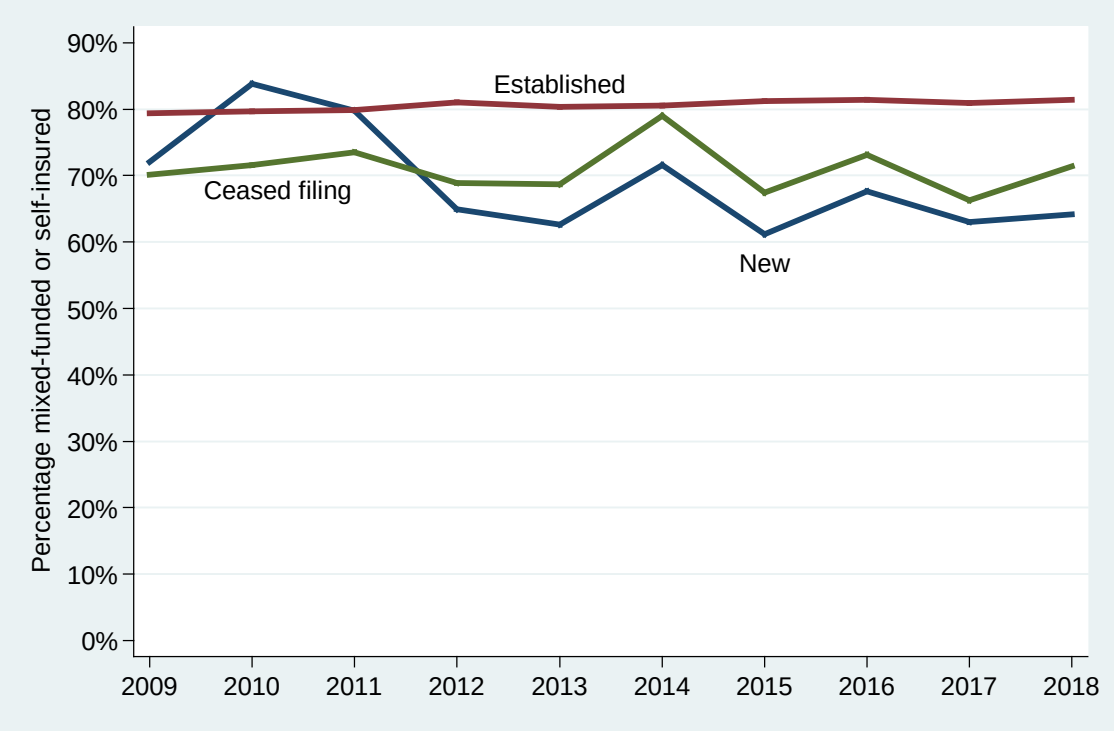
The ACA was enacted in 2010 and many of its provisions became effective in 2014, which coincides with increased self-insurance among new plans and increased net switching toward self-insurance among all plans. While our analysis of the trends documented above is agnostic with respect to causality, it is possible that the ACA prompted elevated interest in self-insurance. The share of plans with a self-insured component rose by 3.7 percentage points from 45.2% in 2013 to 48.9% in 2018 (see Figure 5 and Table 6). As discussed above, a portion of this increase may be attributed to Form 5500 filing requirements which selectively include self-insured small plans into the analysis. Excluding plans with fewer than 100 participants at the beginning of the reporting period, the share of plans with a self-insured component rose by 1.5 percentage points from 42.9% in 2013 to 44.5% in 2018 (not shown; difference calculated prior to rounding).

Very Large Plans Behaved Differently from Other Plans

The discussion above generally ignored plan size. However, while the overall fraction of plans with a self-insured component was approximately flat from 2009 to 2013, the participant-weighted fraction increased. Since 2013, plans have migrated toward self-insurance, but the participant-weighted fraction was following an approximately flat trajectory. Indeed, very large plans followed different patterns from other plans and drove participant-weighted trends, as demonstrated in this section.

Figure 12 shows the percentage of participants who were covered by a mixed-funded or self-insured plan, by plan life cycle stage, from 2009 to 2018. It is the participant-weighted counterpart of Figure 7. Participants in new plans were generally less likely to be in mixed-funded or self-insured plans than those in established plans or plans that ceased filing. If plans never switched funding mechanisms, this should drive down the overall fraction of participants in plans with a self-insured component. However, self-insurance among participants generally increased until 2013 and remained approximately level thereafter, pointing at funding mechanism switching as the main cause of the observed pattern.

Figure 12. Participant-Weighted Percentage Mixed-Funded or Self-Insured among New Plans, Established Plans, and Plans That Ceased Filing, by Statistical Year



Before turning to switching patterns, consider that most participants are covered by very large plans (Table 1 and Table 9). We restrict the analysis to the most recent five years (2014–2018). Only 1.0% of new plans covered 5,000 or more participants,

but those plans accounted for 40.3% of participants in all new plans. [31] Among established plans, 65.1% of participants were in plans with 5,000 or more participants. The behavior of plans with more than 5,000 participants is therefore key to understanding participant-weighted trends in funding.

Table 9. Distribution of Health Plans and Plan Participants, by Plan Participant Counts (2014–2018)

Participants	New Plans		Established Plans		Plans That Ceased Filing	
in plan (EOY)	Plans	Participants	Plans	Participants	Plans	Participants
Zero	3.0%	0.0%	0.1%	0.0%	31.7%	0.0%
1–99	26.6%	1.6%	6.3%	0.2%	20.6%	2.3%
100–199	42.6%	14.6%	32.4%	3.3%	21.8%	7.8%
200–499	17.7%	13.1%	32.1%	6.9%	15.2%	11.9%
500–999	4.7%	8.0%	12.4%	6.0%	5.0%	8.9%
1,000–1,999	2.6%	9.3%	7.3%	7.1%	2.7%	9.7%
2,000–4,999	1.7%	13.2%	5.3%	11.4%	1.8%	14.5%
5,000+	1.0%	40.3%	4.2%	65.1%	1.1%	44.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Form 5500 health plan filings.
Percentages may not sum to 100% due to rounding.

Table 10 shows the annual rate of funding mechanism switching among new and established plans. Overall, 6.7% of plans that started as fully insured switched to mixed-funded or self-insured during their second reporting period, but very large plans were much more likely to make that switch than smaller plans. For example, 18.5% of fully insured new plans with 5,000 or more participants changed funding mechanism, compared with much lower fractions of plans with 1–499 participants. Conversely, relatively small plans that started life as mixed-funded or self-insured were more likely to switch to fully insured than their larger counterparts. A similar pattern exists among established plans. Since most participants are in very large plans, the implication is that, on net, participants in both new and established plans migrated to mixed-funding or self-insurance.

[31] A manual review indicated that such plans commonly were successor plans to prior plans that were replaced or consolidated, such as after a corporate merger. Likewise, plans that ceased filing may have been replaced with other plans and secured continuing health benefit coverage for their participants.

Table 10. Annual Rates of Funding Switching among New and Established Plans, by Plan Size (2014–2018)

	New Plans		Established Plans	
EOY plan participants	Switch to mixed or self-insured	Switch to fully insured	Switch to mixed or self-insured	Switch to fully insured
Zero	8.3%	5.7%	10.8%	9.6%
1–99	10.0%	0.7%	6.8%	2.3%
100–199	4.9%	14.2%	4.7%	7.2%
200–499	7.0%	8.7%	6.5%	5.1%
500–999	14.3%	4.6%	10.3%	3.2%
1,000–1,999	16.0%	5.9%	13.7%	2.0%
2,000–4,999	14.8%	2.9%	16.4%	1.4%
5,000+	18.5%	3.5%	15.0%	1.5%
Total	6.7%	5.8%	6.8%	4.0%

Source: Form 5500 health plan filings.
Note: Rates are conditional on the appropriate universe. For example, the denominator for the first column is fully insured new plans.

Rates at which plans ceased filing also varied by plan size (Table 11), with very large plans generally less likely to stop filing in 2014–2018 than smaller plans.[32] Among plans with 5,000 or more participants, fully insured plans ceased filing at a higher rate than mixed-funded or self-insured plans.

Table 11. Annual Rates at Which New and Established Plans Ceased Filing, by Plan Size (2014–2018)

	New Plans		Established Plans	
BOY plan participants	Mixed or self-insured	Fully insured	Mixed or self-insured	Fully insured
Zero	87.5%	50.0%	20.5%	10.0%
1–99	56.4%	44.2%	13.8%	12.4%
100–199	19.3%	16.4%	11.4%	9.9%
200–499	16.3%	10.6%	7.3%	6.9%
500–999	12.5%	12.4%	6.7%	6.2%
1,000–1,999	10.0%	9.0%	5.9%	6.1%
2,000–4,999	7.4%	14.1%	5.4%	5.6%
5,000+	7.5%	13.8%	4.0%	4.8%
Total	34.6%	15.0%	7.9%	8.2%

Source: Form 5500 health plan filings.

In conclusion, large plans on net switched away from full insurance, thereby increasing the fraction of participants in mixed-funded or self-insured plans. Further reinforcing this trend, large fully insured plans were more likely to cease filing than

[32] Given the focus on the end of the life cycle, Table 11 categorizes plans by the number of participants at the beginning (rather than the end) of the reporting period. On a related point, fully insured plans with zero or 1–99 participants that do not use a trust and are not a MEWA generally do not need to file, which may help explain their high cease-filing rates.

large mixed-funded or self-insured plans. The overall change was modest, with only about one percentage point more participants in plans with a self-insured component in 2018 than in 2013.

Stop-Loss Coverage of Plans

Table 12 examines the presence of stop-loss insurance. These figures must be interpreted with caution. First, if stop-loss insurance identifies the health plan as the beneficiary or it is purchased with plan assets, it must be reported on a Schedule A.[33] However, if the employer/sponsor has purchased stop-loss insurance with itself as the beneficiary (rather than the plan), then it need not be reported on the Form 5500. Second, Table 12 is based on the "Stop loss (large deductible)" benefit type reported on Schedule A, but that benefit type may reflect a health insurance contract with a high deductible rather than stop-loss insurance. External studies indicate that Table 12 understates the prevalence of stop-loss insurance.[34]

In 2018, 18.3% of mixed-funded and 23.3% of self-insured plans reported stop-loss coverage on a Schedule A, down from 2009 rates of 25.8% and 26.5%, respectively. Reported stop-loss coverage of mixed-funded plans decreased until approximately 2014, appeared to stabilize (except in 2015), and resumed its decline in 2018. Conversely, the trend among self-insured plans—fairly stable between 2010 and 2015—declined in recent years. Weighted by the number of participants, 13.8% of mixed-funded and 19.0% of self-insured plans reported stop-loss coverage for 2018, indicating that smaller plans are more likely to report stop-loss insurance than larger plans (also see Figure 13 below).[35] The participant-weighted figures are historically more volatile than unweighted figures, mostly because a single, very large, self-insured plan reported stop-loss insurance in 2014–2018, but not in prior years.

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[33] Our analysis of stop-loss coverage excludes Form 5500-SF filings because Schedule A is not required to be attached to the Form 5500-SF. In total, the stop-loss analysis excluded 3,544 Form 5500-SF filings, of which 2,020 (57%) participate in a MEWA. Insofar we could determine from their MEWA websites, all were covered by stop-loss insurance. (An additional 55 plans that participate in a MEWA filed a Form 5500; also see page 25.)

[34] Our 2012 report, *Anomalies in Form 5500 Filings: Lessons from Supplemental Data for Group Health Plan Funding*, suggests that as many as four out of five self-insured or mixed-funded plans and roughly 55% of participants in such plans were covered by stop-loss insurance, possibly purchased for the benefit of the plan sponsor. These stop-loss coverage levels are consistent with those in the 2013 KFF/HRET study. More recently, the 2018 KFF/HRET study documented that 60% of participants in self-funded plans were in a plan that had purchased stop-loss insurance in 2018. It should also be noted that stop-loss insurance reported on a Form 5500 filing does not necessarily relate to health benefits but could protect other self-insured benefits, such as disability benefits.

[35] The annual KFF/HRET Survey collects information about stop-loss coverage, including for the benefit of the plan sponsor. Weighted by workers covered by self-insured health plans, stop-loss coverage was 59% in 2013, 65% in 2014, 60% in 2015, 57% in 2016, 58% in 2017, and 60% in 2018.

Table 12. Percentage of Health Plans Reporting Stop-Loss Insurance, by Funding Mechanism and Statistical Year

Statistical	Plans		Participants	
year	Mixed	Self-insured	Mixed	Self-insured
2009	25.8%	26.5%	17.5%	14.7%
2010	24.3%	25.2%	16.0%	14.0%
2011	22.8%	25.6%	15.3%	13.5%
2012	21.5%	25.8%	14.0%	13.5%
2013	20.6%	25.4%	14.2%	13.4%
2014	20.0%	26.0%	14.7%	19.5%
2015	23.5%	25.6%	15.5%	19.4%
2016	20.1%	25.0%	15.5%	19.1%
2017	19.9%	23.7%	15.7%	18.7%
2018	18.3%	23.3%	13.8%	19.0%

Source: Form 5500 health plan filings.

Note: Reflects stop-loss coverage as reported on Form 5500.

Table 13 shows the annual per person cost of stop-loss coverage, calculated as the ratio of premiums to "number of persons covered" by the stop-loss policy on Schedule A—both the premium and the number of people covered thus refer to the stop-loss policy only and not to the overall plan. The numbers are not adjusted for inflation. These results should also be interpreted with caution because the Form 5500 filing contains no information on attachment points or other stop-loss policy features that may reflect the amount of coverage provided by the policies.[36]

[36] Per person premiums were calculated from Schedules A that specified stop-loss coverage only or in combination with health benefits. Approximately 15% of such Schedules A specified additional benefits (e.g., prescription drugs in addition to stop-loss and health). The per person premium may thus reflect stop-loss coverage for benefits in addition to health benefits. Separately, since the analysis is based on "Stop loss (large deductible)" benefits reported on Schedule A, it may include high-deductible health contracts rather than just stop-loss policies. However, even at the 75th percentile, the average premium, $1,761 per person per year in 2018, was well below market rates for high-deductible health plans, suggesting this potential issue does not substantially affect the results. According to the 2018 KFF/HRET Survey, the average premium for single coverage on high-deductible health plans was $6,459 in 2018.

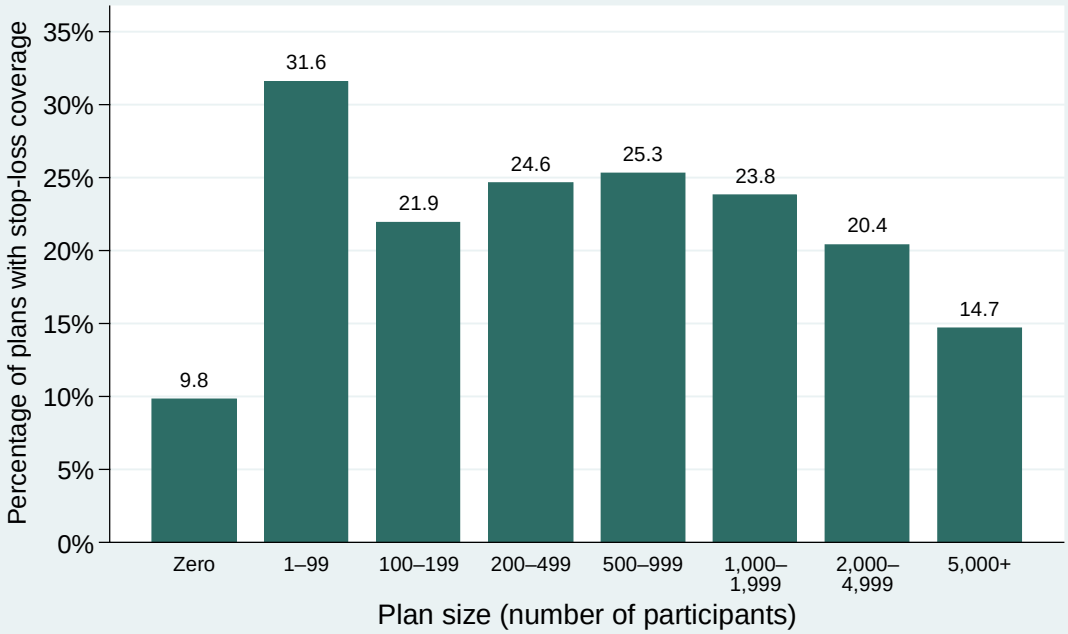
Table 13. Per Person Annual Premiums for Stop-Loss Insurance

	Mixed-funded			Self-insured		
year	25th pct	Median	75th pct	25th pct	Median	75th pct
2009	$171	$409	$962	$211	$545	$969
2010	$196	$444	$1,094	$237	$550	$987
2011	$206	$436	$1,154	$255	$579	$1,039
2012	$193	$423	$1,109	$275	$628	$1,123
2013	$214	$487	$1,262	$289	$669	$1,206
2014	$217	$536	$1,436	$318	$715	$1,288
2015	$280	$663	$1,985	$344	$766	$1,364
2016	$238	$580	$1,221	$353	$826	$1,505
2017	$255	$601	$1,266	$395	$889	$1,611
2018	$261	$648	$1,463	$436	$966	$1,761

Source: Form 5500 health plan filings.
Note: Reflects stop-loss coverage as reported on Form 5500.

Figure 13 shows the rate of stop-loss coverage among self-insured plans by plan size. Almost one-in-three self-insured plans with 1–99 participants reported stop-loss coverage. Many of these plans were clustered in the sense that their plan names followed a common pattern (e.g., "Employee Health Plan of [sponsor name]"), they reported the same stop-loss insurance carrier, and they submitted their filings within a few days of one another. The Form 5500 provides insufficient information to determine whether these are level-funded plans.

Figure 13. Self-Insured Health Plans' Rate of Stop-Loss Coverage, by Plan Size (2018)



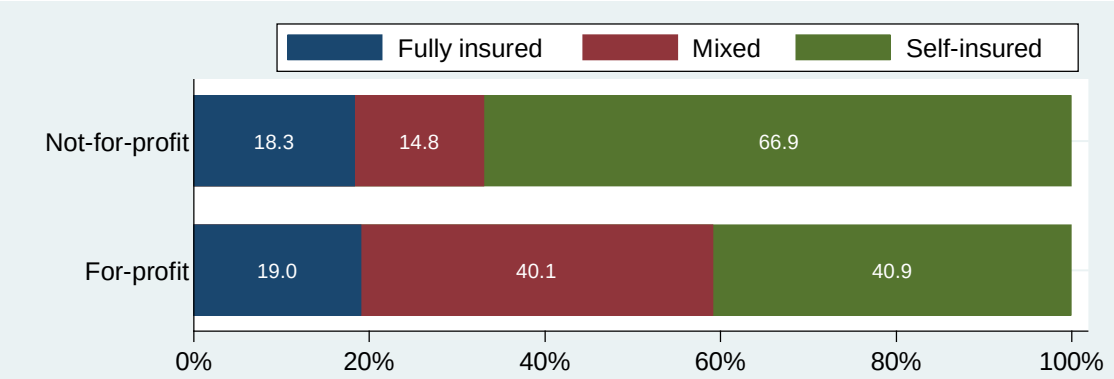
Source: Form 5500 filings.
Reflects stop-loss coverage as reported on Form 5500; see text.

Aside from plans that file the Form 5500 or Form 5500-SF with 1–99 participants, stop-loss coverage increases with plan size up to 500–999 participants and decreases with plan size among larger plans. Lower stop-loss coverage for smaller plans is not consistent with the notion that smaller plans face greater financial risks and should thus be more likely to purchase stop-loss coverage. Part of the explanation may relate to the fact that stop-loss coverage with the sponsor (rather than the plan) as beneficiary need not be reported on Form 5500; smaller employers may be more likely to designate the firm as the beneficiary than larger employers. The lower prevalence of stop-loss insurance among small plans may also reflect market realities: insurance companies may not offer stop-loss insurance to small employers, or offer it only at very high prices. The 2018 KFF/HRET Survey also documented lower stop-loss coverage rates among small and large plans than among mid-sized plans.

Funding Mechanisms and Financial Metrics

As described above, we matched the Form 5500 health plan data to Form 990 filings to identify whether a health plan sponsor is a for-profit or a not-for-profit entity. About one-in-six plans (16.2%) were found to be sponsored by a not-for-profit entity. Their plans covered 16.9% of participants. Figure 14 presents the participant-weighted breakdown in funding status for for-profit and not-for-profit firms. The two groups differ mostly in mixed-funding and self-insurance: 66.9% of participants in not-for-profit entity plans were covered by a self-insured plan, compared with 40.9% of participants in for-profit firms' plans. Conversely, mixed funding was far less prevalent at not-for-profit entities than at for-profit firms. It appears that the differences are not driven by plan sizes, because the distribution of plan size is similar at not-for-profit entities and for-profit firms (not shown).

Figure 14. Participant-Weighted Distribution of Funding Mechanism, by For-Profit and Not-for-Profit Sponsors (2018)



Source: Form 5500 filings.

Focusing on the subset of Form 5500 health plan filers that could be matched to financial information in Bloomberg, Table 14 presents 2018 information on company size as measured by revenue, market capitalization, profit, and number of employees (and the number of observations on which each calculation is based). The table shows that companies offering fully insured health plans tend to be smaller than companies with self-insured or mixed-funded health plans. Companies offering mixed-funded health plans tend to be the largest.

Table 14. Characteristics of Companies Matched to Form 5500 Health Plan Filings, by Funding Mechanism (2018)

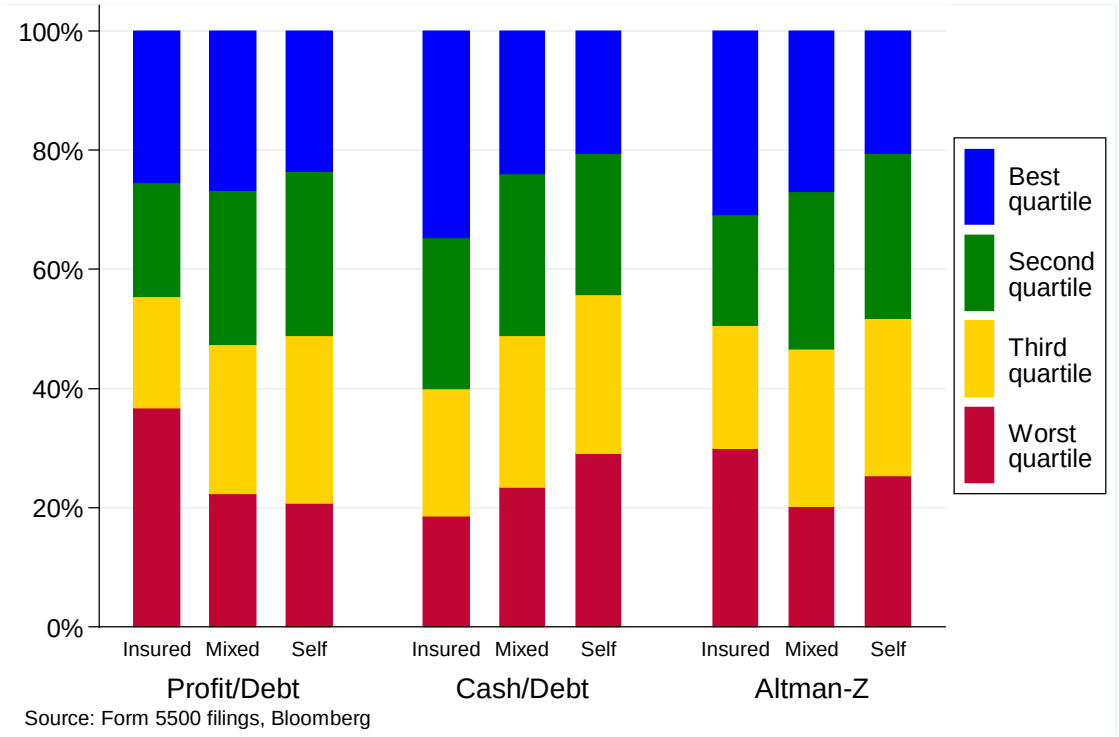
		All	Fully insured	Mixed	Self-insured
Revenue (in $ millions)	25 pct	326	94	1,550	469
	Median	1,600	331	4,570	1,790
	75 pct	7,110	1,660	14,000	7,650
	# Obs	4,117	1,186	981	1,950
Market capitalization (in $ millions)	25 pct	710	312	1,870	847
	Median	2,970	1,100	5,800	3,250
	75 pct	12,500	4,490	24,100	14,200
	# Obs	3,262	884	859	1,519
Profit (in $ millions)	25 pct	2	-8	36	11
	Median	95	12	263	137
	75 pct	536	134	1,070	589
	# Obs	3,829	1,117	955	1,757
Number of employees	25 pct	1,287	374	4,300	1,851
	Median	5,700	1,072	12,574	6,200
	75 pct	23,000	6,300	40,000	23,300
	# Obs	3,280	870	885	1,525

Source: Form 5500 health plan filings and Bloomberg data.

Figure 15 presents three metrics of the financial health of matched companies: the ratio of profit to total debt, the ratio of cash and cash equivalent holdings to total debt, and the Altman Z-Score.[37] For all three, higher values suggest better financial health. We grouped all matched plans into quartiles and show in Figure 15 the share of fully insured, mixed-funded, and self-insured plans in each quartile. Consider the ratio of profit to total debt. If financial health were unrelated to funding mechanisms, all bars would be approximately equal-sized. Instead, 36.8% of fully insured sponsors were in the bottom quartile, compared with 22.2% of mixed-funded and 20.6% of self-insured sponsors; see the red bars in the left portion of Figure 15. Based on how frequently their ratios of profit to total debt are in the bottom quartile, mixed-funded and self-insured companies thus appear to be in better financial health than fully insured companies.

[37] The Altman Z-Score is an index summarizing five financial measures that are used to predict bankruptcy risk. A Z-Score greater than 2.99 is considered the "safe" zone, between 1.80 and 2.99 is the "grey" zone, and less than 1.80 is the "distress" zone. The 25th percentile of Altman Z-Scores of plan sponsors in our analysis was 1.46, i.e., all companies in the bottom quartile and some in the second quartile were considered to be in the "distress" zone. For details, see Altman, E.I. (1968). "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy." *Journal of Finance* 23(4): 589–609.

Figure 15. Financial Health of Companies Matched to Form 5500 Health Plan Filings, by Funding Mechanism (2017)



Source: Form 5500 filings, Bloomberg

The results are mixed for the other two metrics of financial strength. The Altman Z-Score suggests that mixed-funded and self-insured sponsors are in better financial health than fully insured sponsors, but the ratio of cash holdings to total debt points to the opposite conclusion. In short, there is no consistent evidence that mixed-funded or self-insured sponsors are in better or worse financial health than fully insured sponsors. These findings are generally consistent with those in prior reports.[38] Finally, as in prior years, fully insured plans show a wider dispersion of financial health (as measured by the share of plans in the bottom and top quartiles combined) than mixed-funded and self-insured plans.

Table 15 shows the percentages and sample sizes corresponding to Figure 15.

[38] This report shows the ratio of profit to total debt where prior reports studied the ratio of operating income to total debt because profit may better reflect financial health than operating income. The results are qualitatively the same.

Table 15. Financial Health of Companies Matched to Form 5500 Health Plan Filings, by Funding Mechanism (2018)

		All	Fully insured	Mixed	Self-insured
Profit over total debt	Best quartile	25.0%	25.4%	26.9%	23.6%
	Second quartile	25.0%	19.3%	25.9%	27.5%
	Third quartile	25.0%	18.5%	25.1%	28.3%
	Worst quartile	25.0%	36.8%	22.2%	20.6%
	# Obs	3,134	763	882	1,489
Cash (equivalent) holdings over total debt	Best quartile	24.9%	34.8%	24.0%	20.5%
	Second quartile	25.0%	25.2%	27.1%	23.8%
	Third quartile	25.0%	21.5%	25.5%	26.6%
	Worst quartile	25.0%	18.5%	23.4%	29.1%
	# Obs	3,403	825	911	1,667
Altman Z-Score	Best quartile	25.0%	30.9%	27.0%	20.5%
	Second quartile	25.0%	18.6%	26.4%	27.7%
	Third quartile	25.0%	20.6%	26.5%	26.5%
	Worst quartile	25.0%	29.9%	20.1%	25.3%
	# Obs	2,716	693	766	1,257

Source: Form 5500 health plan filings and Bloomberg data.
Percentages may not sum to 100% due to rounding.

5. GROUP INSURANCE ARRANGEMENTS

The analysis above excludes GIAs because GIAs are not group health plans. However, they may be of interest for their role in securing employer-sponsored health benefits. A GIA provides benefits to the employees of two or more unaffiliated employers (not in connection with a multiemployer plan or a collectively-bargained multiple-employer plan), fully insures one or more welfare plans of each participating employer, uses a trust or other entity as the holder of the insurance contracts, and uses a trust as the conduit for payment of premiums to the insurance company (2018 Instructions for Form 5500). Therefore, by definition, GIAs are fully insured.

For 2018, 42 arrangements covering about 327,000 participants filed a Form 5500 as a GIA,[39] compared with 60,530 group health plans that sponsored 77.6 million participants. GIAs tend to be larger than group health plans. For example, 88.1% of GIAs covered 500 or more participants, compared with 25.9% of group health plans.

GIAs further differ from group health plans in their distribution of industry sectors. Perhaps due to the diversity of their contributing employers, as many as 35.7% of GIAs reported a “Miscellaneous” industry or none at all. As many as 35.7% are active in the finance, insurance, and real estate sector, and their participants account for 64.8% of all GIA participants, compared with just 10.4% of group health plans and 10.9% of participants in such plans.

[39] One additional plan also filed as a GIA, but was removed after a manual review concluded that the plan did not provide health benefits.

6. CONCLUSION

The ACA was enacted in 2010 and has brought about far-reaching changes to health care financing and coverage. This report and its counterparts from prior years aim to monitor any changes in employer-sponsored health benefit coverage and its funding mechanism that employers have made in the first few years since the ACA became law. While we identified several time trends, the changes tended to be moderate, generally started prior to 2010, and largely flattened out in recent years.

The number of health plans that filed a Form 5500 and the number of participants that they cover is continuing to grow; i.e., there is no indication that employers are dropping health benefit coverage. We note that most small health benefit plans are exempt from filing a Form 5500, so no conclusions should be drawn based on this report with respect to small employers.

The overall distribution of funding mechanism is generally consistent with recent trends, but some issues are noteworthy. At the plan level, self-insurance or mixed-funding increased, as it has since 2013, but most of the recent change is driven by a rise in the number of self-insured plans with fewer than 100 participants and their selective inclusion in the analysis. In particular, the number of very small, self-insured plans that participate in a non-plan MEWA has increased sharply since 2016. At the participant level, self-insurance or mixed-funding increased slightly over the past decade. We reiterate that the changes were moderate.

The trend toward less stop-loss coverage (as reported on Form 5500 filings), which had abated for self-insured plans since 2010, resumed for self-insured plans in 2015 and continued its decline in 2018. Stop-loss coverage among mixed-funded plans remained approximately constant in recent years, but declined in 2018. It is unclear whether these findings reflect trends in overall stop-loss coverage—Form 5500 filings are known to be an incomplete source of information about stop-loss coverage.

Overall, the Form 5500, despite some known limitations, continues to be a useful data source to better understand the type and range of health benefits that employers provide to American workers. The relatively long history of these data can help frame important policy debates surrounding these benefits. It can be anticipated that future versions of this report will continue to document these important trends.

TECHNICAL APPENDIX

The definitions of funding mechanism rely upon the fields of Form 5500 and its Schedules as outlined in Table 16.

Table 16. Data Fields Used to Determine Plan Funding Type

Source	Description
Form 5500, Line 5; Form 5500-SF, Line 5a	Total number of participants at the beginning of the plan year
Form 5500, Line 6d; Form 5500-SF, Line 5b	Number of participants at the end of the plan year who are active, retired, separated, or retired/separated and entitled to future benefits
Form 5500, Line 9a	The ‘‘funding arrangement’’ is the method for the receipt, holding, investment, and transmittal of plan assets prior to the time the plan actually provides benefits. Plan funding arrangement (check all that apply) 1. Insurance 2. Section 412(e)(3) insurance contracts 3. Trust 4. General assets of the sponsor
Form 5500, Line 9b	The ‘‘benefit arrangement’’ is the method by which the plan provides benefits to participants. Plan benefit arrangement (check all that apply) 1. Insurance 2. Section 412(e)(3) insurance contracts 3. Trust 4. General assets of the sponsor
Schedule A, Line 1e	Approximate number of persons covered at the end of the plan year
Schedule A, Line 2a	Total amount of commissions paid
Schedule A, Line 2b	Total fees paid
Schedule A, Line 3e	Organization code of agents, brokers, or other persons to whom commissions or fees were paid: 1. Banking, Savings & Loan Association, etc. 2. Trust Company 3. Insurance Agent or Broker 4. Agent or Broker other than insurance 5. Third party administrator 6. Investment Company/Mutual Fund 7. Investment Manager/Adviser 8. Labor Union 9. Foreign entity 0. Other
Schedule A, Line 6b	Premiums paid to carrier

Source	Description
Schedule A, Line 8	Type of benefit and contract types: A. Health (other than dental or vision), I. Stop loss (large deductible), J. HMO contract, K. PPO contract, L. Indemnity contract, M. Other and other codes for dental, vision, life, disability, etc. More than one code may be checked
Schedule A, Line 8m	Description of “Other” benefit and contract type
Schedule A, Line 9a(4)	Total earned premium amount for experience-rated contracts
Schedule A, Line 9b(3)	Incurred claims
Schedule A, Line 9b(4)	Claims charged
Schedule A, Line 9e	Dividends or retroactive rate refunds due
Schedule A, Line 10a	Total premiums or subscription charges paid to carrier for nonexperience-rated contracts
Schedule H, Line 2e	Benefit payment and payments to provide benefits: 2e(1) Directly to participants or beneficiaries, including direct rollovers 2e(2) To insurance carriers for the provision of benefits 2e(3) Other 2e(4) Total benefit payments
Schedule I, Line 2e; Form 5500-SF, Line 8d	Benefits paid (including direct rollovers)

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