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SELF-INSURED HEALTH BENEFIT PLANS 2020
Based on Filings through Statistical Year 2017

February 20, 2020

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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, mixed-funded, and self-insured health plans for reporting periods that ended in 2017 and presents select historical series for the years 2008 through 2017. For a subset of health plan sponsors, publicly available corporate financial data were also used. The primary findings include:

- Almost one-half (47.3%) of Form 5500 filing health plans were self-insured or mixed-funded (funded through a mixture of insurance and self-insurance) in 2017, and those plans covered 80.7% of plan participants.
- At the plan level, the shares of self-insured (40.8%), mixed-funded (6.5%), and fully insured (52.7%) plans represent a small shift toward self-insurance relative to 2016.
- In 2017, self-insured plans covered 45.7% of plan participants, mixed-funded plans 35.0%, and fully insured plans 19.3%. Unlike plan-level changes, these participant-level shares signal a small shift away from self-insurance since 2016.
- As reported in Form 5500 filings, stop-loss coverage among self-insured plans continued its decline from 28.1% in 2008 to 25.0% in 2016 and 23.7% in 2017. Stop-loss coverage among mixed-funded plans also decreased between 2008 and 2014, but remained unchanged from 2016 at about 20%. These figures should be interpreted with caution. They likely underestimate the prevalence of stop-loss insurance in each year.
- Most Form 5500 filing plans with fewer than 100 participants were self-insured in 2017. This is most likely due to Form 5500 filing requirements rather than being 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, 26.9% of plans with 100–199 participants were mixed-funded or self-insured in 2017, compared with 89.0% of plans with 5,000 or more participants. The pattern was similar in 2016.
- Mixed-funding is found primarily among very large plans. For example, 1.4% of plans with 100–199 participants were mixed-funded in 2017, compared with 40.9% of plans with 5,000 or more participants.
- Self-insurance rates varied by industry, with utilities, agriculture, mining, and construction firms having the highest prevalence of self-insurance.
- Plans of for-profit and not-for-profit organizations differed mostly in mixed-funding and self-insurance: 69.0% of participants in not-for-profit entity plans were covered by a self-insured plan, compared with 39.7% of participants in for-profit firms' plans. Conversely, mixed funding was far less prevalent at not-for-profit entities than at for-profit firms.
- There is 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 2017, 46 GIAs filed a Form 5500. They covered about 313,000 participants, were generally larger than group health plans, and were disproportionately active in the finance, insurance, and real estate industry.

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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 (including information on assets, liabilities, contributions, investments, and expenses). The U.S. Department of Labor (DOL) engaged Advanced Analytical Consulting Group, Inc. (AACG) to assist with the ACA mandate.[1] This document is intended to serve as an appendix to the Secretary's 2020 *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 tenth installment of a series that began in 2011. While it has been generally consistent over time, the analysis underwent several changes for the current report. First, plans were excluded from the analysis if the number of participants at both the start and end of the year was zero. Second, plans were excluded from the analysis if their name suggested that they did not provide health benefits that are the subject of the ACA. Third, the algorithm that classifies plans by funding mechanism was refined. The next section discusses all changes to the analysis in detail. For consistency of time-series patterns documented in this report, we retroactively applied the exclusion of non-health plans and the refinement of the funding mechanism algorithm to historical plan filings.

Also new in this report is a look at arrangements providing group health insurance to the employees of more than one employer. The Department's Group Insurance Arrangement (GIA) regulation offers reporting relief to plans participating in such an arrangement as long as the benefits are fully insured, the arrangement operates through a trust, and the arrangement files a Form 5500 as a GIA. Since GIAs are not themselves group health plans, they are excluded from the main analysis. However, GIAs provide group health insurance to the employees of the employers who avail themselves of the reporting relief provided by the regulation. The plans that participate in a GIA are, by definition, fully insured.

The current report presents results for Form 5500 filings for plan years that ended in 2008–2017 (i.e., several years before and after the enactment of the ACA in March 2010 and its effective implementation in 2014). The primary findings for 2017 are similar to those for 2016, with a couple of noteworthy items. Because of the methodological changes mentioned above, this report documents slightly fewer plans and plan participants, and lower rates of self-insurance and mixed-funding than last year's report, even for historical series.

[1] Deloitte Financial Advisory Services LLP ("Deloitte") served as a subcontractor to AACG in preparing the 2015–2020 iterations of this report. Conversely, AACG served as a subcontractor to Deloitte for the 2011–2014 reports.

Section 2 of this report discusses methodological changes to the analysis universe and the algorithm to classify plans' funding mechanism. Section 3 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 4 defines funding mechanism as used in this report. Section 5 presents the results of our data analysis. Section 6 briefly characterizes GIAs, and Section 7 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. ANALYSIS CHANGES

The analysis in this report differs from that in last year's report in several aspects. This section explains the changes and quantifies their consequences.

Exclusion of Plans Without Participants

Newly established plans may report zero participants at the beginning of the reporting period, whereas plans that are winding down may report zero participants at the end of the year. Plans that reported zero participants at both the start and the end of the year are excluded from the analysis because they appear to be largely inconsequential to the health benefits of American workers.

The exclusion affects 186–473 plans annually from 2008 through 2016 and 168 plans in 2017.

Exclusion of Plans That May Not Provide Health Benefits

The Form 5500 was designed to capture information on many different types of employee benefits, including pension, health, and other benefits. Line 8 of the Form 5500 (and Line 9 of the Form 5500-SF) indicates the type(s) of benefits that the filer offers. Our analysis is based on plans that report benefit type 4A: "Health (other than vision or dental)." However, some of these plans may not provide the types of health benefits that are the subject of the ACA, which mandated this report. For example, some business travel insurance plans indicated that they provide health benefits, possibly in part because the Instructions for Form 5500 do not define a code for travel benefits.

In an attempt to align the analysis with the scope of the ACA, the DOL instructed us to exclude certain plans based on name patterns. Specifically, a plan is included in the analysis if its name includes any of the following key phrases: *HEALTH*, *MEDICAL*, *WELFARE*, *HOSPITAL*, *CRITICAL ILLNESS*, *INDEMNITY*, or *SURGICAL*. However, plans without any of those key phrases are excluded if any of the following applies:

- The plan name (but not the sponsor name) includes *DISABILITY* or *DISAB*;
- The plan name (but not the sponsor name) includes *LIFE INSURANCE*, *LIFE INS*, or *GROUP LIFE*;
- The plan name includes *AD&D*, *AD & D*, *AD AND D*, or *ACCIDENT*; or
- The plan name (but not the sponsor name) includes *TRAVEL*.

The additional criteria involving sponsor name aim to retain plans that are sponsored by companies with key phrases in their name. For example, suppose the *XYZ TRAVEL AGENCY* sponsors the *XYZ TRAVEL AGENCY EMPLOYEE BENEFITS PLAN*; this plan is included in the analysis because the word *TRAVEL* does not refer to a benefit type.

The exclusions affect 317–357 plans in 2008–2016 and 385 plans in 2017.

Refinement of Funding Mechanism Algorithm

The Form 5500 does not explicitly ask whether health benefits are fully insured by an insurance carrier or self-insured by the plan sponsor. Instead, to classify plans by funding mechanism, this report relies on an algorithm that accounts for many different fields on the Form 5500 and its schedules. As explained in Section 4, the algorithm classifies plans as fully insured, self-insured, or mixed-funded.

Information on the Form 5500 about the funding mechanism of health benefits is sometimes incomplete, ambiguous, or internally inconsistent. To resolve some of these issues, we manually reviewed many plan filings, including plan descriptions that may be attached in accountants' reports, and developed six refinements to the algorithm. The first three refinements apply to Schedule A, on which plans can report details of insurance contracts that provide fully insured health benefits.

1. *Per Capita Insurance Premiums*. An important indicator of full insurance is the presence of a Schedule A for health benefits. However, if its annualized per capita premium is implausibly low (below $2,007 in 2017; see page 14), then it is not considered to be evidence of health insurance. The first refinement addresses the calculation of per capita premiums. The numerator includes fees; commissions; experience-rated premiums or charges, whichever are higher; and non-experience-rated premiums. If no premiums or charges were reported, it also includes payments that appear to have been reported incorrectly as dividends or pension contract payments. The denominator is the approximate number of persons covered at the end of the policy or contract year. If the reporting period of the Schedule A was less than one year, the premium was annualized.

2. *Schedules A That Report "Stop Loss (Large Deductible)" Benefits*. The Schedule A asks about the benefit and contract types of the underlying insurance contract. In principle, a Schedule A is interpreted as evidence of health insurance if "Health (other than dental or vision)," "HMO contract," "PPO contract," or "Indemnity contract" are specified. Some Schedules A additionally specify "Stop loss (large deductible)" benefits. The previous algorithm interpreted such Schedules A as evidence of stop-loss insurance (associated with self-insurance) and rejected them as evidence of health insurance. Instead, the refined algorithm recognizes that "Stop loss (large deductible)" may flag high-deductible health plans, such as plans that operate in conjunction with a health savings account or health reimbursement account. A stop-loss policy may still be rejected as evidence of health insurance based on its per capita premium; see the first refinement above.

3. *Schedules A That Report TPA Services*. The Schedule A asks about fees or commissions paid for third-party administrator (TPA) services. TPAs often

administer health benefit claims and are generally associated with self-insured plans. The previous algorithm interpreted Schedules A with TPA payments as evidence of an administrative services only (ASO) contract and rejected them as evidence of health insurance. Instead, the refined algorithm recognizes that TPAs sometimes perform services other than claims administration, and it therefore ignores any TPA payments. An ASO contract may still be rejected as evidence of health insurance based on its per capita premium; see the first refinement above.

The next three refinements apply to plans that attached both a Schedule A for health benefits and a Schedule H with details on trust operations, including payments directly to participants and beneficiaries and payments to insurance carriers for the provision of benefits. Trusts are generally used by self-insured health plans to collect contributions and make benefit payments, but may also serve other purposes.

4. *Proximity of Trust and Premium Payments*. Filing of a Schedule A that shows health benefits generally suggests fully insured benefits; reporting that benefits are funded through a trust is generally associated with self-insurance. A potential ambiguity therefore arises for plans that report both health insurance (Schedule A) and the existence of a trust (Schedule H or I). Of course, the trust may funnel insurance premiums to insurance carriers without paying for self-insured benefits. The algorithm therefore compares trust payments and insurance premiums. If trust payments to insurance carriers for the provision of benefits are within 20% of insurance premiums, the plan is considered fully insured; otherwise, it is classified as mixed-funded.[2] This tolerance was adjusted from 10% in prior reports based in part on our manual review of plans.

5. *Trust Payments to Both Participants and Insurance Carriers*. Some plans report payments to both participants and insurance carriers on Schedule H. The previous algorithm carried out the proximity check between trust payments to insurance carriers and insurance premiums only if no payments were made directly to participants and beneficiaries. (Direct participant payments were considered evidence of self-insurance and the plan was classified as mixed-funded.) The refined algorithm recognizes that direct participant payments could reflect non-health benefits and further allows for the possibility that Schedule A reflects a level-funded plan contract or was filed in error. Specifically, (1) if payments to participants were large enough to plausibly reflect health benefits and trust payments to insurance carriers were within 20% of insurance premiums, the plan is considered mixed-funded;[3] (2) if payments to participants were within 50% of total payments reported on Schedules A, the plan is assumed to be a level-funded plan, thus self-insured; (3) if a Schedule A reported experience-rated charges but no premiums, the refinement assumes that Schedule A was filed in error and

[2] Schedule H distinguishes benefit payments directly to participants and beneficiaries from payments to insurance carriers (which may serve as insurance carriers or as TPAs). The proximity check is also carried out for plans that attached a Schedule I, but, since Schedule I does not distinguish between payees, it is based on total benefit payments.

[3] The same per participant threshold applies as used to accept a Schedule A as evidence of health insurance; see page 3.

classifies the plan as self-insured; (4) if payments to participants were large enough to plausibly reflect health benefits, the plan is classified as mixed-funded; otherwise, (5) participant payments are assumed to be for non-health benefits and the plan is classified as fully insured.

6. *Proximity of Trust Payments to Participants and Insurance Premiums*. If a trust is used as a conduit for insurance premiums, its payments should be reported as payments to insurance carriers. The refined algorithm recognizes that some plans erroneously report insurance carrier payments on the first line that asks for benefit payments, namely as payments directly to participants and beneficiaries. If no payments to insurance carriers were reported, and trust payments reportedly to participants were within 20% of insurance premiums, the plan is classified as fully insured.

Group Insurance Arrangements

As in previous reports, the main analysis in this report excludes GIAs, but Section 6 provides a separate analysis of arrangements providing group health to the employees of more than one employer that filed, as a GIA, a Form 5500 for 2017. To be treated as a GIA, an arrangement must provide benefits to the employees of two or more unaffiliated employers, fully insure one or more welfare plans of each participating employer, use a trust or other entity as the holder of the insurance contracts, and use a trust as the conduit for payment of premiums to the insurance company (2017 Instructions for Form 5500). Employers that choose to provide group health benefits through an entity that meets the requirements to be a GIA, including the GIA filing a Form 5500, establish their own ERISA-covered plan, but are relieved of the obligation to file a Form 5500 by virtue of the GIA's filing.

Approach to Rounding

Finally, this report adopts an approach to rounding that differs from the approach in previous reports. Throughout the report, results may be presented as a rounded number. For example, 16.048092% may be written as 16.0%, and 22,657,353 may be shown as 22.7 million. In some cases, rounding presents a paradox, such as where percentages that sum to 100%, when rounded, appear to sum to 99.9% or 100.1%. Previous reports flagged such instances with a footnote ("Numbers may not sum to total due to rounding"). Instead, this report makes adjustments to one or more numbers to ensure that the presented entries are consistent with the total. For example, 16.048092% may be rounded up to 16.1%[†] and 22,657,353 may be rounded down to 22.6[*] million. Entries are chosen for adjustment such that the absolute value of the adjustment is minimized. The adjustments are always smaller than the reported level of precision and are flagged with a footnote to assist readers with retrieving unadjusted numbers.

[†] Rounded up by less than 0.1% to ensure that numbers sum to total.
[*] Rounded down by less than 0.1 million to ensure numbers sum to total.

3. 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 Capital IQ 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 (2017 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 a Multiple Employer Welfare Arrangement (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.[4] 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.

Benefits other than pensions are collectively referred to as welfare benefits. Generally, separate Forms 5500 are filed 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.[5]

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

[4] 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 6,204 such plans (0.3%).

[5] For the purpose of this report, only health benefits are relevant. However, 85% of 2017 Form 5500 health plan filings reported on both health and other types of benefits (dental, vision, etc.).

have been able to file a Form 5500-SF (Short Form) with less detailed information.[6] This report's analysis includes 2,199 Form 5500-SF filings in 2017.

Our analysis covers almost the universe (not a sample) of health plans that filed a Form 5500. Plans are excluded only if (1) they filed a Form 5500 even though they were not required to do so ("voluntary filers"), (2) they reported zero participants at both the beginning and the end of the reporting period (see page 2), or (3) the plan name suggests that it does not offer health benefits that are the subject of the ACA (see page 2). The analysis includes only one filing per year for plans that submitted multiple Form 5500 filings during a calendar year.

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 2017 (i.e., filings with a reporting period that ended in 2017). Throughout this report, participants may include active and retired or separated employees, but will exclude dependents. For 2017, the analysis is based on almost 58,000 plans that together covered 75.4 million participants.[7]

[6] 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 books and 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 (2017 Instructions for Form 5500-SF).

[7] 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.

Table 1. Distribution of Health Plans and Health Plan Participants, by Plan Participant Counts at the End of the Reporting Period (2017)

Participants in plan	Plans	Percent	Participants (millions)	Percent
Zero	1,591	2.8%	0.0	0.0%
1–99	4,613	8.0%	0.2	0.2%
100–199	18,753	32.5%	2.7	3.6%
200–499	17,408	30.1%	5.4	7.1%
500–999	6,613	11.4%*	4.6	6.1%
1,000–1,999	3,847	6.7%	5.4	7.2%
2,000–4,999	2,737	4.7%	8.5	11.3%†
5,000+	2,188	3.8%	48.6	64.5%
Total	57,750	100.0%	75.4	100.0%

Source: Form 5500 health plan filings.

* Rounded down by less than 0.1% to ensure numbers sum to total.

† Rounded up by less than 0.1% to ensure numbers sum to total.

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.

Plans with fewer than 100 participants accounted for less than 11% of plans in our analysis.[8] Almost two-thirds of 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 3.8% of all plans in our sample, but they account for 64.5% of all participants.

Our analysis covers statistical years 2008 through 2017. As shown in Figure 1 and its underlying counts in Table 2, each statistical year includes between approximately 44,000 and 58,000 plans providing health benefits. The number of participants ranged from approximately 66 million to 75 million per year. Between 2008 and 2017, the number of plans and plan participants generally went up. The number of plans decreased in 2011, shortly after the ACA was passed, but rebounded in 2012. The number of plan participants did not drop 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 2016 and 2017, the number of plans grew by 3.7%, to almost 58,000, and the number of participants grew by 1.7%, to 75.4 million.

[8] 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.

Figure 1. Health Plans and Participants, by Statistical Year

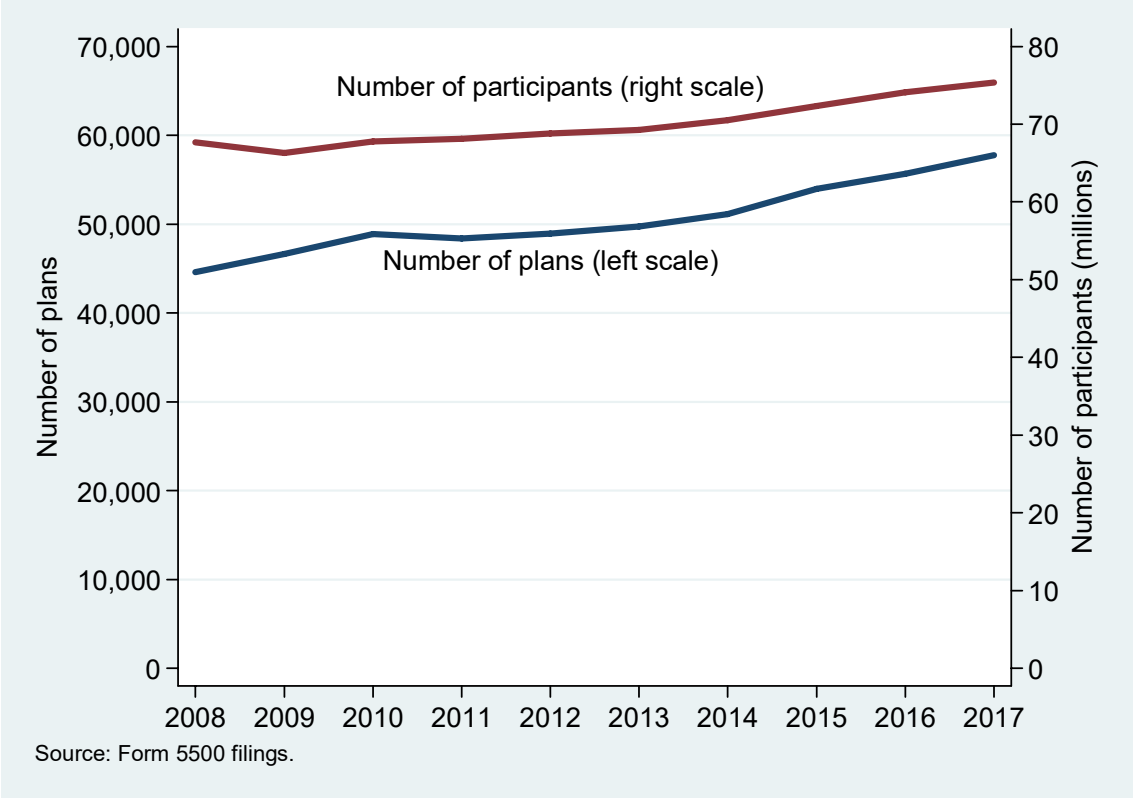

Table 2. Health Plans and Participants, by Statistical Year

Statistical year	Plans	Participants (millions)
2008	44,615	67.7
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

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 83%–88% range, this match rate was substantially 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
2008	44,615	86.2%	-7.6%	0.2%	8.2%
2009	46,624	79.8%	-12.0%	-2.1%	5.3%
2010	48,887	83.1%	-8.5%	-0.7%	6.1%
2011	48,407	87.9%	-6.8%	0.0%	7.0%
2012	48,943	87.9%	-5.8%	0.5%	8.1%
2013	49,747	87.6%	-5.9%	0.5%	8.1%
2014	51,143	86.5%	-5.5%	1.0%	9.1%
2015	53,958	84.6%	-5.6%	1.3%	9.7%
2016	55,669	85.6%	-6.0%	1.1%	9.5%
2017	57,750	85.3%	-5.7%	1.0%	9.1%

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 Capital IQ

Several of our research questions seek to understand the relationship between a plan sponsor's financial health and the plan's characteristics. To address these questions, we matched Form 5500 health plan filings with two sources of financial information: Form 990 and Capital IQ corporate financial data. We obtained plan sponsors' not-for-profit status from the Form 990 and some of their financial information from Capital IQ. This section describes our approach and the number of Form 5500 filers for which we achieved a statistical year 2017 match with the Form 990 or Capital IQ.

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.[9]

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 2017 includes 57,750 filings, of which 9,583 (16.6%) had sponsors that filed a Form 990 and were thus identified as not-for-profit. They accounted for 15.4 million participants, or 20.5% of the total under study.

Financial Metrics from Capital IQ

Our financial metrics information comes from Capital IQ, a provider of financial and other data for companies in the United States and elsewhere. Capital IQ culls Form 10-K filings and other sources to collect data on companies with public financial statements, which generally includes companies with publicly traded stock or bonds.[10] Our extract from its database contains information on the 2017 financial performance for about 9,100 companies with public financial information whose primary geographic location is in the United States.

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
- Operating income: revenue minus cost of revenues and total operating expenses
- Net income: operating income net of interest expense, unusual items, tax expense, and minority interest
- Cash from operations: total of net income, depreciation and amortization, and certain "other" items
- Total debt: short-term borrowings, long-term debt, and long-term capital leases
- 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
- Number of employees

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[9] 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 for which a Form 990 was located. 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 ultimate plan sponsor, not to the plan itself.

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

Matching Form 5500 Filings and Capital IQ Records

The only common field in Form 5500 health plan filings and the Capital IQ data available to us is the company/sponsor name. In part because of spelling variations, the match rate on name alone is low.

To obtain a better match rate, we used both EINs and company names. Form 5500 health plan data contain EINs, but the Capital IQ file available to us does not. Most Capital IQ records, however, report the company's 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. 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. The CIK can be used to link Capital IQ records to EINs from the SEC, and then the EIN can link the Capital IQ-SEC record to Form 5500 filings.[11]

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 ID. Finally, we matched Capital IQ records and Form 5500 health plan filings by cluster ID.

Corporate fiscal years need not correspond to health plan reporting periods. In an effort to accurately match a 2017 Form 5500 health plan filing with its sponsor's corresponding 2017 financial information, we required that the end date of the fiscal year captured in Capital IQ 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, 2017 with the Capital IQ financial information for fiscal year ending March 31, 2018.

Table 4 shows that we matched 3,826 plans, or 6.6% of the plans in the 2017 Form 5500 health plan data.[12] This is the set of companies that appear in our matched

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[11] Some issues arose in the linking process. While about 17% of Capital IQ records do not contain a CIK, 8% contain multiple CIKs. Also, some CIKs were found to be linked to multiple EINs. These were incorporated in the analysis.

[12] While this is a relatively small number, many companies that filed a Form 5500 are not represented in Capital IQ 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.

analyses below. The 3,826 plans covered 26.1 million participants, or 34.7% of all participants in the Form 5500 health plan data.

Table 4. Form 5500 Health Plan Filings Matched with Financial Information, by Plan Size (2017)

Number of participants	Plans			Participants		
	Number	Percent	Match rate	Number (millions)	Percent	Match rate
Zero	92	2.4%	5.8%	0.0		
1–99	119	3.1%	2.6%	0.0	0.0%	3.0%
100–199	403	10.6%†	2.1%	0.1	0.2%	2.2%
200–499	674	17.6%	3.9%	0.2	0.9%	4.2%
500–999	510	13.3%	7.7%	0.4	1.4%	7.9%
1,000–1,999	556	14.5%	14.5%	0.8	3.1%	14.8%
2,000–4,999	614	16.1%†	22.4%	2.0	7.7%	23.7%
5,000+	858	22.4%	39.2%	22.6*	86.7%	46.6%
Total	3,826	100.0%	6.6%	26.1	100.0%	34.7%

Source: Form 5500 health plan filings and Capital IQ data.
† Rounded up by less than 0.1% to ensure numbers sum to total.
* Rounded down by less than 0.1 million to ensure numbers sum to total.

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 39.2%. In other words, most were not matched, including those of hospitals and universities without public financials, but also of U.S. operations of large international firms with public financials. We restricted Capital IQ records to companies whose primary geographic location is in the United States because the financial health of a foreign parent company does not necessarily correspond to that of its U.S. subsidiary. Mismatches arose from differences between corporate names in Capital IQ (e.g., XYZ Holdings Inc) and sponsor names on Form 5500 filings (e.g., XYZ Inc). A 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.[13]

4. 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-

[13] The match rate for plans, 6.6%, is smaller than that achieved using 2016 data, 7.0%. This reduction mirrors a decrease in the number of companies with public financials. For example, the number of publicly listed companies dropped from 9,113 in 1997 to 5,734 in 2016 ("America's Roster of Public Companies Is Shrinking Before Our Eyes," *The Wall Street Journal*, January 6, 2017).

insured, fully insured, or mixed-funded. This section describes how we determine 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 determined 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 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").[14] In 2017, the average cost for single coverage was $6,690, so the algorithm requires annualized premiums to be at least 30% x $6,690 = $2,007 per covered person.[15]
>
> *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 Schedule H/I lists 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

[14] *Employer Health Benefits, 2017 Annual Survey.* Kaiser Family Foundation and Health Research & Educational Trust. Available at http://kff.org/health-costs/report/2017-employer-health-benefits-survey.
[15] The average cost of single coverage rose from $4,704 in 2008 to $6,690 in 2017.

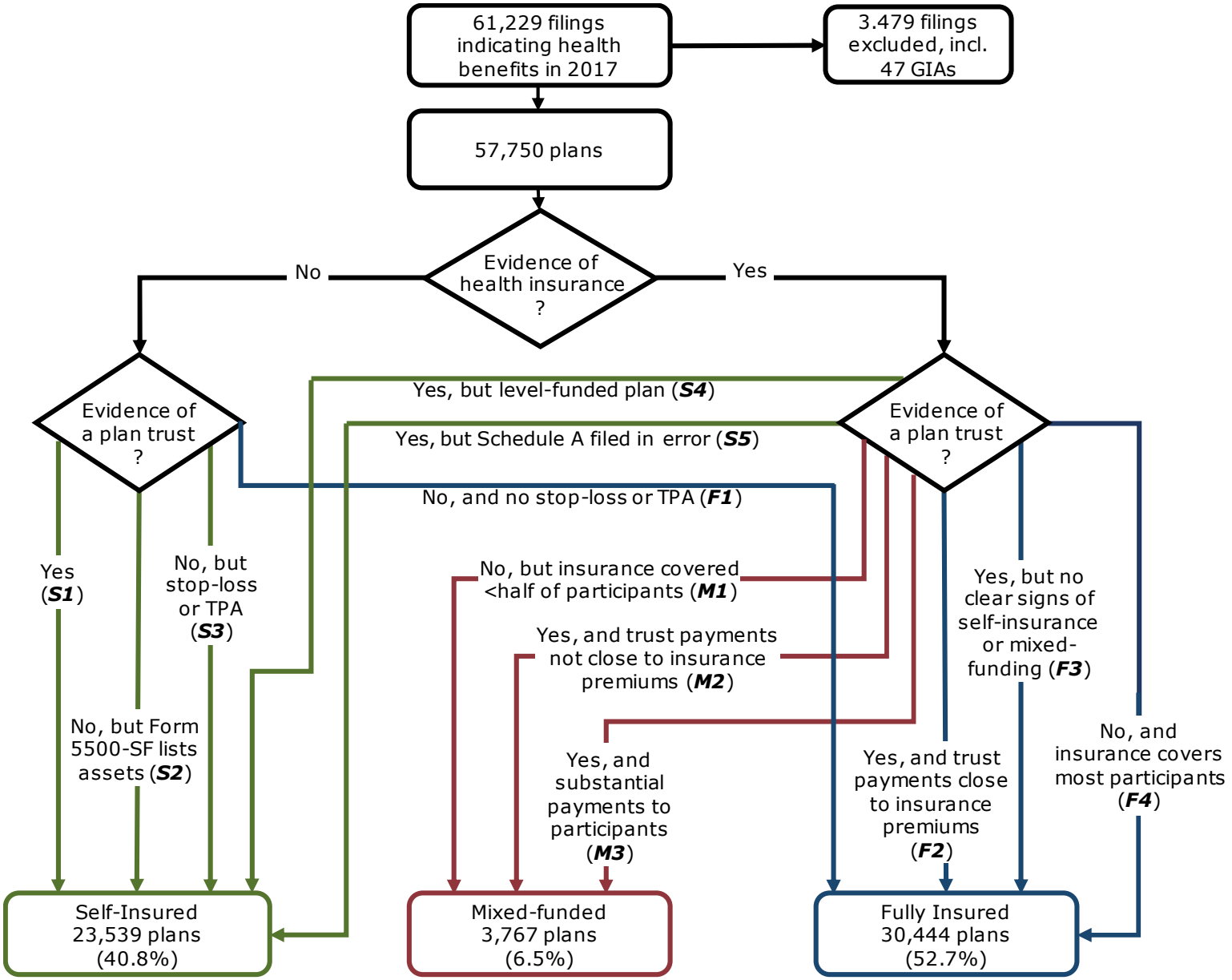
of electronic filing) or reported on compliance issues only. The algorithm accepts as evidence of a trust only Schedules H/I with at least some information on assets, liabilities, income, or expenses.

As shown in Figure 2, a total of 61,229 Form 5500 or 5500-SF filings reported health benefits in 2017. However, 3,479 filings were excluded from the analysis, mostly because the plan submitted multiple filings, was exempt from filing, reported no participants, likely did not sponsor health benefits as targeted by the ACA, or was submitted by a GIA (see Section 2 for more details).

The remaining 57,750 plans in 2017 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.

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.

Figure 2. Classification of Plans by Funding Mechanism



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.[16] 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 between100 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,[17] 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. Such plans are classified as self-insured. For details, see the discussion of the fifth refinement in Section 2 (page 4).

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[16] Small plans that filed a Form 5500-SF without financial information are presumed to be exempt from filing and excluded from the analysis.
[17] Some plans attached a Schedule A for administrative services only despite directives to the contrary (2017 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*, 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. For details, see the discussion of the fifth refinement in Section 2 (page 4).

Mixed-funded Plans

M1: Evidence of Health Insurance; No Evidence of a Plan Trust; Funding through Trust or General Assets and Insurance Covered Fewer Than One-Half 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 $2,007 per participant per year in 2017; see above). For details, see the discussion of the fifth refinement in Section 2 (page 4).

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.[18] An exception exists in the case of substantial trust payments directly to participants; see branch *M3*. Also, see the discussion of the fourth and sixth refinements in Section 2 (page 4).

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. For details, see the discussion of the fifth refinement in Section 2 (page 4).

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.

In total, 23,539 plans (40.8%) were identified as self-insured, 3,767 plans (6.5%) as mixed-funded, and 30,444 plans (52.7%) 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.

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[18] 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.

Issues in Defining Funding Mechanism

The information on Form 5500 may be incomplete, ambiguous, or inconsistent. 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, 6.5% of Form 5500 filing health plans contained both externally insured and self-insured health components in 2017. 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 Form 5500s 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,[19] whereas the definition of "participant" for Form 5500 explicitly excludes dependents (see 2017 Instructions for Form 5500). Second, because 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

[19] 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 that enter only the number of participants, even if there are more covered persons, e.g., due to family coverage.

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, 0.6% did not file a Schedule A with insurance contract details.
- Among plans that reported a funding or benefit arrangement through insurance, 1.4% filed one or more Schedules A without listing the type of benefit that the insurance contract covered. In such cases, unless they had also filed another Schedule A for health insurance, 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 our report on *Strengths and Limitations of Form 5500 Filings for Determining the Funding Mechanism of Employer-Provided Group Health Plans.*[20]

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.

5. ANALYSIS

This section documents the findings of our analyses of group health plans. (For GIAs, see Section 6.) 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.

Funding Mechanisms for Plans and Participants

For statistical year 2017, Figure 3 shows the overall distribution of funding mechanisms among the 57,750 health plans in the analysis: 52.7% of plans were fully insured, 40.8% were self-insured, and 6.5% were mixed-funded. As shown further below, smaller plans tend to be fully insured, while very large plans tend to be mixed-funded, so the funding distribution across participants is quite different than it is across plans: 19.3% of the 75.4 million participants were in fully insured plans, 45.7% were in self-insured plans, and 35.0% were in mixed-funded plans.

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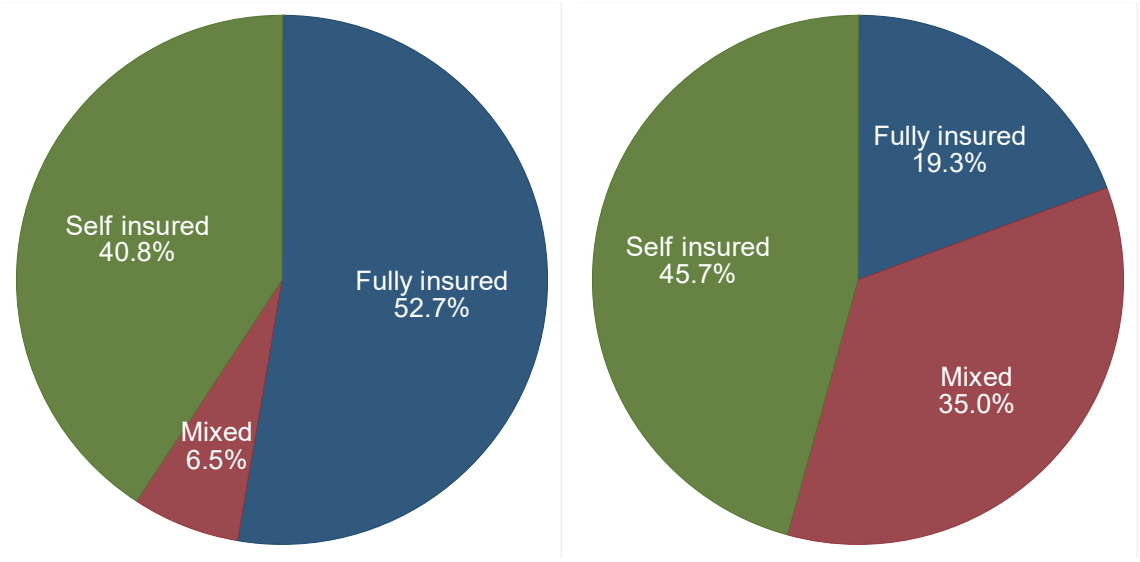
[20] Available at https://www.dol.gov/sites/default/files/ebsa/researchers/analysis/health-and-welfare/strengths-and-limitations-of-form-5500-filings-for-determining-the-funding-mechanism-of-employer-provided-group-health-plans.pdf.

Figure 3. Distribution of Funding Mechanism (2017)



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").[21] It found that 60% of covered workers in firms with three or more employees were in partially or completely self-funded plans in 2017.[22] 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% of plan participants are in mixed-funded plans. Given the limitations of Form 5500 health plan filings, our results are broadly consistent with those found in the 2017 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.[23] 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, 37% of establishments with 100–999 employees self-insured at least one plan in 2017, whereas we found also that 37% of plans with 100–999 participants were self-insured or mixed-funded (calculated from the

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[21] *Employer Health Benefits, 2017 Annual Survey.* Kaiser Family Foundation and Health Research & Educational Trust. Available at http://kff.org/health-costs/report/2017-employer-health-benefits-survey.

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

[23] *Medical Expenditure Panel Survey Insurance Component Chartbook 2017*. Rockville, MD: Agency for Healthcare Research and Quality, October 2018. AHRQ Publication No. 18(19)-0034. Available at https://meps.ahrq.gov/data_files/publications/cb22/cb22.pdf.

numbers underlying Table 5 below). Weighted by employees (MEPS-IC) or participants (Form 5500), the shares are 42% and 45%, respectively. For larger establishments (or plans) with 1,000 or more employees (or participants), 79% self-insured at least one plan, according to the MEPS-IC, and 81% were self-insured or mixed-funded according to Form 5500 filings. Weighted by employees (MEPS-IC) or participants (Form 5500), the shares are 82% and 88%, respectively.

Funding Mechanisms by Plan Size

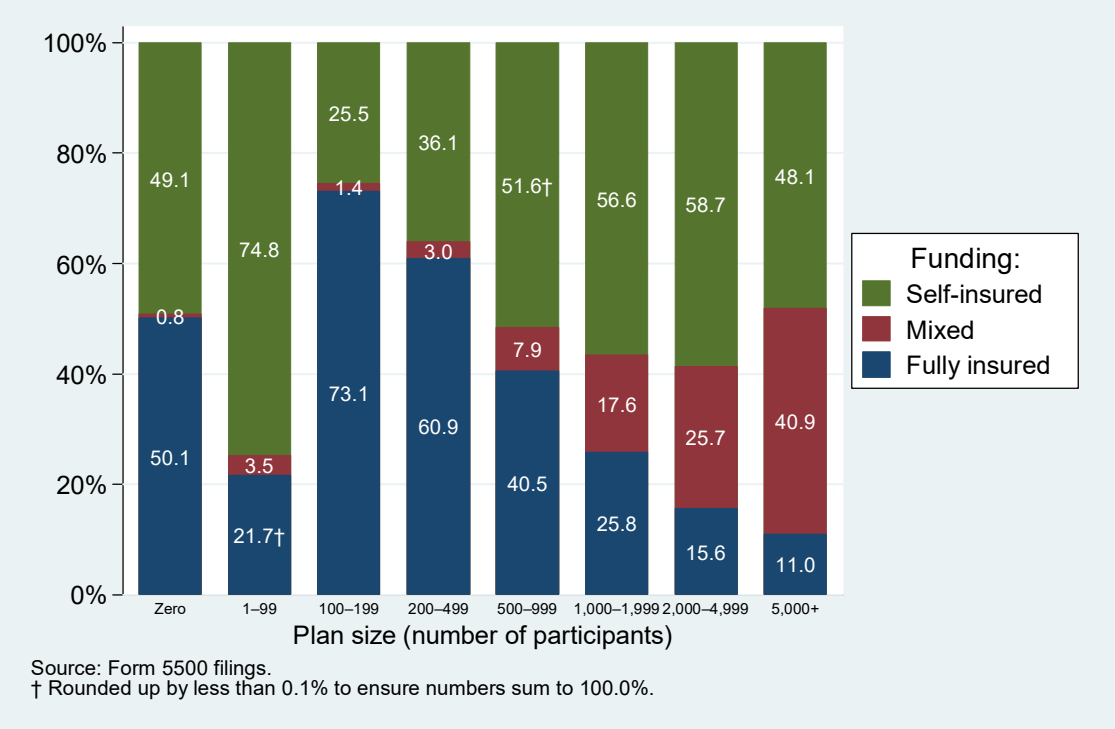
Figure 4 shows the distribution of funding mechanism by plan size for health plans in 2017. Most small plans are identified as self-insured in our study, but this is presumably due to the select nature of small plans in our analysis. Group health plans with fewer than 100 participants that are not MEWAs 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.[24,25] Most small plans are not required to file a Form 5500 and, therefore, are not included in this analysis.[26] 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 89.0%, compared with 26.9% among plans with 100–199 participants.

[24] 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.

[25] 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.

[26] See footnote 4 on page 6.

Figure 4. Distribution of Funding Mechanism, by Plan Size (2017)



Source: Form 5500 filings.
† Rounded up by less than 0.1% to ensure numbers sum to 100.0%.

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

Table 5. Distribution of Funding Mechanism, by Plan Size (2017)

Participants	Plans			Participants		
in plan	Fully insured	Mixed	Self-insured	Fully insured	Mixed	Self-insured
Zero	50.1%	0.8%	49.1%			
1–99	21.7%†	3.5%	74.8%	41.8%	4.5%*	53.7%
100–199	73.1%	1.4%	25.5%	72.7%	1.4%	25.9%
200–499	60.9%	3.0%	36.1%	59.3%	3.3%	37.4%
500–999	40.5%	7.9%	51.6%†	39.7%	8.3%	52.0%*
1,000–1,999	25.8%	17.6%	56.6%	25.3%	18.2%	56.5%
2,000–4,999	15.6%	25.7%	58.7%	14.8%	26.7%	58.5%
5,000+	11.0%	40.9%	48.1%	10.0%	46.3%	43.7%
All	52.7%	6.5%	40.8%	19.3%	35.0%	45.7%

Source: Form 5500 health plan filings.
* Rounded down by less than 0.1% to ensure numbers sum to 100.0%.
† Rounded up by less than 0.1% to ensure numbers sum to 100.0%.

The finding that larger plans are more likely to adopt mixed-funding or self-insurance is consistent with the 2017 KFF/HRET Survey. That study found that 15% of covered workers at firms with 3–199 employees were covered by self-insured plans in 2017, 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 2008–2017. The percentage of plans that were self-insured or mixed-funded (i.e., plans with a self-insured component) declined from 46.0% in 2008 to 45.1% in 2009, was approximately flat through 2013, and then slightly increased to 47.3% in 2017. While self-insurance among plans retreated over the first couple of years of the preceding decade, the share of participants in health plans that self-insured or were mixed-funded increased by about 5 percentage points from 76.0% in 2008 to 80.6% in 2012, and remained approximately flat thereafter.[27] In comparison, the KFF/HRET Survey documented a similar increase toward self-insurance from 2008 to 2013 and, apart from a one-year blip in 2015, an approximately flat share thereafter. Thus, the overall trend toward self-insurance among participants—which began well before 2008—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

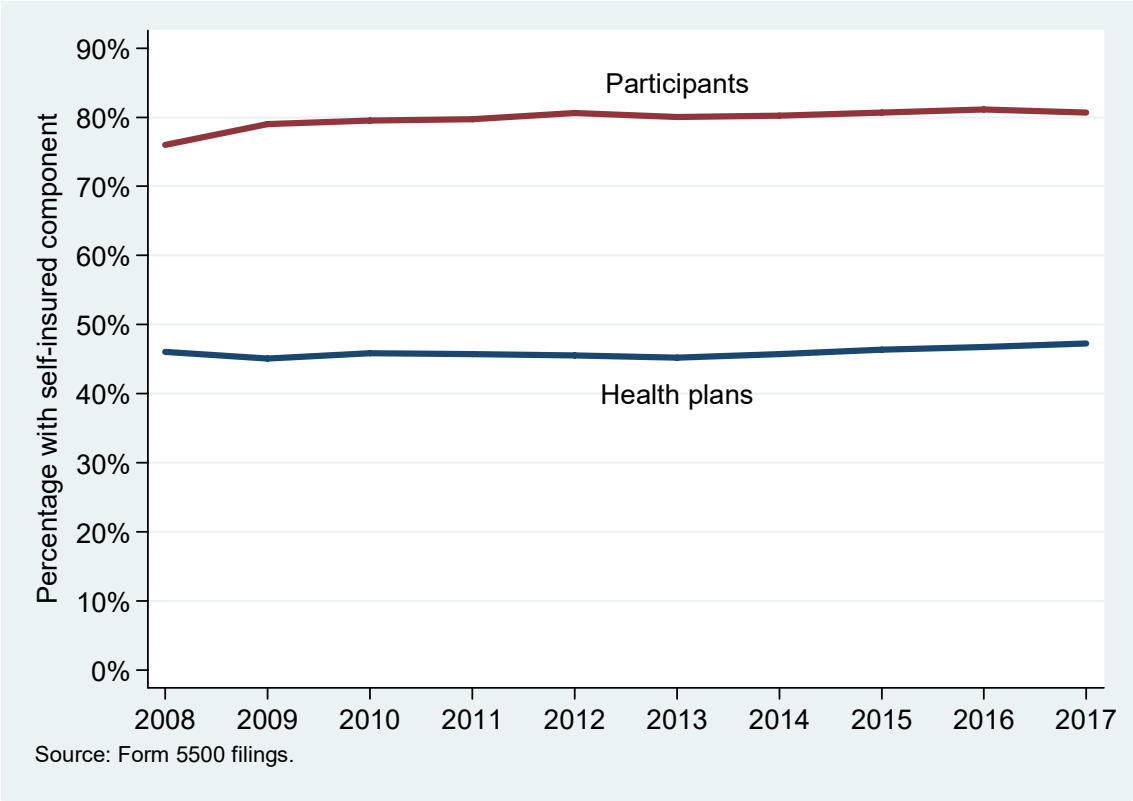


Table 6 provides additional details on the percentages underlying Figure 5, with separate series for the mixed-funded and self-insured categories. Table 7 further

[27] As also noted in past reports, the divergence of plan- and participant-weighted self-insurance rates in 2008–2009 may be explained by a lower prevalence of self-insurance among plans with 100–499 participants, a higher prevalence among plans with 500 or more participants, and fewer (mostly self-insured) plans with 0–99 participants. For further discussion, see the 2018 version of this report.

shows the corresponding plan and participant counts. The total number of health plans in each year was between approximately 44,000 and 58,000 and the number of participants was between approximately 66 million and 75 million.

Table 6. Distribution of Funding Mechanism, by Statistical Year

Statistical	Plans			Participants		
year	Fully insured	Mixed	Self-insured	Fully insured	Mixed	Self-insured
2008	54.0%	6.9%	39.1%	24.0%	30.7%	45.3%
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%	34.8%*	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%	44.8%*
2014	54.3%	6.9%	38.8%*	19.8%	33.6%	46.6%
2015	53.6%	7.0%	39.4%	19.3%*	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%

Source: Form 5500 health plan filings.

* Rounded down by less than 0.1% to ensure numbers sum to 100.0%.

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

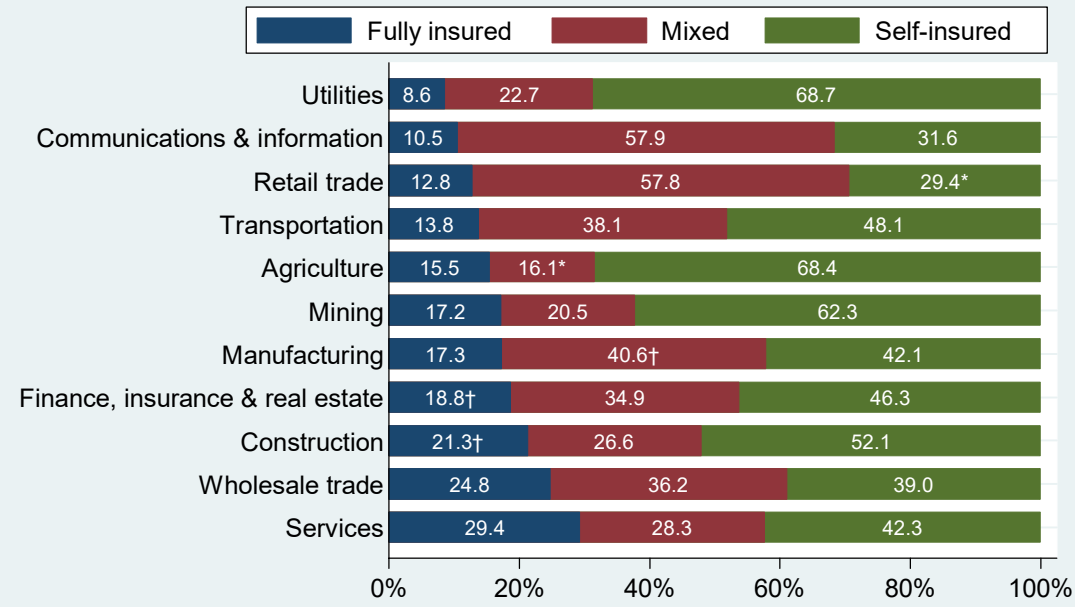
Statistical	Plans			Participants (millions)		
year	Fully insured	Mixed	Self-insured	Fully insured	Mixed	Self-insured
2008	24,081	3,100	17,434	16.2	20.8	30.6
2009	25,598	3,252	17,774	13.9	23.1	29.3
2010	26,471	3,349	19,067	13.9	23.9	29.9
2011	26,269	3,402	18,736	13.8	23.8	30.6
2012	26,665	3,389	18,889	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

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 retail trade 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. For example, mixed-funding is especially prevalent in the communications & information and retail trade sectors, suggesting that very large firms are prevalent in those industries.

Figure 6. Participant-Weighted Distribution of Funding Mechanism, by Industry (2017)



Source: Form 5500 filings.
* Rounded down by less than 0.1% to ensure numbers sum to 100.0%.
† Rounded up by less than 0.1% to ensure numbers sum to 100.0%.

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.[28]

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.[29]

[28] For the life cycle perspective in this section, we follow filings of individual plans over time. In order to minimize gaps, the analysis includes voluntary filings and filings in which no participants were reported.
[29] Some plans never checked that 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.

- *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.[30] 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."[31]
- *Established*—This category captures the middle of a plan's life cycle. Plans that were neither "new" nor "ceased filing" are labeled "established" plans.

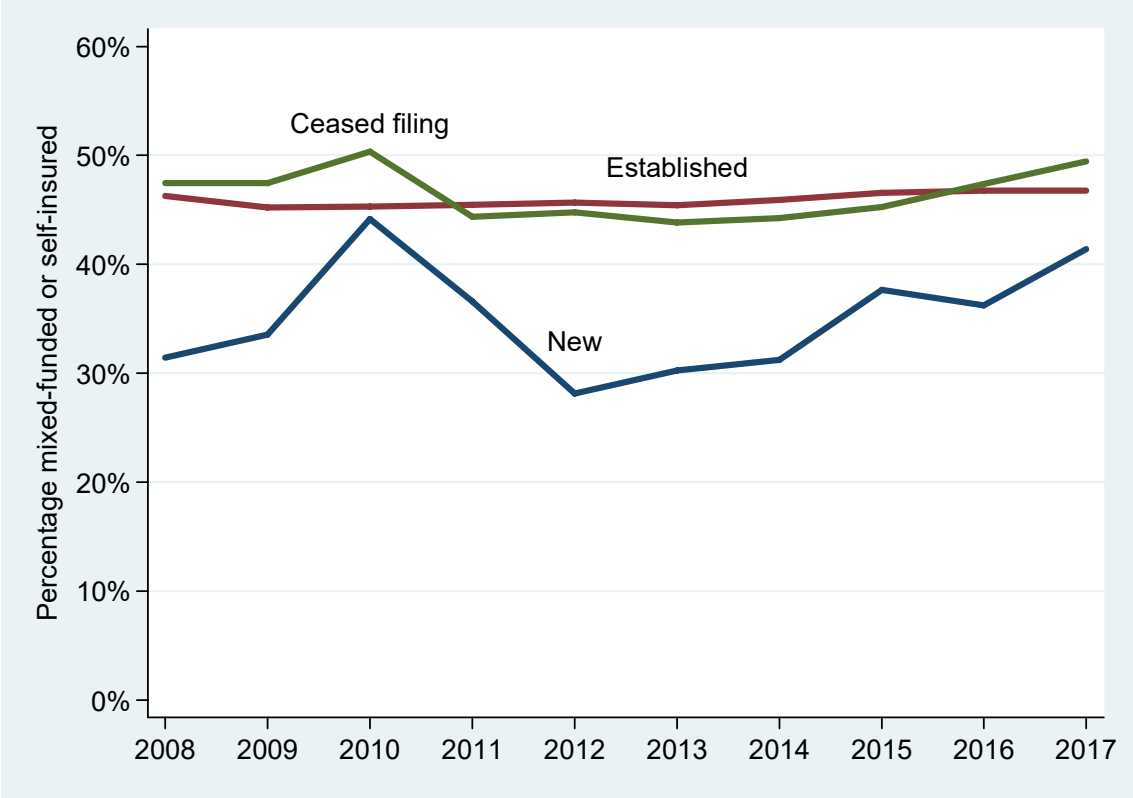
We will discuss plan-level and participant-level trends separately. Starting with plan-level developments, Figure 7 shows the mixed-funded or self-insured share of new plans, established plans, and plans that ceased filing. (Since most plans are established, the overall share is very close to the share among established plans.) New plans were more often fully insured than other plans, but the self-insurance gap between new plans and other plans narrowed in recent years, which helps explain the slight reduction in full insurance in recent years (Table 6).[32]

[30] 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.)

[31] 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.

[32] The number of new plans in 2017 was 5,028: 2,947 fully insured plans (58.6%), 114 mixed-funded plans (2.3%), and 1,967 self-insured plans (39.1%). New plans covered 1,660,161 participants: 684,546 in fully insured plans (41.2%), 331,104 in mixed-funded plans (20.0%), and 644,511 in self-insured plans (38.8%). (The share of participants in mixed-funded plans, 20.0%, was rounded up by less than 0.1% to ensure percentages sum to 100.0%.)

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

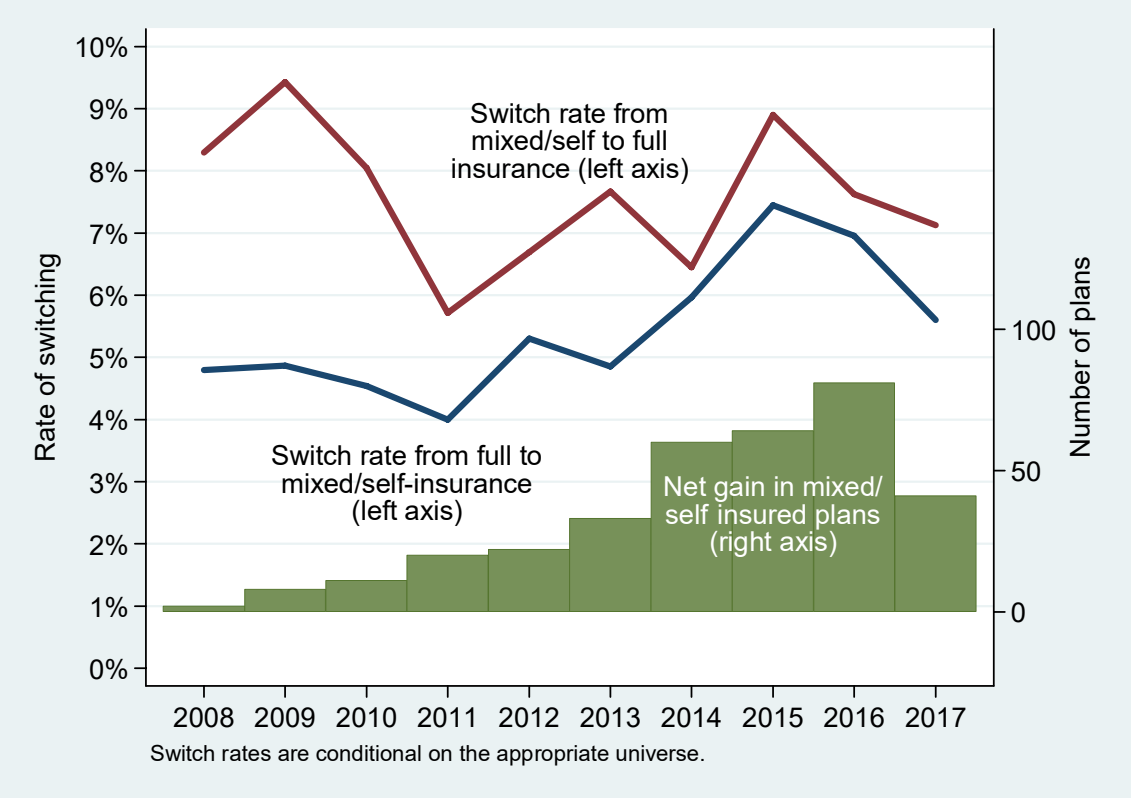


Changes in Mixed/Self-Insurance Due to Plans Switching Funding Mechanism

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 (i.e., funding mechanism changes between plans' first and second filings) for new plans. Mixed-funded or self-insured plans 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). For example, 7.1% of plans that started in 2016 as mixed-funded or self-insured had switched to full insurance by 2017, compared with 5.6% of fully insured plans that had switched to mixed-funding or self-insurance. This does *not* mean that the net flow of plans was toward full insurance: Figure 7 above showed that most new plans were fully insured, so despite lower switching rates, 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).

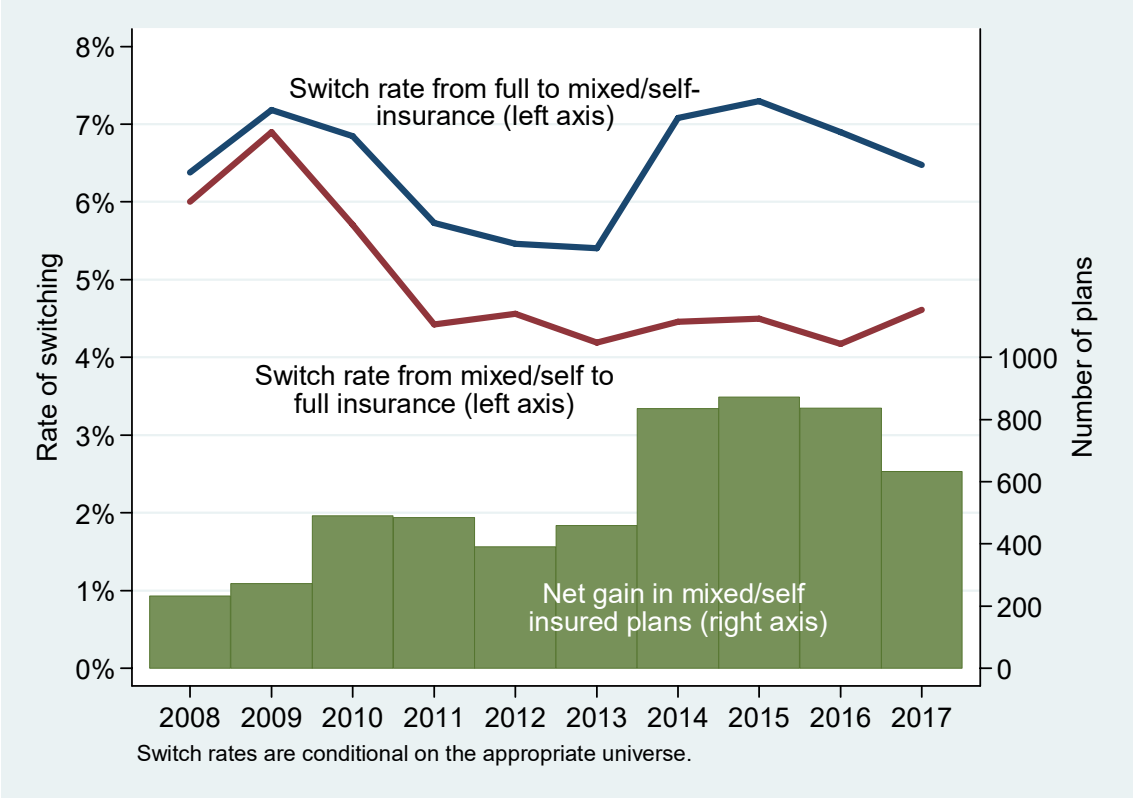
Figure 8. Rates of Funding Switching among New Plans and the Resulting Net Gain in Plans with a Self-Insured Component, by Statistical Year



Similarly, Figure 9 shows the historical switch rates for established plans and the resulting net flow of plans toward self-insurance. In contrast to patterns among new plans, switch rates were higher toward self-insurance (blue line) than away from it (red line), especially since 2014. For example, 4.6% of established plans that in 2016 were mixed-funded or self-insured had switched to full insurance by 2017, compared with 6.5% of fully insured plans that had switched to mixed-funding or self-insurance.[33]

[33] Some plans appear to switch funding mechanisms more often than is plausible. In some cases, the issue is that two plans—one insured, one self-insured—are reported with the same EIN and plan number (PN). In other cases, incomplete or ambiguous information on Form 5500 filings may result in conflicting categorizations from one year to the next. The switch rates in Figure 9 may thus overstate true switch rates, but the net effect on plan flows should be approximately zero.

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 2014–2017.

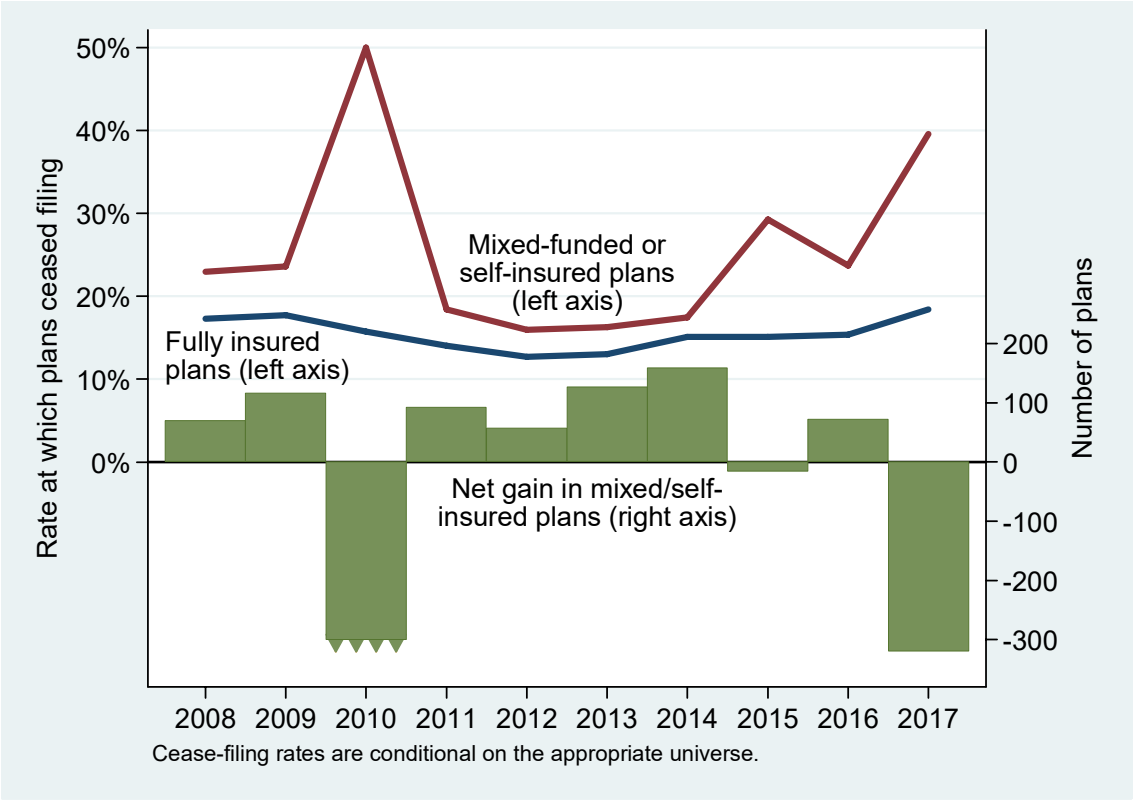
Figure 5 showed that the fully insured share of health plans was relatively flat until 2013, and indeed the net flows of switching plans were relatively small. Starting in 2014, net flows toward self-insurance became larger, and indeed the prevalence of mixed-funding or self-insurance increased slightly.

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 2008 to 2017, mixed-funded or self-insured new plans were more likely to cease filing (red line) than their fully insured counterparts (blue line). However, despite lower termination rates, more fully insured plans terminated because most new plans were fully insured. Put differently, on net, more

plans with a self-insured component remained (green bars), except in 2010, 2015, and 2017.[34]

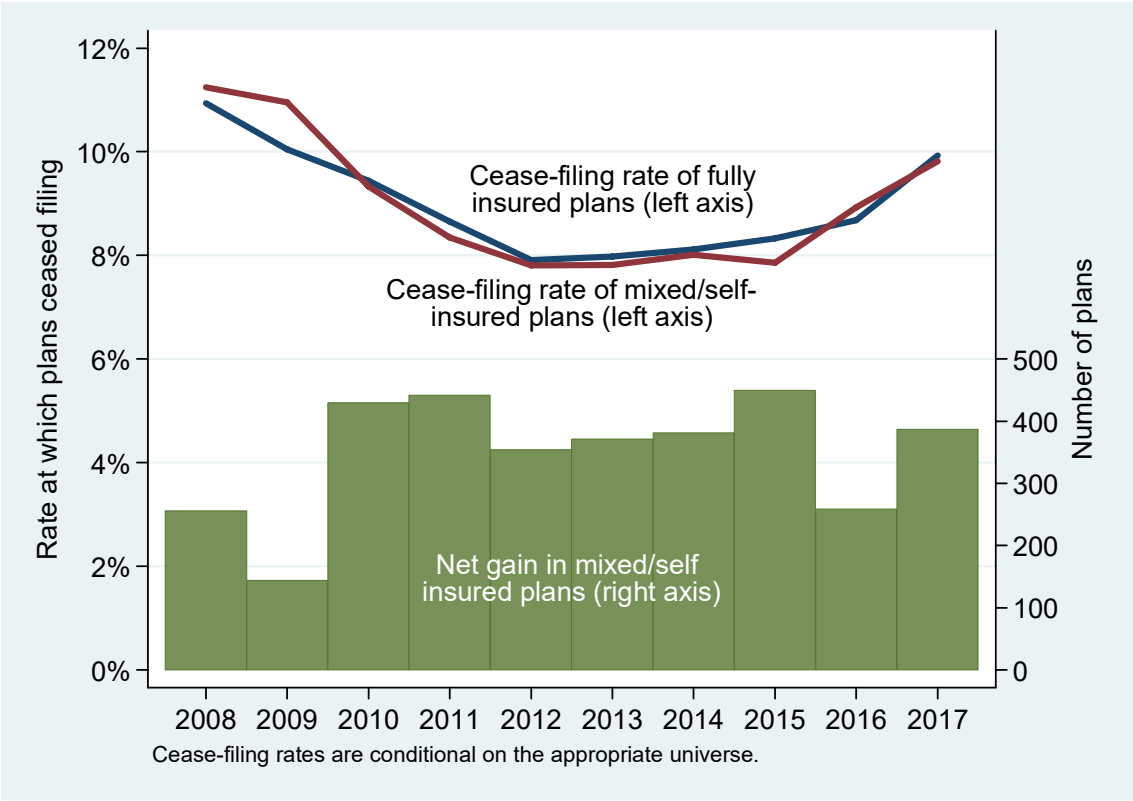
Figure 10. Rates at Which New Plans Ceased Filing, by Statistical Year



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, the net effect was an increase in the prevalence of mixed/self-insured plans (green bars).

[34] The spike in 2010 appears to be an anomaly due to a single administrator who submitted more than 800 Form 5500 filings for 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. In 2017, a self-insured non-plan MEWA formed, with its more than 500 contributing employers each filing a Form 5500-SF. Each filing was considered to have "ceased filing" because they responded affirmatively to 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 2018 filings (outside the scope of this report) suggested that they remained operational, and continued to respond affirmatively to Line 13b. Excluding the plan filings associated with the MEWA, the termination rate of mixed-funded and self-insured plans would have decreased to 21% in 2017, and the net flow would have been (positive) 203 plans.

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.

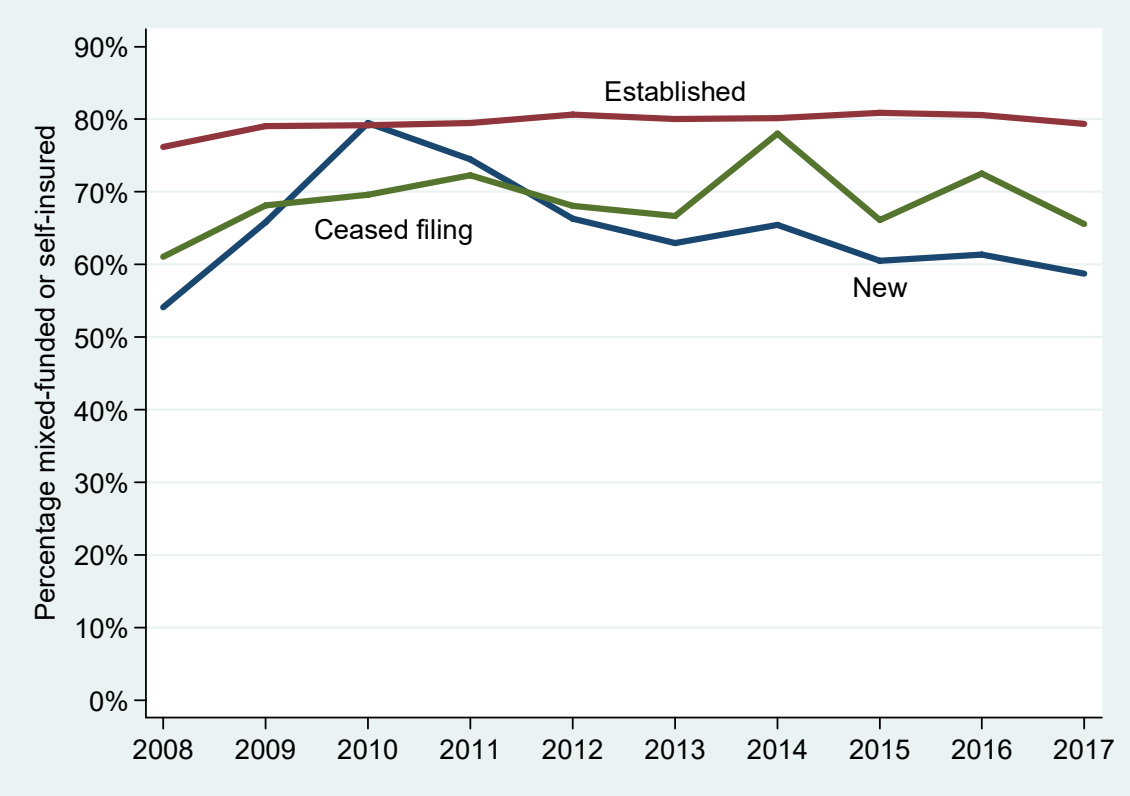
The ACA was enacted in 2010 and many of its provisions became effective in 2014, which coincides with increased self-insurance among new plans and increased net switching toward self-insurance among all plans. While our analysis of the trends documented above is agnostic with respect to causality, it is possible that the ACA prompted elevated interest in self-insurance. We emphasize that the changes were moderate; the share of plans with a self-insured component rose from 45.2% in 2013 to 47.3% in 2017 (see Figure 5 and Table 6).

Small and Large Plans Behaved Differently

The discussion above generally ignored plan size. However, while the overall fraction of plans with a self-insured component was approximately flat from 2008 to 2013, the participant-weighted fraction increased. Since 2013, plans have migrated slightly toward self-insurance, but the participant-weighted fraction was following an approximately flat trajectory. Indeed, small and large plans followed different patterns, 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 2008 to 2017. It is the participant-weighted counterpart of Figure 7. Mirroring the pattern among plans, participants in new plans were generally less likely to be in mixed-funded or self-insured plans than those in established plans. However unlike in Figure 7, participants in plans that ceased filing were also less likely to be in mixed-funded or self-insured plans than those in established plans, pointing at funding mechanism switching as the main cause of the general upward trend in self-insurance among participants.

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 large plans (Table 1 and Table 8).[35] We restrict the analysis to the most recent five years (2013–2017). Only 1.1% of new plans covered 5,000 or more participants, but those plans accounted for 43.0% of participants in all new plans. Among established plans, 64.8% 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.

[35] Table 8 shows that 1.1% of new plans in 2013–2017 had 5,000 or more participants. 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 8. Distribution of Health Plans and Plan Participants, by Plan Participant Counts (2013–2017)

Participants	New Plans		Established Plans		Plans That Ceased Filing	
in plan (EOY)	Plans	Participants	Plans	Participants	Plans	Participants
Zero	3.1%	0.0%	0.4%	0.0%	33.5%	0.0%
1–99	18.2%	1.5%	8.0%	0.3%	21.2%	3.0%
100–199	50.6%	15.9%	31.2%	3.2%	21.0%	8.1%
200–499	18.3%	12.5%	31.6%	7.0%	14.2%	12.0%
500–999	4.7%	7.4%	12.3%	6.1%	4.9%	9.3%
1,000–1,999	2.4%	7.9%	7.2%	7.2%	2.6%	9.9%
2,000–4,999	1.6%	11.8%	5.2%	11.4%	1.7%	14.6%
5,000+	1.1%	43.0%	4.1%	64.8%	0.9%	43.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Form 5500 health plan filings.

Table 9 shows the annual rate of funding mechanism switching among new and established plans. Overall, 6.2% of plans that started as fully insured switched to mixed-funded or self-insured during their second reporting period, but large plans were much more likely to make that switch than small plans. For example, 21% of fully insured new plans with 5,000 or more participants changed funding mechanism, compared with less than 8% of plans with 1–500 participants. Conversely, 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 large plans, the implication is that, on net, participants in both new and established plans migrated to mixed-funded or self-insured plans.

Table 9. Annual Rates of Funding Switching among New and Established Plans, by Plan Size (2013–2017)

	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	11.8%	9.6%	10.8%	9.4%
1–99	7.5%	2.1%	5.9%	3.1%
100–199	4.8%	12.7%	4.6%	7.6%
200–499	6.4%	9.9%	6.2%	5.5%
500–999	12.5%	6.6%	9.9%	3.3%
1,000–1,999	13.7%	5.7%	13.0%	2.3%
2,000–4,999	17.5%	2.7%	16.1%	1.5%
5,000+	21.2%	5.0%	16.5%	1.7%
Total	6.2%	7.6%	6.6%	4.4%

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 10), with small plans generally more likely to stop filing in 2013–2017 than large plans.[36] 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 10. Annual Rates at Which New and Established Plans Ceased Filing, by Plan Size (2012–2016)

	New Plans		Established Plans	
BOY plan participants	Mixed or self-insured	Fully insured	Mixed or self-insured	Fully insured
Zero	83.4%	74.1%	44.3%	34.8%
1–99	48.7%	33.9%	16.1%	19.0%
100–199	19.0%	15.6%	11.1%	9.7%
200–499	13.4%	9.9%	7.2%	6.9%
500–999	13.7%	11.1%	6.8%	6.1%
1,000–1,999	11.2%	11.6%	5.9%	6.3%
2,000–4,999	5.1%	11.3%	5.2%	6.0%
5,000+	7.4%	16.2%	3.9%	5.0%
Total	28.3%	15.6%	8.5%	8.6%

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 large mixed-funded or self-insured plans.

Stop-Loss Coverage of Plans

Table 11 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.[37] 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 11 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 11 understates the prevalence of stop-loss insurance.[38]

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[36] Given the focus on the end of the life cycle, Table 10 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 explain their high cease-filing rates. (Recall that voluntary filings are included in the current section in order to observe as much as possible of their life cycle; voluntary filings are excluded from the analysis in other sections.)

[37] Schedule A is not required to be attached to the Form 5500-SF. Our analysis of stop-loss coverage excludes Form 5500-SF filings.

[38] 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-

In 2017, 19.9% of mixed-funded and 23.7% of self-insured plans reported stop-loss coverage on a Schedule A, down from 2008 rates of 29.6% and 28.1%, respectively. Reported stop-loss coverage of mixed-funded plans decreased until approximately 2014 and appears to have stabilized since then. Conversely, the trend among self-insured plans—downward until 2010 and fairly stable until 2015—resumed its downward direction in 2016 and 2017. Weighted by the number of participants, 15.7% of mixed-funded and 18.7% of self-insured plans reported stop-loss coverage for 2017, indicating that smaller plans are more likely to report stop-loss insurance than larger plans (also see Figure 13 below). We note that the participant-weighted figures are historically more volatile than unweighted figures.[39,40]

Table 11. Percentage of Health Plans Reporting Stop-Loss Insurance, by Funding Mechanism and Statistical Year

Statistical	Plans		Participants	
year	Mixed	Self-insured	Mixed	Self-insured
2008	29.6%	28.1%	13.8%	15.1%
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%

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

Table 12 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

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 2017 KFF/HRET study documented that 58% of participants in self-funded plans were in a plan that had purchased stop-loss insurance in 2017. It should also be noted that reported stop-loss insurance does not necessarily relate to health benefits but could protect other self-insured benefits, such as disability benefits.

[39] A single, very large, self-insured plan with about 1.8 million participants reported stop-loss insurance in 2014–2017, but not in other years. As a result, the fraction of participants in self-insured plans with reported stop-loss insurance is elevated in those years.

[40] 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, and 58% in 2017.

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.[41,42]

Table 12. Per Person Annual Premiums for Stop-Loss Insurance

Statistical	Mixed-funded ($)			Self-insured ($)		
year	25th pct	Median	75th pct	25th pct	Median	75th pct
2008	153	419	1,164	201	522	925
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

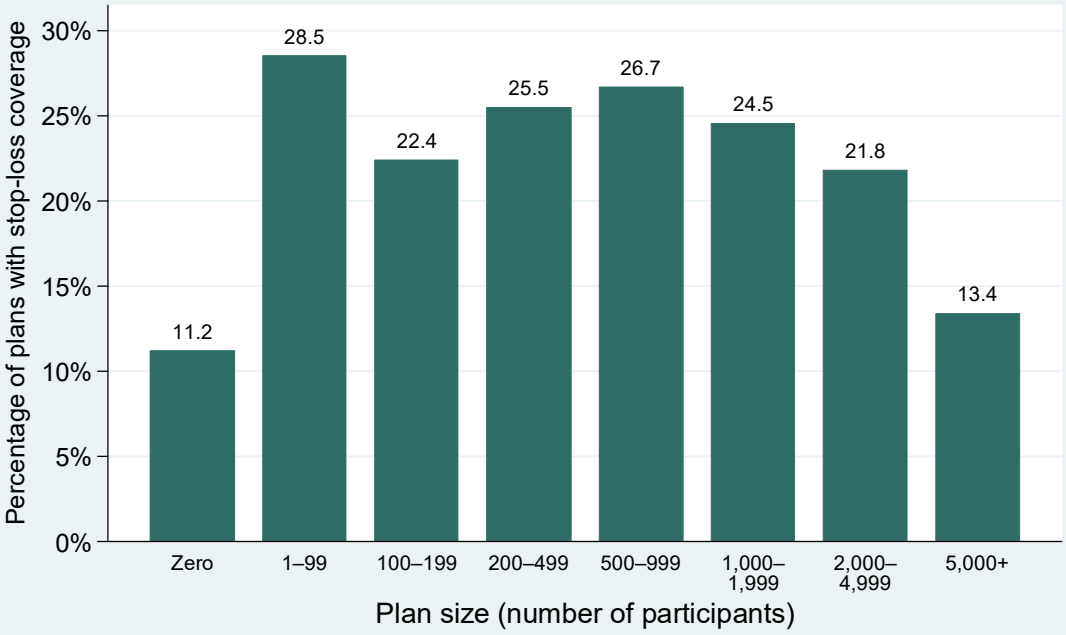
Source: Form 5500 health plan filings.
Note: Reflects stop-loss coverage as reported on Form 5500.

Figure 13 shows the rate of stop-loss coverage among self-insured plans by plan size. With the exception of plans with 1–99 participants, stop-loss coverage increases with plan size up to 500–999 participants and decreases with plan size among larger plans.

[41] Per person premiums were calculated from Schedules A that specified stop-loss coverage only or in combination with health benefits. Approximately 18% 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.

[42] 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, $1,611 per person per year in 2017, was well below market rates for high-deductible health plans, suggesting this issue does not substantially affect the results. According to the 2017 KFF/HRET Survey, the average premium for single coverage on high-deductible health plans was $6,024 in 2017.

Figure 13. Self-Insured Health Plans' Rate of Stop-Loss Coverage, by Plan Size (2017)



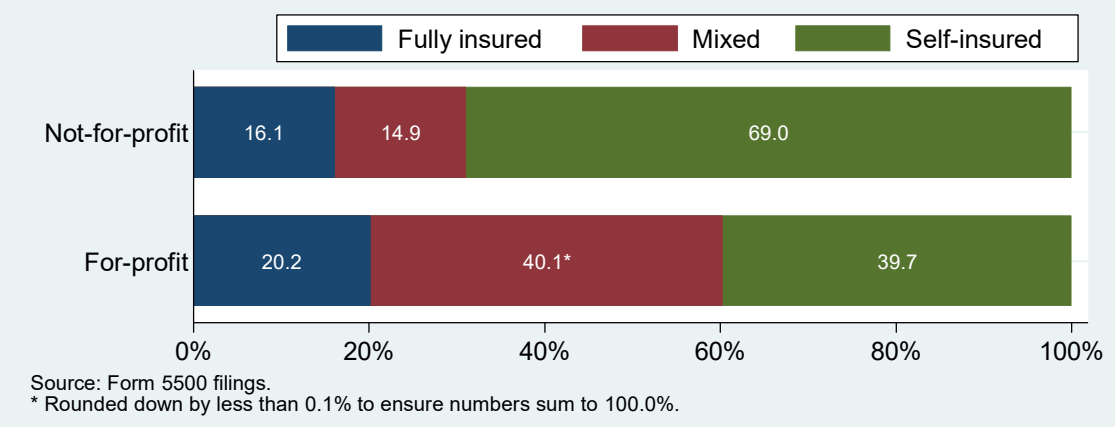
Source: Form 5500 filings.
Note: Reflects stop-loss coverage as reported on Form 5500; see text.

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 2017 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. One-in-six plans (16.6%) were found to be sponsored by a not-for-profit entity. Their plans covered 20.5% of participants, i.e., they tend to be larger than those of for-profit firms. 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: 69.0% of participants in not-for-profit entity plans were covered by a self-insured plan, compared with 39.7% of participants in for-profit firms' plans. Conversely, mixed funding was far less prevalent at not-for-profit entities than at for-profit firms.

Figure 14. Participant-Weighted Distribution of Funding Mechanism, by For-Profit and Not-for-Profit Sponsors (2017)



Source: Form 5500 filings.
* Rounded down by less than 0.1% to ensure numbers sum to 100.0%.

Focusing on the subset of Form 5500 health plan filers that could be matched to financial information in Capital IQ, Table 13 presents 2017 information on company size, as measured by revenue, market capitalization, net income, 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 13. Characteristics of Companies Matched to Form 5500 Health Plan Filings, by Funding Mechanism (2017)

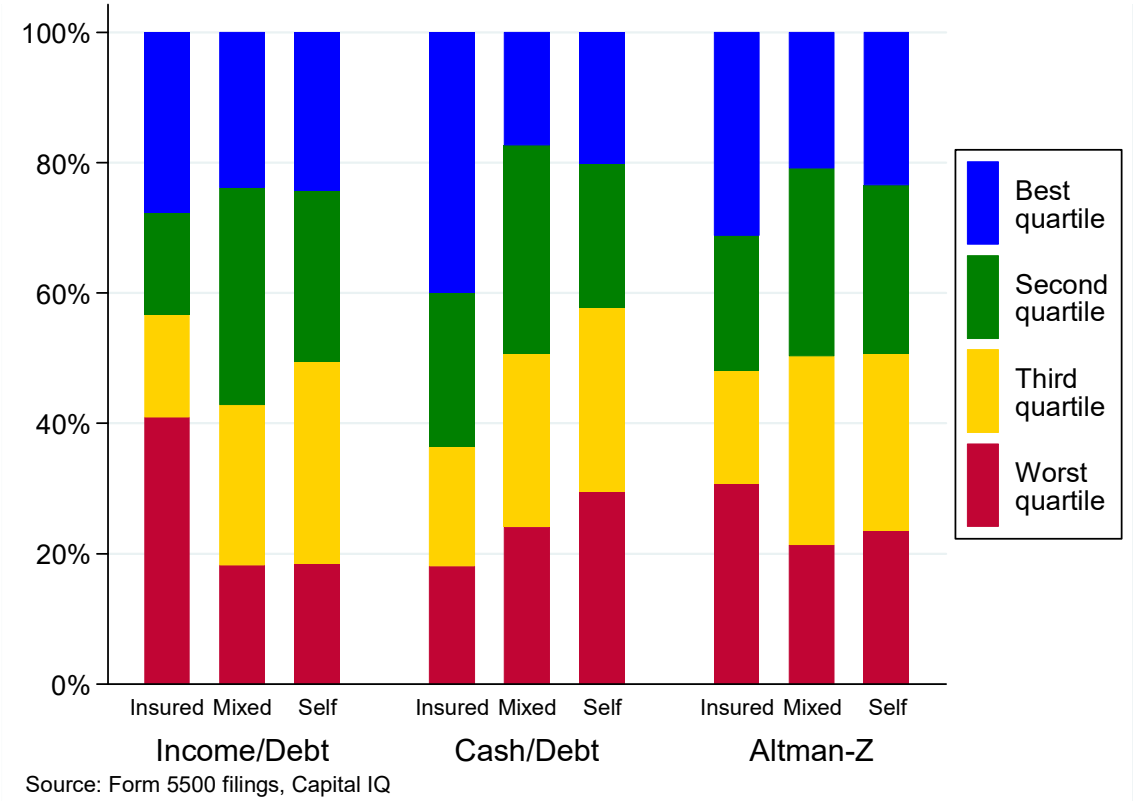
		All	Fully insured	Mixed	Self-insured
Revenue (in $ millions)	25 pct	379	113	1,499	596
	Median	1,570	344	4,246	1,736
	75 pct	6,690	1,680	12,312	6,940
	# Obs	3,826	1,096	928	1,802
Market capitalization (in $ millions)	25 pct	692	241	2,091	815
	Median	2,825	891	6,460	3,222
	75 pct	12,053	3,737	23,925	12,569
	# Obs	3,290	942	811	1,537
Net income (in $ millions)	25 pct	4	-12	31	15
	Median	92	16	243	116
	75 pct	443	135	931	475
	# Obs	3,824	1,094	928	1,802
Number of employees	25 pct	637	230	3,200	1,085
	Median	3,607	729	10,500	4,372
	75 pct	16,000	3,880	31,000	16,200
	# Obs	3,821	1,094	927	1,800

Source: Form 5500 health plan filings and Capital IQ data.

Figure 15 presents three metrics of the financial health of matched companies: the ratio of operating income over total debt, the ratio of cash and cash equivalent

holdings over total debt, and the Altman Z-Score.[43] 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 operating income over total debt. If financial health were unrelated to funding mechanisms, all bars would be equal. Instead, 41% of fully insured sponsors were in the bottom quartile, compared with 18% of mixed-funded and 19% of self-insured sponsors; see the red bars in the left portion of Figure 15. Based on how frequently their ratios of operating income over 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.

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



Source: Form 5500 filings, Capital IQ

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

[43] 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 1.69, 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.

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. 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 or self-insured plans.

Table 14 shows the percentages and sample sizes corresponding to Figure 15.

Table 14. Financial Health of Companies Matched to Form 5500 Health Plan Filings, by Funding Mechanism (2017)

		All	Fully insured	Mixed	Self-insured
Operating income over total debt	Best quartile	25.0%	27.4%	23.8%	24.1%
	Second quartile	25.0%	15.9%	33.3%	26.2%
	Third quartile	25.0%	15.7%	24.6%	30.9%
	Worst quartile	25.0%	41.0%	18.2%	18.8%
	# Obs	3,821	1,094	927	1,800
Cash (equivalent) holdings over total debt	Best quartile	24.9%	39.6%	17.4%	20.0%
	Second quartile	25.1%	24.1%	31.6%	22.3%
	Third quartile	25.0%	18.3%	27.0%	28.0%
	Worst quartile	25.0%	18.0%	24.1%	29.7%
	# Obs	3,816	1,092	927	1,797
Altman Z-Score	Best quartile	25.0%	31.2%	20.9%	23.4%
	Second quartile	25.0%	20.5%	28.8%	25.5%
	Third quartile	24.8%	17.2%	29.0%	27.2%
	Worst quartile	25.2%	31.1%	21.3%	23.9%
	# Obs	2,693	762	732	1,199

Source: Form 5500 health plan filings and Capital IQ data.

6. 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. By definition, GIAs are fully insured.

For 2017, 46 arrangements covering about 313,000 participants filed a Form 5500 as a GIA,[44] compared with 57,750 group health plans that sponsored 75.4 million participants. GIAs tend to be larger than group health plans. For example, 84.8% of GIAs covered 500 or more participants, compared with 26.6% 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 34.8% of GIAs reported a "Miscellaneous" industry or none at all. As many as 37.0% are

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

active in the finance, insurance, and real estate sector, and their participants account for 64.1% of all GIA participants, compared with just 10.5% of group health plans and 11.0% of participants in such plans.

7. 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 offer an opportunity 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 has not changed much since last year, but some issues are noteworthy. At the plan level, self-insurance or mixed-funding increased slightly, as it has since 2013. At the participant level, self-insurance or mixed-funding flattened out in recent years, after gradually increasing through 2012. 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 2016 and continued its decline in 2017. Stop-loss coverage among mixed-funded plans remained approximately constant. 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 15.

Table 15. 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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This document is the 2020 Self-Insured Group Health Plans Report, Deliverable 3.3 pursuant to Task Order 1605DC-18-F-00396 (Self-Insured Report to Congress) of Contract DOLJ139335157.