



ADVANCED ANALYTICAL
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ANOMALIES IN FORM 5500 FILINGS: LESSONS FROM SUPPLEMENTAL DATA FOR GROUP HEALTH PLAN FUNDING

Final Report

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SUMMARY

Section 1253 of the Patient Care and Affordable Care Act of 2010 ("ACA") mandates annual reports on self-insured group health plans based on data from filings of the *Form 5500 Annual Return/Report of Employee Benefit Plan* ("Form 5500"). Although the U.S. Department of Labor ("DOL") uses the information provided on the Form 5500 to infer group health plans' funding mechanism, these filings do not always allow unambiguous funding mechanism categorization, in part because of the design of the Form 5500 and in part because of incomplete or internally inconsistent filings. Seeking clarification on such ambiguities, DOL contacted a subset of Form 5500 health plan filers. This report documents an analysis of those supplemental data and includes a comparison to original Form 5500 filings.

The supplemental data collection disproportionately targeted incomplete or internally inconsistent filings, but it also followed up on apparently anomaly-free filings. The main findings are:

- Most anomalies appear to be due to oversights or errors by the Form 5500 filer. However, relatively common explanations for observed anomalies point at potential issues with the process that captured Form 5500 filings into an electronic database.
- Plans need to attach a *Schedule A Insurance Information* ("Schedule A") with details on any insurance contract that underwrites plan benefits. A number of instances surfaced in which self-insured plans filed details of their stop-loss insurance, or their contract for services to administer medical claims, on a Schedule A for health insurance. As a result, self-insured plans may have been classified as fully insured or mixed-funded based on their Form 5500 filing.
- Plans need to attach a *Schedule H Financial Information* ("Schedule H") or *Schedule I Financial Information – Small Plan* ("Schedule I") with details on their plan's trust, if any. Many plans attached such a Schedule even though they did not operate a trust, and they left much of it blank. Because of the assumption that plans with a trust self-insure at least part of their benefit plans, some fully insured plans may have been classified as mixed-funded based on their Form 5500 filing.
- More generally, mixed-funded plans appear to be less common than as inferred from Form 5500 filings.
- Stop-loss coverage among self-insured plans is much more widespread than Form 5500 filings suggest. Indeed, stop-loss insurance need not be reported in Form 5500 filings if the plan sponsor (rather than the plan itself) is the beneficiary.

Based on these findings, this report suggests improvements to the algorithm that attempts to derive funding mechanism from Form 5500 filings. It also flags a number of areas in which filing anomalies may be reduced through validity checks in the online Form 5500 filing system or through clarification in instructions to the Form 5500.

1. INTRODUCTION

Section 1253 of the ACA mandated that the Secretary of Labor ("Secretary") use Form 5500 data to prepare aggregate annual reports with general information on self-insured group health plans. Deloitte Financial Advisory Services LLP ("Deloitte FAS"), assisted by its subcontractor Advanced Analytical Consulting Group Inc. ("AACG"), worked closely with the DOL to classify group health plans as fully insured, self-insured, or a combination ("mixed-funded") using Form 5500 data. The Secretary submitted reports to Congress in 2011 and 2012. Deloitte FAS and AACG issued reports titled *Self-Insured Health Benefit Plans* ("2011 Report") and *Self-Insured Health Benefit Plans 2012* ("2012 Report"), which were incorporated as appendices in the Secretary's reports to Congress.¹

In general, Line 9a or 9b of the main Form 5500 may be used to infer the funding status of group health plans; see Figure 1. Options 1 and 2 may indicate that the plan is fully insured, whereas options 3 and 4 suggest self-funding. If option 1 or 2 is specified, at least one Schedule A should be attached with details of the underlying insurance contract(s). Similarly, details of a trust (option 3) should appear on an attached Schedule H or Schedule I.

9a Plan funding arrangement (check all that apply)	9b Plan benefit arrangement (check all that apply)
(1) <input type="checkbox"/> Insurance	(1) <input type="checkbox"/> Insurance
(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts	(2) <input type="checkbox"/> Code section 412(e)(3) insurance contracts
(3) <input type="checkbox"/> Trust	(3) <input type="checkbox"/> Trust
(4) <input type="checkbox"/> General assets of the sponsor	(4) <input type="checkbox"/> General assets of the sponsor

Figure 1. Main Form 5500 Questions on Funding and Benefit Arrangements (2008)

The design of the Form 5500, however, may complicate a plan's funding mechanism classification. In particular, a single Form 5500 filing may provide information on multiple components of a welfare plan: health benefits, dental benefits, disability benefits, life insurance, et cetera. Lines 9a and 9b ask to "check all that apply," and it is not always possible to determine which response(s) relate to the health benefits component(s) of the welfare plan. Complications may also arise because Form 5500 filings may be incomplete or internally inconsistent. This report centers on such anomalies.

¹ See <http://www.dol.gov/ebsa/pdf/ACAResportToCongress032811.pdf> for the Secretary of Labor's 2011 Report to Congress and <http://www.dol.gov/ebsa/pdf/deloitte2011-1.pdf> for its Appendix B. See <http://www.dol.gov/ebsa/pdf/ACAResportToCongress041612.pdf> for the Secretary of Labor's 2012 Report to Congress and <http://www.dol.gov/ebsa/pdf/ACASelfFundedHealthPlansReport041612.pdf> for its Appendix B.

Determining health plan funding on the basis of an incomplete or internally inconsistent Form 5500 filing requires a stance on the relative credibility of conflicting information. For example, suppose a filing's Line 9a indicated the plan was funded through insurance, but the Form 5500 filing did not include a Schedule A attachment with insurance contract details, as is required for these types of plans. If Line 9a is given more weight, the plan may be categorized as fully insured, whereas the absence of Schedule A insurance contracts suggests the plan may be self-insured. This report attempts to provide an approach to resolve such conflicts.

To better understand the source of apparent Form 5500 filing anomalies, the DOL opted to directly ask Form 5500 filers for clarification. To that end, DOL's Office of the Chief Accountant (OCA) sent clarification request letters to a sample of 2008 Form 5500 filers with potentially important anomalies in their filings.² OCA also sent requests to filers that were not flagged for anomalies to verify the accuracy of the funding mechanisms.

The OCA letters informed Form 5500 filers of their filing's anomaly, and they asked the filer to explain or correct the issue. The OCA letters also asked directly about the funding mechanism of the health benefit component(s) of the filer's welfare plan, and whether the plan (or the plan's sponsor) had purchased stop-loss insurance. This report contains an analysis of responses to the OCA letters, and it documents the resolutions of each anomaly type. Additionally, this report examines the concordance between the funding mechanism stated in OCA letter responses and the funding mechanism that was inferred based on the original Form 5500 filing. Finally, it suggests improvements to the algorithm that attempts to derive funding mechanism from Form 5500 filings and demonstrates the improved funding mechanism concordance.

The remainder of this document is organized as follows. Section 2 contains a detailed description of the Form 5500 and how a Form 5500 filing can be used to infer the funding mechanism of a group health plan. Section 3 describes and summarizes anomalies in filings. Section 4 defines the anomalies of interest and describes the sample selection and data collection process. Section 5 tabulates resolutions of the anomalies and discusses the concordance between funding mechanisms as reported in the sample responses and funding mechanisms as inferred from the original Form 5500 filings. Section 6 suggests improvements to the algorithm that attempts to derive funding mechanism from Form 5500 filings and demonstrates the improved funding mechanism concordance. Section 7 concludes with potential revisions to the online Form 5500 filing system and Form 5500 instructions which may help reduce filing anomalies.

² Insofar feasible, letters were sent by email; see Section 4.

2. FUNDING MECHANISM AND THE FORM 5500

Prior to describing the anomalies that are the focus of this research, we first provide additional background on the Form 5500 and the algorithm used to infer the funding mechanisms of group health plans. Much of this information has already been provided in our reports noted earlier.³

Form 5500 Contents

The Form 5500 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 of 1974 (ERISA) and under the Internal Revenue Code. It consists of a main Form 5500 and a number of Schedules. The main Form 5500 collects such general information on the plan as the name of the sponsoring company, the type of benefits provided, the number of plan participants, and the funding and benefit arrangements (through external insurance, through a trust, or from general assets) of the overall welfare plan (which may cover more than just health benefits as discussed later). Some or all plan benefits may be provided through external insurance contracts. Form 5500 plan filings must include a Schedule A for each existing insurance contract's details (name of insurance company, type of benefit covered, number of people covered, expenses, etc.). If the plan operates 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.⁴

Employee benefits may include, for example, pensions, health benefits or life insurance. Benefits other than pensions are collectively referred to as welfare benefits. Separate Forms 5500 must be filed for pension benefits and for welfare benefits. The analysis in this report centers on health benefits only, and it is thus based on a subset of welfare benefit filings.

Employers often file a single, consolidated Form 5500 to report on the welfare benefits they provide to their employees. For the purpose of this report, we define a "health plan" as the health benefits component(s) of a welfare plan to which a Form 5500 filing related. This is a conceptual definition—it is not always possible to attribute responses on a Form 5500 to only the health benefits component(s) of the plan, where the filing is for a welfare benefit plan that indicated that it provided health benefits as well as other benefits.

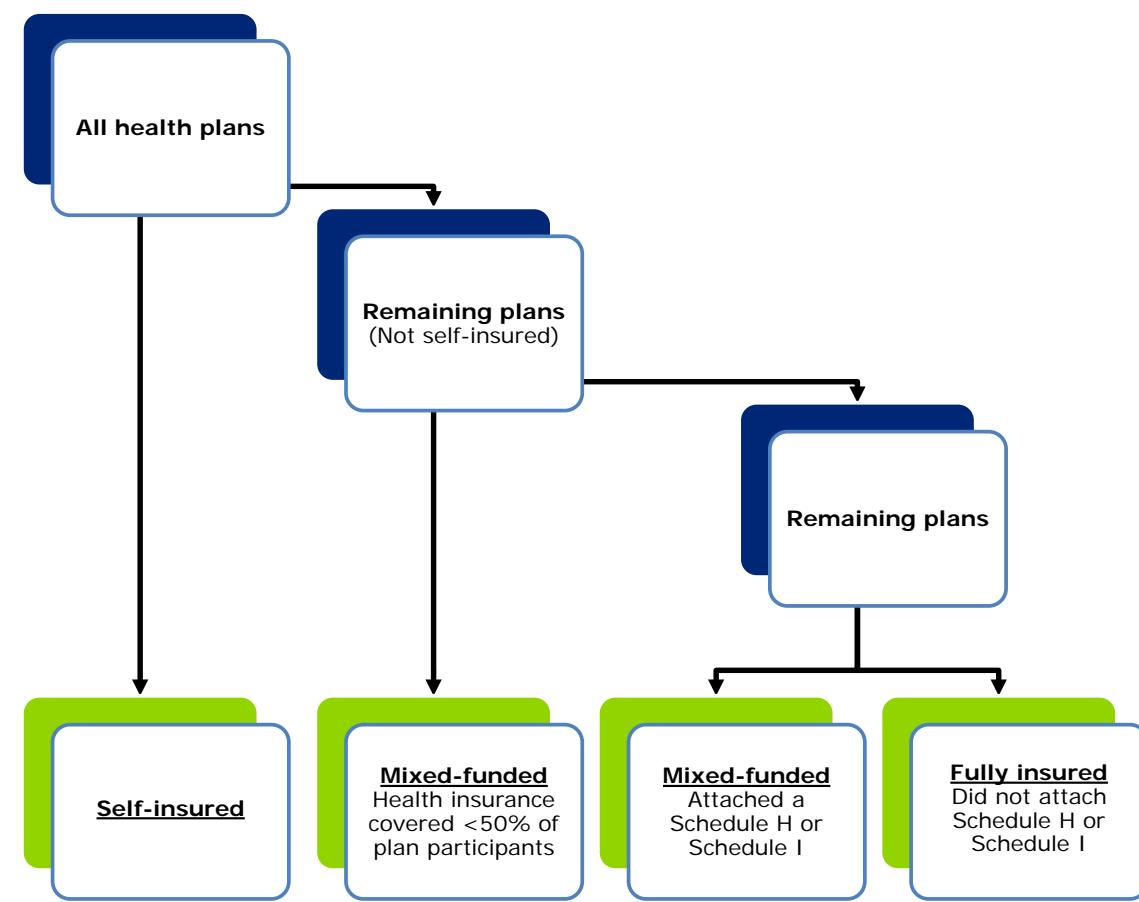
³ Also, see forthcoming report, "Strengths and Limitations of Form 5500 Filings for Determining the Funding Mechanism of Employer-Provided Group Health Plans."

⁴ Not all welfare plans must file a Form 5500. Generally, the Form 5500 is required for plans with 100 or more participants at the beginning of the reporting period and for plans of any size that operate a trust. Some plans file a Form 5500 even though they are not required to do so. Insofar the identification of filings did not overlap with identification of anomalies, this report excludes such voluntary filers from the sample universe.

Determination of Funding Mechanism

As noted earlier, our prior work used Form 5500 filings to classify employer-provided group health plan funding arrangements. Plans are self-insured under the algorithm's baseline definition if at least part of the plan is funded through a trust or from general assets, and there is no evidence of any insurance contract to underwrite health benefits. In other words, the funding or benefit arrangement is through a trust or from general assets and none of the Schedules A cover medical expenses (i.e., benefit types are neither A=health, nor J=HMO, nor K=PPO, nor L=indemnity).

Plans that are not self-insured may be fully insured or mixed-funded. Mixed-funding means that the health benefits of some plan participants were self-insured, whereas those of other plan participants were underwritten by an insurance company (fully insured). If the number of people covered by a health insurance contract was more than 50% of the number of plan participants and the plan did not operate a trust, we classified the plan as fully insured. Otherwise, we classified the plan as mixed-funded.⁵



⁵ See forthcoming report, "Strengths and Limitations of Form 5500 Filings for Determining the Funding Mechanism of Employer-Provided Group Health Plans," for a sensitivity analysis.

3. DESCRIPTION OF ANOMALIES

This section describes the filings' anomalies that were particularly obstructive in assigning a funding mechanism to group health plans from their Form 5500 filings. All tabulations are based on filings for plan year 2008, that is, filings with reporting periods that started in 2008. It is our understanding that paper filings were scanned and converted into an electronic database using optical character recognition. Some anomalies may have been caused by scanning errors.

Incomplete Information about Health Insurance Contracts

As shown earlier, Figure 1 reproduces the main Form 5500's Lines 9a and 9b on funding and benefit arrangements. If a plan checked options 1 (Insurance) or 2 (Code section 412(e)(3) insurance contracts), details of such insurance contracts should appear in one or more attached Schedules A. Schedule A asks for the type of benefits provided by the insurance contract (health, dental, life, etc.). At issue are filings that are missing Schedules A and filings that have Schedules A with missing (blank) benefit types.

Table 1 tabulates whether plan filings attached any Schedule A, by funding and benefit arrangements (Lines 9a and 9b). Out of 16,023 plans that specified funding and benefit arrangements involving only insurance contracts, 262 did not attach any Schedule A. Of 19,391 plans that specified both insurance-based arrangements and arrangements through a trust and/or from general assets, 284 did not attach any Schedule A. Finally, 511 filings attached one or more Schedules A even though they did not specify insurance-based funding or benefit arrangements.

Table 1. Presence of Any Schedule A by Plan Funding and Benefit Arrangements (2008)

	Attached Schedule A?		
	No	Yes	Total
Only specified insurance	262	15,761	16,023
Specified insurance and trust/general assets	284	19,107	19,391
Did not specify insurance	6,243	511	6,754
Total	6,789	35,379	42,168

Source: 2008 Form 5500 filings.

Table 2 and Table 3 relate only to plans that attached a Schedule A. Table 2 tabulates the benefit types of Schedules A (health, missing, other) for plans that did and plans that did not attach any health-insurance Schedules A. The unit of observation is a Schedule A. Potential anomalies arise from Schedule A benefit types that are missing (blank). There were 2,550 Schedules A with missing benefit type, of which 1,048 were attached to plan filings that had also attached one or more Schedules A with details of a health insurance contract, and 1,502 were attached to plan filings without evidence of health insurance.

Table 2. Schedule A Benefit Type by Whether the Plan Attached a Health-insurance Schedule A (2008)

	Schedule A benefit type			Total
	Health	Missing	Other	
Plan attached a health insurance Schedule A	56,669	1,048	67,740	125,457
Plan did not attach a health insurance Schedule A	0	1,502	18,560	20,062
Total	56,669	2,550	86,300	145,519

Source: 2008 Form 5500 filings.

Plans that attached health insurance details may be classified as fully insured or mixed-funded, depending on the number of persons covered by the health insurance contract(s) relative to the number of plan participants. If a missing benefit type is in fact health, a plan may shift from a mixed-funded to a fully insured classification. Plans without evidence of health insurance but one or more Schedules A with missing benefit type may be classified as fully insured, mixed-funded, or self-insured, depending on the assumptions made regarding the missing benefit types.

Table 3 takes a plan-level perspective. It tabulates combinations of Schedule A benefit types by whether the plan attached any health-insurance Schedule A. The universe consists of plans that attached at least one Schedule A. There were 740 plans which did not attach a health-insurance Schedule A, but at least one of their Schedules A had a missing benefit type—the funding classification of these plans depends directly on the assumptions made about the missing benefit type.

Table 3. Schedule A Combinations by Whether the Plan Attached a Health-insurance Schedule A (2008)

	1+ Health, 1+ Health, No health, No health, no missing 1+ missing 1+ missing no missing				Total
	1+ Health	1+ Health	No health	No health	
Plan attached a health insurance Schedule A	27,224	662	0	0	27,886
Plan did not attach a health insurance Schedule A	0	0	740	6,753	7,493
Total	27,224	662	740	6,753	35,379

Source: 2008 Form 5500 filings.

Incomplete Information About Trusts

If the main Form 5500's funding or benefit arrangement is option 3 (trust), possibly along with other arrangements, financial details of that trust should appear in an attached Schedule H or I. Not all plans with funding through a trust appeared to have provided this information.

Table 4 tabulates whether plan filings included a Schedule H or I by whether their funding or benefit arrangements specified a trust. Out of 5,831 plans that indicated a funding or benefit arrangement through a trust, 62 did not attach a Schedule H or I with details on that trust. Conversely, 1,743 plan filings attached a Schedule H or I even though neither their plan funding nor their plan benefit arrangement mentioned a trust.

Table 4. Presence of a Schedule H or I by Whether the Plan Funding or Benefit Arrangement Included a Trust

	Attached Schedule H or I		Total
	No	Yes	
Specified trust	62	5,769	5,831
Did not specify trust	34,594	1,743	36,337
Total	34,656	7,512	42,168

Source: 2008 Form 5500 filings.

Zero or Missing Number of Participants

Line 6 on the main Form 5500 asks for the total number of participants at the beginning of the plan year. Excluding direct filing entities and terminated plans, this number is zero for 505 existing plans and 359 new plans; see Table 5.⁶

Table 5. Number of Plan Participants at the Beginning of the Plan Year (2008)

	Freq.	Percent
Non-zero participants	41,304	98.0%
Zero participants (existing plan)	505	1.2%
Zero participants (new plan)	359	0.9%
Total	42,168	100.0%

Source: 2008 Form 5500 filings.

Note: Excludes direct filing entities and terminated plans.

Of the 505 existing plans with reportedly zero participants at the beginning of plan year 2008, 465 could be matched to their 2007 filing; 347 of those reported non-zero participants at the end of plan year 2007.

The electronic database with plan filings does not contain any missing values for number of participants. If the hardcopy filing did not contain a value, the field may have been zero-filled. In other words, it may be the case that zero participants reflects a blank entry on the Form, rather than a true zero.

The issue of zero participants may have implications for the universe of filings that are analyzed per §1253 of the ACA. The filings analyzed in our 2011 Report and 2012 Report related to that mandate excluded plans that were not required to file, i.e., plans without a trust and with fewer than 100 participants. Including new and existing plans, 864 plans reportedly had zero participants. Of those, 346 filed a Schedule H or I with details of their trust. Those 346 plans were included in the analysis; the others were excluded because the number of participants was

⁶ We identify new plans as plans that did not file a Form 5500 from 2000 to 2007. The forthcoming report "Self-Insured Health Benefit Plans Supplemental Report 2012," discusses an alternative definition of a "new" plan using Form 5500 filings that checked the "first return/report filed for the plan" option on Part I.B.

reportedly under 100. However, if their number of participants was in fact greater than 100, they can be included in the analysis.

Implausible Number of Participants

The number of participants reported on the main Form 5500 is not always plausible. For example, 16 health plans reported more than 400,000 participants even though their sponsors had far fewer than 400,000 employees.⁷ One plan reported 11,111,111 and another 55,555,555 participants; a few others reported more than 80 million participants each. Similar issues may exist with plans that report fewer than 400,000 participants, but those are more difficult to identify. These large variances may result from data capture errors.

Plans that offer health benefits through external insurance should attach a Schedule A which, among other questions, asks for the “Approximate number of persons covered at end of policy or contract year” (Line 1e). This allows a comparison with the number of plan participants on the main Form 5500 at the end of the plan year (Line 7f). Table 6 shows a comparison of the total number of people covered on any health insurance contract (from Schedules A) to the number of plan participants (from the main Form 5500), excluding responses with zero or missing values in either field.

Table 6. Distribution of the Ratio of Number of People Covered by Health Insurance Contracts to Number of Plan Participants (2008)

	Freq.	Percent
Less than or equal to 0.1	1,084	3.9%
Between 0.1 and 10	26,246	95.4%
Greater than or equal to 10	178	0.6%
Total	27,508	100.0%

Source: 2008 Form 5500 filings.

On 1,084 filings, the number of people covered by health insurance contracts was less than one-tenth of the number of plan participants. (These filings are not necessarily erroneous, such as when a plan fully insures the benefits of less than 10% of its participants and self-insures the rest.) Also, on 178 filings, the number of people covered by health insurance contracts was more than 10 times as high as the number of plan participants.

The above comparison applies to plans with one or more external health insurance contracts only. Form 5500 does not ask about the number of people covered by self-insured health benefits.

⁷ The number of employees was estimated by a manual search of the individual company websites.

4. DATA COLLECTION

Based on the prevalence of anomalies documented in the previous section, we identified seven anomaly types that were particularly obstructive to the inference of group health plan funding mechanisms from Form 5500 filings or of the appropriate analysis universe for the Secretary's annual report to Congress pursuant to the ACA:

1. Line 9a or Line 9b indicated that plan funding was, at least in part, through insurance, but no Schedule A was attached with insurance contract details.
2. One or more Schedules A with details on insurance contracts were attached, even though neither Line 9a nor Line 9b indicated that funding was through insurance.
3. One or more Schedules A did not specify the type of benefit provided by the insurance contract.
4. Line 9a or Line 9b indicated that plan funding was, at least in part, through a trust, but no Schedule H or I with financial information on the trust was attached.
5. A Schedule H or I with financial information on a trust was attached, even though neither Line 9a nor Line 9b indicated that funding was through a trust.
6. The number of plan participants at the beginning of the plan year, as reported on the main Form 5500, was zero or missing.
7. The number of plan participants was implausible.

OCA sent letters with requests for clarification to a sample of 2008 Form 5500 filers with any of the seven above-listed types of anomalies in their filings. The letters also asked directly about the funding mechanism of the health benefit component(s) of their welfare plan and whether the plan (or the plan's sponsor) had purchased stop-loss insurance.⁸ OCA also sent requests to filers of what appeared to be anomaly-free reports. The total number of filing categories to which OCA sent letters was thus ten:

8. Anomaly-free filing; Form 5500 information suggested it was self-insured.
9. Anomaly-free filing; Form 5500 information suggested it was mixed-funded.
10. Anomaly-free filing; Form 5500 information suggested it was fully insured.

OCA sent letters to only a subset of 2008 Form 5500 filings. In order to select plans to contact, DOL provided us with all 2008 Form 5500 filings of plans that provided health benefits. Excluding filings of terminated plans, filings by Direct Filing Entities, and voluntary filings, we assigned all remaining filings into one of ten categories: seven anomaly categories and three seemingly anomaly-free categories for plans that, based on their Form 5500 filing, were inferred to be self-insured, mixed-

⁸ Plans that indicated being fully insured were also asked whether one or more insurance carriers were "captive carriers," that is, controlled by or otherwise financially related to the plan sponsor. None of the respondents indicated being insured through a captive carrier.

funded, or fully insured.⁹ If a filing contained multiple anomalies, it was allocated hierarchically in the order as listed above. For example, if a plan contained both anomaly types 2 and 7, it was assigned to type 2.¹⁰ DOL contracted with a third party to draw a stratified random sample with strata corresponding to the ten categories defined above. Finally, DOL excluded from the sample plans which had not filed a Form 5500 after 2008.

Beginning in January 2012, OCA contacted the sample by email, if an email address was available, or with a hardcopy letter, if no email was available. Plans that failed to respond, or submitted incomplete or ambiguous responses, were contacted by DOL. It is our understanding that a small number of plans (29 out of 650 plans, or 4.5%) did not respond even after repeated attempts to contact them; in their place, replacement plans were randomly drawn.¹¹

For each of the ten strata, Table 7 shows the number of filings and the participant-weighted prevalence of those filings in plan year 2008. In all, there were 42,168 filings of which 36,499 filings (86.6%) appeared anomaly-free. However, when weighted by the number of plan participants, apparently anomaly-free filings represent only 78.3% of health plan participants suggesting a higher prevalence of anomalies among larger plans. In particular, the participant-weighted fraction in Table 7 shows that large plans appeared to disproportionately report implausible numbers of participants (Type 7). As documented in the next section, reported numbers by plans with this anomaly type were in fact often correct.

⁹ For the purpose of this document, a voluntary filing is a report on a welfare plan with 1-99 participants at the beginning of the reporting period and without details of a trust. Plans that reported having zero participants were included in the analysis, because that figure may have been anomalous.

¹⁰ As a result, some frequency counts in Table 7 are lower than those indicating anomalies in Table 1 through Table 6.

¹¹ The Office of Management and Budget suggests that a nonresponse bias analysis may be needed if the response rate is below 80 percent. Since the initial response rate of the supplemental data collection was 95.5%, we did not attempt to analyze potential nonresponse bias. See Guideline 1.3.4 in *Standards and Guidelines for Statistical Surveys*, Office of Management and Budget, September 2006. Accessed in November 2012 at http://www.whitehouse.gov/sites/default/files/omb/inforeg/statpolicy/standards_stat_surveys.pdf.

Table 7. Number of 2008 Filings, by Anomaly Type

Type	Description of anomaly	Freq.	Percent	Participant-Weighted Percent
1	Missing Schedule A	546	1.3%	0.9%
2	Schedule A was attached despite funding without insurance	511	1.2%	1.1%
3	Missing benefit type on Schedule A	1,280	3.0%	6.8%
4	Missing Schedule H or I	48	0.1%	0.4%
5	Schedule H or I was attached despite funding without a trust	1,484	3.5%	1.5%
6	Number of participants was zero/missing	653	1.5%	0.4%
7	Number of participants was implausible	1,147	2.7%	10.5%
8	No anomaly (self-insured)	11,546	27.4%	34.4%
9	No anomaly (mixed-funded)	3,298	7.8%	19.7%
10	No anomaly (fully insured)	21,655	51.4%	24.2%
	Total	42,168	100.0%	100.0%

Source: 2008 Form 5500 filings.

Table 9 shows the number of OCA letter responses analyzed in this document. The analysis covers roughly 10% of anomalous filings, except for a greater fraction of filings with a missing Schedule H or I. Filings that appeared to be anomaly-free were sampled at a much lower rate. In total, the analysis includes 650 plans.

Table 8. Number of 2008 Filings and Sampled Respondents, by Anomaly Type

Type	Description of anomaly	Universe	Analysis Sample
1	Missing Schedule A	546	50
2	Schedule A was attached despite funding without insurance	511	49
3	Missing benefit type on Schedule A	1,280	120
4	Missing Schedule H or I	48	34
5	Schedule H or I was attached despite funding without a trust	1,484	132
6	Number of participants was zero/missing	653	55
7	Number of participants was implausible	1,147	111
8	No anomaly (self-insured)	11,546	33
9	No anomaly (mixed-funded)	3,298	33
10	No anomaly (fully insured)	21,655	33
	Total	42,168	650

Source: 2008 Form 5500 filings and OCA supplemental data.

5. ANALYSIS OF SUPPLEMENTAL DATA

This section presents the results of an analysis of supplemental data from responses to OCA letters. For each of the seven anomaly types, we discuss the explanations that Form 5500 filers provided. For both anomalous and apparently anomaly-free filings, we further tabulate the concordance of funding mechanism as reported in the supplemental data and as inferred from the original Form 5500 filings. Some plans reported that they provided flexible spending, other non-health benefits, or, in a few cases, the actual funding mechanism could not be determined from their response;¹² we did not include their response in the funding mechanism concordance analysis.¹² Finally, we compare the prevalence of stop-loss insurance in supplemental data and in original Form 5500 filings.

Anomaly Type 1: Missing Schedule A

Table 9 tabulates the resolution of filings that indicated plan or benefit funding through insurance but that did not attach a Schedule A. Twenty-five filers (50%) acknowledged that they had failed to attach a Schedule A, 12 (24%) stated that the plan or benefit funding arrangement had erroneously indicated insurance, 5 (10%) stated that their original Form 5500 filing had in fact attached one or more Schedules A, and 8 provided another explanation.

Table 9. Resolution of Missing Schedules A

	Freq.	Percent
Failed to attach a Schedule A	25	50.0%
Insurance box was erroneously checked	12	24.0%
Schedule A was in fact attached	5	10.0%
Other	8	16.0%
Total	50	100.0%

Source: OCA supplemental data.

The electronic database of 2008 Form 5500 filings does not contain information from Schedules A of the five plans that indicated that they had attached one or more Schedules A. The ones that were attached but not in our database may be due to data capture error. The eight plans with “other” explanations included a flexible spending plan that had erroneously stated providing health benefits, several self-insured plans with stop-loss insurance that was purchased by the sponsor (rather than the plan), and a plan with a life insurance policy for which the coverage end date fell after the end of the plan reporting period and which was reported on that plan’s 2009 Form 5500 filing.

Table 10 shows the concordance of funding mechanism of the anomaly Type 1 sample as reported on the OCA supplemental data and as inferred from the original Form 5500 filings. Three plans indicated that they did not provide health benefits

¹² In subsequent concordance tables, we label these as “Non-health plans.”

(one provided vision coverage only and the other two maintained employee flexible spending accounts); 22 out of 30 plans that indicated that they were fully insured had been correctly classified based on their original Form 5500 filing; the other 8 had been classified as mixed-funded. Based on Form 5500 filings, 14 plans were classified as mixed-funded, whereas the OCA supplemental data indicated that no plan was mixed-funded. Further, none of the 17 plans that indicated being self-insured were classified as such based on their Form 5500 filing. The reason for this poor concordance lies in an assumption that plans carry health insurance if they indicated being funded through insurance, even if they failed to attach details of such insurance. The supplemental data show that the funding did not always operate through insurance, or that the missing Schedule A was for an insurance contract that provided a non-health benefit.

Table 10. Anomaly Type 1: Concordance of Funding From Supplemental Data and Form 5500

Supplemental data	Form 5500			Total
	Fully insured	Mixed	Self-insured	
Fully insured	22	8	0	30
Mixed	0	0	0	0
Self-insured	11	6	0	17
Non-health plan	3	0	0	3
Total	36	14	0	50

Source: 2008 Form 5500 filings and OCA supplemental data.

Anomaly Type 2: Schedule A Was Attached Despite Funding Without Insurance

Table 11 tabulates the explanations for filings with a Schedule A attached even though their reported funding arrangement did not involve insurance. Twenty-nine filers (59%) acknowledged that their plan or benefit funding did in fact involve insurance, 9 (18%) acknowledged that no Schedule A should have been attached, and 11 (22%) stated that their original Form 5500 filing did in fact report funding through insurance. The last explanation suggests a potential data entry issue.

Table 11. Resolution of an Attached Schedule A Despite Funding Without Insurance

	Freq.	Percent
Funding in fact involved insurance	29	59.2%
Schedule A was incorrectly attached	9	18.4%
Line 9a/9b indicated insurance	11	22.4%
Total	49	100.0%

Source: OCA supplemental data.

Table 12 shows the concordance of funding mechanism as reported on the OCA supplemental data and as inferred from the original Form 5500 filings. One plan indicated that it did not provide health benefits (dental coverage only). Twelve out of 19 plans that indicated being fully insured were correctly identified as such based on their original Form 5500 filing. Based on Form 5500 filings, 13 plans were classified

as mixed-funded, whereas the supplemental data indicated that only 3 plans were mixed-funded. A total of 18 out of 26 plans that indicated being self-insured were classified as being mixed-funded or fully insured based on their Form 5500 filing. All but 1 of those 18 had attached a Schedule A with a health benefit code, sometimes in combination with a stop-loss coverage code. These plans may have erroneously filed a Schedule A for a contract to provide services related to self-insured health benefits.

Table 12. Anomaly Type 2: Concordance of Funding From Supplemental Data and Form 5500

Supplemental data	Form 5500			Total
	Fully insured	Mixed	Self-insured	
Fully insured	12	4	3	19
Mixed	1	1	1	3
Self-insured	10	8	8	26
Non-health plan	0	0	1	1
Total	23	13	13	49

Source: 2008 Form 5500 filings and OCA supplemental data.

Anomaly Type 3: Missing Benefit Type on Schedule A

Table 13 tabulates the explanations of missing benefit types on Schedules A. In about one-half of the cases (49%), the benefit type should have been marked as health benefits, and in 33% the benefit type was something other than health. Sixteen out of 120 (13%) plans indicated that their Schedule A had in fact marked a benefit type, and 4 plans suggested that the Schedule A at issue should not have been attached. One plan indicated that it had erroneously duplicated the first two pages of its 2008 Schedule A when filing their Form 5500.

Table 13. Resolution of Missing Benefit Type on Schedules A

	Freq.	Percent
Health	59	49.2%
Not health	40	33.3%
Benefit type was in fact indicated	16	13.3%
Schedule A was erroneously attached	4	3.3%
Other	1	0.8%
Total	120	100.0%

Source: OCA supplemental data.

Table 14 shows the concordance of funding mechanism as reported on the OCA supplemental data and as inferred from the original Form 5500 filings. Most plans that indicated being fully insured (54 out of 63) were correctly identified as such based on their original Form 5500 filing. As was also the case with the first two anomaly types, too many plans were identified as mixed-funded based on their original Form 5500 filing: 39 compared with 14 according to the supplemental data. A major discordance exists in 38 plans that indicated being self-insured. None of them were identified as such based on Form 5500 information. This discordance occurs because the algorithm that identified funding mechanism in the 2011 Report

assumes that Schedules A with missing benefit types are for health insurance contracts unless the filing includes an additional health insurance Schedule A.

Table 14. Anomaly Type 3: Concordance of Funding From Supplemental Data and Form 5500

Supplemental data	Form 5500			Total
	Fully insured	Mixed	Self-insured	
Fully insured	54	9	0	63
Mixed	3	11	0	14
Self-insured	23	15	0	38
Non-health plan	1	4	0	5
Total	81	39	0	120

Source: 2008 Form 5500 filings and OCA supplemental data.

Anomaly Type 4: Missing Schedule H or I

Table 15 tabulates the explanations that were provided for filings that indicated funding through a trust but that did not attach financial details of that trust on a Schedule H or I. The large majority (74%) acknowledged that they had misstated the funding of the plan and that there was in fact no trust. Four plans (12%) responded that they had erroneously omitted a Schedule H or I; two of those were large plans with 100 or more participants. Three out of 34 plans (9%) indicated that their Form 5500 filing had in fact attached a Schedule H or I, suggesting a data entry issue. One plan indicated that the “Plan is funded through contributions from plan participants.”

Table 15. Resolution of Missing Schedule H or I

	Freq.	Percent
There was no trust	25	73.5%
Schedule H/I should have been attached	4	11.8%
Form correctly filed	3	8.8%
Other	2	5.9%
Total	34	100.0%

Source: OCA supplemental data.

Table 16 shows the concordance of funding mechanism as reported on the OCA supplemental data and as inferred from the original Form 5500 filings. One plan indicated that it did not provide health benefits. Eleven out of 17 plans that indicated being fully insured were correctly identified as such based on their original Form 5500 filing, and 8 out of 12 self-insured plans had been identified as such based on Form 5500 information. Four plans responded being mixed-funded, compared with only two that had been identified as such based on Form 5500 information.

Table 16. Anomaly Type 4: Concordance of Funding From Supplemental Data and Form 5500

Supplemental data	Form 5500			
	Fully insured	Mixed	Self-insured	Total
Fully insured	11	0	6	17
Mixed	2	1	1	4
Self-insured	3	1	8	12
Non-health plan	1	0	0	1
Total	17	2	15	34

Source: 2008 Form 5500 filings and OCA supplemental data.

Anomaly Type 5: Schedule H or I Was Attached Despite Funding Without a Trust

Table 17 tabulates the explanation of plans that attached a Schedule H or I even though they did not indicate that their funding involved a trust. The majority (86%) of responses indicated that their plan did not operate a trust and that Schedule H or I was filed erroneously. Some respondents volunteered that their service provider had automatically generated a blank Schedule H or I; indeed, many erroneously attached Schedules H or I contained mostly blank entries. Eighteen out of 132 plans (14%) acknowledged that their plan or benefit funding in fact did involve a trust and that they should have checked the “trust” box on Line 9a or Line 9b. One plan responded that the original Form 5500 filing had in fact checked the “trust” box on Line 9a or Line 9b, suggesting a potential data capture issue.

Table 17. Resolution of Attached Schedule H or I Despite Funding Without a Trust

	Freq.	Percent
Line 9a/9b trust box should have been checked	18	13.6%
There was no trust	113	85.6%
Line 9a/b trust box was checked	1	0.8%
Total	132	100.0%

Source: OCA supplemental data.

Table 18 shows the concordance of funding mechanism as reported on the OCA supplemental data and as inferred from the original Form 5500 filings. Four plans indicated that they did not provide health benefits (all four were flexible spending accounts). Most plans that indicated being fully insured or self-insured in their response to the OCA letter had been correctly identified as such based on Form 5500 data. However, 34 plans were classified as mixed-funded based on Form 5500 filings, whereas only 6 plans identified themselves as mixed-funded in their OCA responses.

Table 18. Anomaly Type 5: Concordance of Funding From Supplemental Data and Form 5500

Supplemental data	Form 5500			Total
	Fully insured	Mixed	Self-insured	
Fully insured	44	25	6	75
Mixed	2	4	0	6
Self-insured	14	5	28	47
Non-health plan	1	0	3	4
Total	61	34	37	132

Source: 2008 Form 5500 filings and OCA supplemental data.

Anomaly Type 6: Number of Participants Was Zero or Missing

Table 19 tabulates the explanation of plans whose number of participants on their original Form 5500 filing was zero or missing according to the electronic database with Form 5500 filings. Most (82%) provided a corrected, non-zero number of participants. Nine plans (16%) stated that the number of participants was indeed zero, mostly with an explanation that the plan had just started up. One plan responded that they were not required to file a Form 5500 because they belong to a multiemployer plan that files on their behalf.

Table 19. Resolution of Zero or Missing Number of Participants

	Freq.	Percent
Zero participants	9	16.4%
Not zero participants	45	81.8%
Other	1	1.8%
Total	55	100.0%

Source: OCA supplemental data.

The 45 plans that provided a corrected, non-zero number of participants reported 488 participants on average. The median was 170 participants. Twelve out of 45 (27%) reported covering fewer than 100 participants.

Plans with reportedly zero participants were considered voluntary filers and were therefore not analyzed in our 2011 and 2012 Reports. Table 20 shows the concordance of funding mechanism as reported on the OCA supplemental data and as inferred from the original Form 5500 filings. One plan did not provide a funding mechanism response and four plans indicated that they did not provide health benefits or were not required to file a Form 5500 (two plans maintained a flexible spending account, one belonged to a multiemployer plan as discussed above, and one said no benefits were provided during the plan year). The main finding is that most plans with reportedly zero participants did in fact have participants and could be included in an analysis of self-insured health plans. Most plans that indicated being fully insured or self-insured in their response to the OCA letter had been correctly identified as such based on Form 5500 data. While only two of the plans indicated being mixed-funded in their OCA responses, five plans had been identified as such based on their original Form 5500 filing.

Table 20. Anomaly Type 6: Concordance of Funding From Supplemental Data and Form 5500

Supplemental data	Form 5500			
	Fully insured	Mixed	Self-insured	Total
Fully insured	21	3	3	27
Mixed	1	1	0	2
Self-insured	4	1	16	21
Non-health plan	0	0	5	5
Total	26	5	24	55

Source: 2008 Form 5500 filings and OCA supplemental data.

Anomaly Type 7: The Number of Participants Was Implausible

Table 21 tabulates the explanations for implausible numbers of participants. Most responses (65%) indicated that the number of participants on their original Form 5500 filing and the number of people covered on the attached Schedule A were in fact correct. Twelve plans (11%) stated that the Form 5500 figure was incorrect; 9 plans (8%) responded that the Schedule A figure was incorrect, and 4 plans (4%) acknowledged that both numbers were incorrect. Twelve plans (11%) suggested that their original Form 5500 filing had been transcribed incorrectly. One plan provided updated participant counts without explaining the plan's anomaly, and another said that they considered someone a participant only if they filed a claim during the year.

Table 21. Resolution of Implausible Numbers of Participants

	Freq.	Percent
Form 5500 number was incorrect	12	10.8%
Schedule A number was incorrect	9	8.1%
Both numbers were incorrect	4	3.6%
Both numbers were correct	72	64.9%
Data capture issue	12	10.8%
Other	2	1.8%
Total	111	100.0%

Source: OCA supplemental data.

Table 22 shows the concordance of funding mechanism as reported on the OCA supplemental data and as inferred from the original Form 5500 filings. One plan indicated that it did not provide health benefits. Plans that in their response to an OCA letter indicated being fully insured or mixed-funded were generally correctly identified as such based on their original Form 5500 filing. However, none of the 16 plans that indicated being self-insured were classified as such based on Form 5500 information. Recall that the number of participants had been flagged as implausible because of a large discrepancy between the number of welfare plan participants on the main Form 5500 and the number of people covered by a health insurance contract on a Schedule A. All such plans had attached a health insurance contract and were therefore classified as mixed-funded or fully insured. However, as encountered with other anomalies above, some self-insured plans may have erroneously attached a Schedule A with details of a contract that related exclusively

to the administration of their self-insured plan, such as an “Administrative Services Only” or ASO contract.

Table 22. Anomaly Type 7: Concordance of Funding From Supplemental Data and Form 5500

Supplemental data	Form 5500			Total
	Fully insured	Mixed	Self-insured	
Fully insured	16	6	0	22
Mixed	1	70	0	71
Self-insured	6	10	0	16
Non-health plan	0	2	0	2
Total	23	88	0	111

Source: 2008 Form 5500 filings and OCA supplemental data.

Anomaly-Free Filings

Table 23 shows the concordance of funding mechanism as reported on the OCA supplemental data and as inferred from the original Form 5500 filings. Four plans indicated that they did not provide health benefits (two plans indicated maintaining employee flexible spending accounts, one plan indicated accidental death and dismemberment coverage limited to aviation accidents, and one respondent provided information for a plan other than the one requested). The funding mechanism of most plans was consistent in the two sources. However, according to OCA responses, only 7 out of 95 health plans (this excludes the 4 non-health plans) were mixed-funded, whereas the algorithm that inferred funding mechanism from Form 5500 filings identified 31 of these plans as mixed-funded.

Table 23. Anomaly-Free Filings: Concordance of Funding From Supplemental Data and Form 5500

Supplemental data	Form 5500			Total
	Fully insured	Mixed	Self-insured	
Fully insured	26	11	3	40
Mixed	2	5	0	7
Self-insured	5	15	28	48
Non-health plan	0	2	2	4
Total	33	33	33	99

Source: 2008 Form 5500 filings and OCA supplemental data.

The Prevalence of Stop-Loss Insurance

The OCA letters directly asked plans that indicated self-insurance or mixed-funding about stop-loss coverage. Table 24 shows the prevalence of stop-loss coverage in the OCA supplemental data. The table pools all OCA responses across the ten sample strata. Among the 332 plans that indicated self-insuring the health benefits of some or all participants, 249 reported purchasing stop-loss coverage. Weighted by plan weights (the inverse of the sampling probability of each stratum), this translates into

stop-loss prevalence among plans of 82%. Weighted by plan and participant weights, 55% of participants in a self-insured or mixed-funded plan were in a plan with stop-loss coverage, suggesting that large plans are less likely to purchase stop-loss coverage than small plans.^{13,14}

Table 24. Prevalence of Stop-Loss Coverage Among Self-Insured or Mixed-Funded Plans in the OCA Supplemental Data

Stop-loss coverage	Frequency	Sample-weighted percentage	
		Plans	Participants
No	83	17.6%	45.4%
Yes	249	82.4%	54.6%
Total	332	100.0%	100.0%

Source: 2008 Form 5500 filings and OCA supplemental data.

According to the 2011 Report, stop-loss coverage was reported on 2008 Form 5500 filings by 24% of self-insured and 28% of mixed-funded plans, covering 12-13% of participants. As noted in that report, the Form 5500 filings may not reveal the full extent of stop-loss coverage:¹⁵

If stop-loss insurance identifies the health plan as the beneficiary or it is purchased with plan assets, it needs to be reported on a Schedule A. However, if the employer has purchased the stop-loss insurance with itself as the beneficiary (as opposed to the plan), it need not be reported on the Form 5500. The figures in Schedule A may thus underestimate the prevalence of stop-loss insurance.

In contrast, the OCA letters asked about stop-loss coverage for the plan or the employer: "Has the Plan or its sponsor purchased insurance against very high medical claims (sometimes known as stop-loss or catastrophic loss insurance)?" Indeed, OCA responses suggest that the overall prevalence in plan year 2008 was much higher than the figure reported in Form 5500 filings for plan coverage. The estimated stop-loss coverage rate of 55% among participants in plan year 2008 is closer to (but still lower than) the figures reported by the 2011 Employer Health Benefits survey of the Kaiser Family Foundation and Health Research and Educational Trust ("KFF/HRET Survey").¹⁶ The KFF/HRET Survey concluded that 72% of workers

¹³ Plan weights are equal to the ratio of plans of a particular type in the universe and plans of that type in the analysis sample (see Table 8). Participant-weighted percentages are based on relative participant counts of a particular type in the sample and in the universe. For anomaly types 6 and 7 (zero or implausible participant counts), respondent-provided corrected counts were used. Note that the weights are largest for anomaly-free self-insured plans (Type 8) or fully insured plans (Type 10), and weighted analyses are therefore dominated by the plans that were sampled from those groups.

¹⁴ The plan-weighted margin of error was 10%, i.e., the 95% confidence interval ranged from 72% to 93%. Weighted by plans and participants, the margin of error was 21%, i.e., the 95% confidence interval ranged from 25% to 66%.

¹⁵ 2011 Report, p. 25.

¹⁶ See <http://ehbs.kff.org/>.

in self-insured plans at firms with 3-199 workers were in plans that had purchased stop-loss coverage. The same survey found that the proportion decreased to 57% of workers at large firms (200+ workers).

Table 25 shows the concordance of stop-loss coverage as reported in OCA supplemental data and in Form 5500 filings. The two sources were consistent for all but two plans that reported no stop-loss coverage in OCA responses. However, as many as 151 out of 249 plans that, in their OCA responses, indicated having stop-loss coverage had not reported such insurance in their Form 5500 filings. Indeed, if their coverage was purchased by the plan sponsor, rather than the plan itself, it was not required to be reported on the Form 5500.

Table 25. Concordance of Stop-Loss Coverage as Reported in Supplemental Data and in Form 5500 Filings

Stop-loss coverage	Form 5500		
	No	Yes	Total
No	81	2	83
Yes	151	98	249
Total	232	100	332

Source: 2008 Form 5500 filings and OCA supplemental data.

Table 26 shows the prevalence of stop-loss coverage by plan size. Plans with fewer than 1,000 participants appear more likely to purchase stop-loss coverage as plan size increases, while plans with more than 1,000 participants appear less likely to purchase stop-loss coverage as plan size increases. 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. Market realities may be part of the explanation: insurance companies may not offer stop-loss insurance to small employers, or only at very high rates. Stop-loss coverage is lowest among very large plans with 5,000 or more participants, presumably because they are better able to shoulder financial risks than smaller plans.

Table 26. Prevalence of Stop-Loss Coverage Among Self-Insured or Mixed-Funded Plans, by Plan Size

Plan size	Number of plans	Plans with stop-loss coverage	Un-weighted percent	Plan-weighted percent
0	8	4	50.0%	50.3%
1-99	32	17	53.1%	81.2%
100-199	41	37	90.2%	83.4%
200-499	77	68	88.3%	89.7%
500-999	54	48	88.9%	95.4%
1,000-1,999	40	33	82.5%	77.9%
2,000-4,999	35	24	68.6%	53.7%
5,000+	45	18	40.0%	41.9%
All	332	249	75.0%	82.4%

Source: 2008 Form 5500 filings and OCA supplemental data.

Overall Funding Mechanism

Table 27 summarizes the distribution of funding mechanism as reported in the supplemental data. It is based on all 625 supplemental data responses which related to health plans and for which funding mechanism could be ascertained. Weighted by plan weights (the inverse of the sampling probability of each stratum), 53%, 7% and 40% of plans reported being fully insured, mixed-funded or self-insured, respectively. As indicated by the 95% confidence intervals in the table, the margin of error was 8 percentage points for the fraction of plans that reported being fully insured, 4 percentage points for the fraction mixed-funded, and 7 percentage points for the fraction self-insured. Weighted by plan and participant weights, the fraction of participants in fully insured plans was 24% (+/- 10 percentage points), in mixed-funded plans 28% (+/- 14 percentage points), and in self-insured plans 48% (+/- 16 percentage points).

Table 27. Distribution of Funding Mechanism as Reported in Supplemental Data

	Plan-weighted			Participant-weighted		
	Percent	95% Confidence interval		Percent	95% Confidence interval	
Fully insured	53.2%	45.1%	61.3%	23.9%	13.8%	34.0%
Mixed	6.9%	2.4%	11.4%	28.4%	14.0%	42.7%
Self-insured	40.0%	32.7%	47.2%	47.7%	32.2%	63.3%
Total	100.0%			100.0%		

Source: Supplemental data.

Table 28 shows the overall concordance of funding mechanism as reported in OCA supplemental data and as inferred from the original Form 5500 filings. This table presents percentages weighted by plan weights (the inverse probability of selection into the sample). We found that approximately 3% of filers, when directly asked, realized they had incorrectly indicated providing employee health benefits. Ignoring those plans, our Form 5500 algorithm correctly indicated the plan's funding mechanism about 75% of the time. The Form 5500 algorithm, however, understated self-insurance components in about 18% of plans, and it overstated self-insurance components in 7% of plans.

Table 28. Overall Concordance of Funding Mechanism From Supplemental Data and Form 5500

Supplemental data	Form 5500			
	Fully insured	Mixed	Self-insured	Total
Fully insured	44.9%	4.0%	2.8%	51.8%
Mixed	3.3%	3.3%	0.0%	6.7%
Self-insured	9.5%	4.7%	24.7%	38.9%
Non-health plan	0.1%	0.6%	1.9%	2.7%
Total	57.9%	12.7%	29.4%	100.0%

Source: 2008 Form 5500 filings and OCA supplemental data.

Note: Percentages calculated using plan weights.

Table 29 shows the participant weighted counterpart of Table 28. The 3% of plans that indicated not providing health benefits represented only 1% of the participants. Ignoring those, the concordance rate of our Form 5500 algorithm was 73%.

Table 29. Overall Participant-Weighted Concordance of Funding Mechanism From Supplemental Data and Form 5500

Supplemental data	Form 5500			
	Fully insured	Mixed	Self-insured	Total
Fully insured	16.7%	3.8%	3.1%	23.7%
Mixed	3.9%	24.1%	0.0%	28.1%
Self-insured	9.8%	5.7%	31.8%	47.3%
Non-health plan	0.2%	0.6%	0.1%	1.0%
Total	30.6%	34.3%	35.1%	100.0%

Source: 2008 Form 5500 filings and OCA supplemental data.

Note: Percentages calculated using plan and participant weights.

Regardless of whether considering plans (Table 28) or participants (Table 29), the Form 5500 inferred funding mechanism appears to underestimate self-insurance rates and overstate fully insured and mixed-funding rates.

6. IMPLICATIONS FOR THE INFERENCE OF FUNDING MECHANISM

The findings described above provide valuable lessons for the classification of plans by funding mechanisms as based on information on Form 5500 filings. Additional insights were obtained directly from the funding mechanisms as reported on supplemental data responses. Our general approach was to improve the funding mechanisms algorithm such that the concordance with supplemental data responses was increased. However, we concluded that even the supplemental data responses were not always correct, because these responses were not always consistent with the information on Form 5500 filings. We, therefore, accepted discordance where supplemental data responses were at odds with Form 5500 information.

The revised algorithm generally follows the same logic as its predecessor. The main innovation is that the presence of a Schedule A is not always taken as evidence of insurance. In particular, the following three factors prompt the algorithm to reject evidence of insurance from a Schedule A.

1. The benefit type includes stop-loss insurance. Schedules A are frequently filed with multiple benefit types, such as "AI", where "A" denotes health benefits and "I" stop-loss coverage. The revised algorithm interprets this as stop-loss insurance for health benefits, rather than health insurance.
2. The Schedule A lists fees or commissions paid to a third-party administrator (TPA) (organization code "5" on any Line 3e of Schedule A). The revised algorithm interprets this as evidence of a TPA contract, rather than of health insurance.
3. The per-capita premium amount is so low that it is implausible that the Schedule A represents health insurance. Figure 2 shows the distribution of reported per-capita premiums of Schedules A that indicated providing health benefits (benefit codes A, J, K, or L). The per-capita premiums of a substantial portion of such Schedules A are low and cast doubt on whether the Schedule A reflected health insurance. The trough of the distribution is at \$1,600 per person covered per year. The revised algorithm assumes that Schedules A with per-capita premiums below \$1,600 (in 2008) do not in fact provide evidence of health insurance.¹⁷

¹⁷ The thresholds are calculated by year and are \$1,000 in 2001 and 2002; \$1,200 in 2003 and 2004; \$1,400 in 2005; \$1,500 in 2006; \$1,600 in 2007, 2008, and 2009; and \$1,700 in 2010.

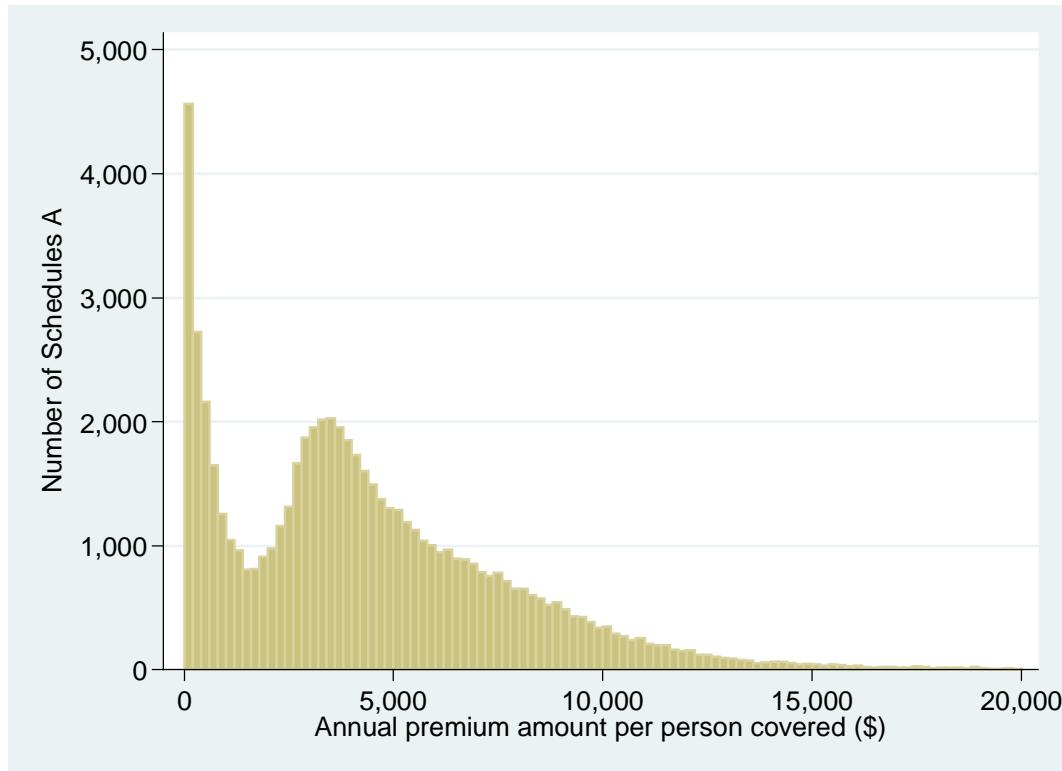


Figure 2. Annual Premium per Person Covered on Schedules A That Indicate Health Benefits (2008)

The revised algorithm to infer funding mechanism from information on Form 5500 filings takes the following approach. The description uses variable names from databases with Form 5500 filings as made publicly available by DOL; see Table 30 below.

1. Define health policies as Schedules A with benefit code ("wlfr_type_bnft_ind") including "A", "J", "K", "L". Some of these are in fact not health insurance policies; see below.
2. From Part 1 of Schedule A, determine for each Schedule A that looks like a health insurance contract ("A", "J", "K", "L") whether a third-party administrator (TPA) was paid. This is based on "insBroker_01_code" (paper filings) or "insBroker_code" (electronic filings). If any of these Part 1 entries has a value of "5", then a TPA indicator is set to 1. Further, benefit descriptions may suggest TPA involvement. For example, if "wlfr_type_bnft_oth_text" is "ADMINISTRATIVE SERVICES" or "ASO" or "CONTRACT ADMINISTRATOR", assume the contract involves a TPA. This applies to health benefits only; for example, a policy for dental benefits with a TPA is ignored.
3. Determine for each Schedule A whether it represents a stop-loss policy of a health plan. Exclude stop-loss policies of non-health (dental, vision, etc.) plans. That is, there is evidence of stop-loss insurance if "wlfr_type_bnft_ind" is equal to "I", but also if "wlfr_type_bnft_ind" includes an "I" as well as at least one of "A", "J", "K", "L". (However, for example "CI" is presumably stop-loss insurance for vision benefits, i.e., to be ignored.) Also, possibly

- misspelled benefit descriptions may suggest stop-loss coverage ("STOPIOSS", "REINSURANCE", "EXCESS INSURANCE", "AGGREGATE AND SPECIFIC", etc.)
4. If the funding or benefit code includes insurance (code 1 or 2) and there is no Schedule A health insurance contract, but there is a Schedule A with missing benefit type, assume that Schedule A is in fact for health insurance. Also, if funding/benefit code includes insurance (1 or 2) only (no trust, 3, or general assets, 4) and no Schedule A was attached at all, assume the non-existing Schedule A was a health insurance contract with number of persons covered equal to the number of plan participants at the end of the year.
 5. For Schedule A health policies, calculate the annual premium per person covered. Many Schedules A appear to list the premium in the wrong place. When premiums are missing or zero, sometimes the commissions/fees appear to represent premiums; other times the premium is listed in Part II (Investment and Annuity Contract Information) rather than Part III (Welfare Benefit Contract Information). Assume that the premium is the maximum of commissions, fees, Part II premiums, and Part III premiums ("wlfr_tot_earned_prem_amt," "wlfr_incurred_claim_amt," "wlfr_claims_chrgd_amt," "wlfr_tot_charges_paid_amt," "pension_prem_paid_tot_amt," "ins_broker_comm_tot_amt," and "ins_broker_fees_tot_amt"). The denominator for per-capita premium is the number of people covered ("ins_prsn_covered_eoy_cnt"). If "ins_prsn_covered_eoy_cnt" is zero or missing, replace it with number of (main Form 5500) participants at the end of the year, or at the beginning if still zero/missing.
 6. Assume that the Schedule A policy is not a health policy if the per-capita premium is so low that it could reasonably pay for health benefits, as described above.
 7. Assume that a Schedule A does not represent health insurance if it represents stop-loss insurance.
 8. Assume that a Schedule A does not represent health insurance if it lists payments to a TPA or if the benefit description suggests a TPA is involved.

Up to this point, the analysis was at the level of a Schedule A. The algorithm now collapses the data to the plan level.

9. For each plan, count the number of health insurance contracts (with per-capita premium above the threshold, no stop-loss, no TPA) and the number of people covered by such contracts.
10. For each plan, determine whether there was any stop-loss policy (as defined above)
11. For each plan, determine whether there was any TPA listed (as defined above)
12. A plan is assumed to be self-insured if there were no health insurance contracts and
 - a. the funding or benefit code included a trust ("3") or general assets ("4") or
 - b. a Schedule H was attached with total benefit payments ("tot_distrib_bnft_amt") not zero and not missing, or
 - c. a Schedule I was attached and benefit payments ("small_tot_distrib_bnft_amt") were not zero and not missing, or
 - d. any Schedule A that per Step 1 appeared to be a health policy listed a TPA, or
 - e. any Schedule A was for stop-loss coverage of health benefits.

13. A plan is also assumed to be self-insured if the filing was submitted on a *Form 5500-SF Annual Return/Report of Small Employee Benefit Plan*.
14. A plan is assumed to be mixed-funded if health insurance contracts covered less than 50 percent of plan participants and the funding or benefit codes listed a trust ("3") or general assets ("4")
15. A plan is also assumed to be mixed-funded if not self-insured and
 - a. a Schedule H was attached with total benefit payments ("tot_distrib_bnft_amt") not zero and not missing, or
 - b. a Schedule I was attached with benefit payments ("small_tot_distrib_bnft_amt") not zero and not missing
16. If a plan is neither self-insured or mixed-funded, it is assumed to be fully insured.

Table 30 lists the specific fields from the Form 5500 and its Schedules A, H, and I that the revised algorithm uses to infer funding mechanism from Form 5500 filings.

Table 30. Form 5500 Data Fields Used to Determine Health Plan Funding Type (2008)

Field Name	Description	Source
FUNDING_ARRANGEMENT_CODE	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) <ol style="list-style-type: none"> 1. Insurance 2. Section 412(e)(3) insurance contracts 3. Trust 4. General assets of the sponsor 	Form 5500, Line 9a
BENEFIT_CODE	The "benefit arrangement" is the method by which the plan provides benefits to participants. Plan benefit arrangement (check all that apply) <ol style="list-style-type: none"> 1. Insurance 2. Section 412(e)(3) insurance contracts 3. Trust 4. General assets of the sponsor 	Form 5500, Line 9b
TOT_PARTCP_BOY_CNT	Total number of participants at the beginning of the plan year	Form 5500, Line 6
SUBTL_ACT_RTD_SEP_CNT	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 7d
BENEF_RCVG_BNFT_CNT	Deceased participants whose beneficiaries are receiving or are entitled to receive benefits	Form 5500, Line 7e
TOT_ACT_RTD_SEP_BE_NEF_CNT	Number of participants as of the end of the plan year	Form 5500, Line 7f
INS_PRSN_COVERED_E_OY_CNT	Approximate number of persons covered at the end of the plan year	Schedule A, Line 1e

Field Name	Description	Source
INS_BROKER_COMM_TOT_AMT	Total amount of commissions paid	Schedule A, Line 2
INS_BROKER_FEES_TOT_AMT	Total fees paid	Schedule A, Line 2
INS_BROKER_01_CODE	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 2e
WLFR_TYPE_BNFT_IND	Type of benefit and contract types. A. Health (other than dental or vision), J. HMO contract, K. PPO contract, L. Indemnity contract, M. Other and other codes for stop-loss, dental, vision, life, disability, etc. More than one may be checked.	Schedule A, Line 7
WLFR_TYPE_BNFT_OTH_TEXT	Description of "Other" benefit and contract type.	Schedule A, Line 7m
PENSION_PREM_PAID_TOT_AMT	Premiums paid to carrier	Schedule A, Line 5b
WLFR_TOT_EARNED_PREM_AMT	Total earned premium amount	Schedule A, Line 8a4
WLFR_INURRED CLAIM_AMT	Incurred claims	Schedule A, Line 8b3
WLFR CLAIMS_CHRGD_AMT	Claims charged	Schedule A, Line 8b4
WLFR_TOT_CHARGES_PAID_AMT	Total premiums or subscription charges paid to carrier	Schedule A, Line 9a
INS_PRSN_COVERED_EOY_CNT	Approximate number of persons covered at the end of the plan year	Schedule A, Line 1e
TOT_DISTRIB_BNFT_AMT	Total benefit payments	Schedule H, Line 2e4
SMALL_TOT_DISTRIB_BNFT_AMT	Benefits paid (including direct rollovers)	Schedule I, Line 2e

Table 31 shows the overall concordance of funding mechanism reported in supplemental data responses and as inferred by the revised algorithm from Form 5500 filings. Ignoring plans that did not provide health benefits, the plan-level concordance is 83%, up from 75% based on the predecessor algorithm (see Table 28). Similarly, Table 32 shows the participant-weighted concordance. It improved from 73% (Table 29) to 75%.¹⁸ As noted above, our objective was not to maximize the concordance rate, but to increase it while recognizing that some Form 5500 filings were inconsistent with stated funding mechanisms on supplemental data responses. Put differently, we believe the revised algorithm is more accurate than as suggested by the concordance rates.

Table 31. Overall Concordance of Funding Mechanism From Supplemental Data and Form 5500 (Revised Algorithm)

Supplemental data	Form 5500			
	Fully insured	Mixed	Self-insured	Total
Fully insured	43.0%	1.7%	7.0%	51.8%
Mixed	2.0%	2.6%	2.1%	6.7%
Self-insured	0.7%	3.1%	35.1%	38.9%
Non-health plan	0.6%	0.1%	1.9%	2.7%
Total	46.3%	7.6%	46.1%	100.0%

Source: 2008 Form 5500 filings and OCA supplemental data.

Note: Percentages calculated using plan weights.

Table 32. Overall Participant-Weighted Concordance of Funding Mechanism From Supplemental Data and Form 5500 (Revised Algorithm)

Supplemental data	Form 5500			
	Fully insured	Mixed	Self-insured	Total
Fully insured	17.0%	1.9%	4.7%	23.7%
Mixed	3.6%	15.3%	9.2%	28.1%
Self-insured	0.6%	4.9%	41.8%	47.3%
Non-health plan	0.8%	0.1%	0.1%	1.0%
Total	22.0%	22.2%	55.8%	100.0%

Source: 2008 Form 5500 filings and OCA supplemental data.

Note: Percentages calculated using plan and participant weights.

¹⁸ Based on plans with anomalies in their filings only, the plan-weighted concordance increased from 62% using the prior algorithm to 73% with the revised algorithm, whereas the participant-weighted concordance improved from 74% to 79%.

7. CONCLUSION

This report presents an analysis of supplemental data that were collected to better understand Form 5500 filing anomalies, to gauge the accuracy of funding mechanism classifications based on Form 5500 filings alone, to help improve the algorithm that infers funding mechanism from Form 5500 filings, and to identify filing software checks or clarifications of Form 5500 instructions that may reduce the prevalence of anomalies in future Form 5500 filings. The results suggest that most anomalies were due to oversights or errors by the Form 5500 filers, but the process that captured data from Form 5500 filings into an electronic database also contributed to data anomalies. Not surprisingly, there tend to be multiple explanations for most anomaly types.

The analysis brought a new type of anomaly to the surface. A number of self-insured plans appeared to have filed details of their contract for services to administer medical claims on a Schedule A, indicating that the “insurance contract” provided health benefits. Some plans volunteered this information in written comments, but it may have been more widespread than can be inferred from Form 5500 filings or from responses to OCA letters. As a result, some self-insured plans may have been classified as fully insured or mixed-funded based on their Form 5500 filing, thus understating the prevalence of self-insurance.

The analysis suggests several potential checks in the ERISA Filing Acceptance System (“EFAST2”) software that is used to submit Form 5500 filings:

- If the funding or benefit arrangement (main Form 5500, lines 9a and 9b) includes insurance, at least one Schedule A should be attached.
- If a Schedule A is attached, the funding or benefit arrangement should include insurance.
- The Schedule A benefit type (Line 8) may not be left blank.
- If the filing is a welfare plan filing, entries in Schedule A, Part II (Investment and Annuity Contract Information) should be left blank.
- If the filing is a welfare plan filing, at least one entry in Schedule A, Part III (Welfare Benefit Contract Information), lines 9 or 10 should be filled out.
- If the funding or benefit arrangement (main Form 5500, lines 9a and 9b) includes a trust, a Schedule H or I should be attached.

Furthermore, the analysis suggests that some plans representatives may benefit from additional clarification in the Form 5500 instructions:

- The instructions to funding and benefit arrangements (Lines 9a and 9b of the main Form 5500) do not explicitly mention self-insurance. It may make sense to add one or more examples related to welfare plans.
- The instructions explicitly specify that the number of plan participants on the main Form 5500 (Lines 5 and 6) are exclusive of dependents. In contrast, the instructions are silent on inclusion or exclusion of dependents for the purpose of the “number of persons covered” by insurance contracts (Line 1e on Schedule A). Clarification on the later point may prove helpful.
- Since it is not uncommon for plans to file details of their administrative services contract on a Schedule A, it may be helpful for the instructions to

explicitly state that details of such contracts should not be filed on a Schedule A.

- It is our understanding that only plans that are funded through a trust should report service provider fees on a Schedule C. It may be helpful for the instructions to clarify this issue; it appears that some plan sponsors attached a Schedule C if they have an ASO contract even if they were not funded through a trust.

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