STRENGTHS AND LIMITATIONS OF FORM 5500 FILINGS FOR DETERMINING THE FUNDING MECHANISM OF EMPLOYER-PROVIDED GROUP HEALTH PLANS

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1. INTRODUCTION

This report presents an in-depth analysis of the interpretation and internal consistency of data that form the basis for an annual report of the Secretary of Labor ("Secretary"). Section 1253 of the Patient Protection and Affordable Care Act of 2010 (ACA) mandates that the Secretary prepare an annual report 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), supported the Secretary's report by producing *Self-Insured Health Benefit Plans* ("2011 Report").[1] The Secretary submitted to Congress the first such annual report in March 2011 ("2011 Report to Congress"), which included the 2011 Report as its Appendix B.[2]

As required by §1253 of the ACA, the 2011 Report's primary data source was the information provided by health plan sponsors on Form 5500 Annual Return/Report of Employee Benefit Plan ("Form 5500") filings. Beginning in 1975, the Department of Labor (DOL), the Internal Revenue Service (IRS), and the Pension Benefit Guaranty Corporation (PBGC) jointly developed the Form 5500 Series 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.[3]

The Form 5500 does not directly ask whether health benefits for all participants are insured through an external insurance company ("fully insured"), whether the plan sponsor bears the financial risks of health benefits for all participants ("self-insured"), or whether the benefits for some participants are fully insured and for other participants are self-insured ("mixed-funded"). The funding mechanism may be inferred from fields of the Form 5500 and its Schedules, but the information provided is sometimes incomplete or inconsistent. This report discusses challenges for the determination of plan funding posed by the design of Form 5500 and by anomalies in filings for the 2008 and 2009 plan years.[4] It also presents sensitivity analyses with alternative ways to identify self-insured plans in Form 5500 welfare plan data. Those sensitivity analyses highlight implications of data anomalies for identifying the distribution of plan funding mechanisms.

The remainder of this report is organized as follows. Section 2 briefly describes the contents of the Form 5500 and its Schedules. Section 3 details the baseline classification of funding mechanism, as used in the 2011 Report. Section 4 documents limitations for the determination of funding mechanism from Form 5500 data due to the form's design or inconsistent responses. Section 5 presents the sensitivity of the distribution of funding mechanism to alternative assumptions made to resolve Form 5500 limitations. Section 6 concludes. Finally, an Appendix contains computer code that was used in the 2011 Report to infer funding mechanism from Form 5500 filings.

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[1] Brien, Michael J. and Constantijn W.A. Panis. 2011. *Self-Insured Health Benefit Plans*. Report for the U.S. Department of Labor, Employee Benefits Security Administration.
[2] See http://www.dol.gov/ebsa/pdf/ACAReportToCongress032811.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.
[3] http://www.irs.gov/irm/part11/irm_11-003-007.html#d0e309.
[4] Plan year is defined as the year in which the plan reporting period began.

2. FORM 5500 CONTENTS

ERISA requires any administrator or sponsor of an employee benefit plan subject to ERISA to annually report details on such plans, unless they are exempt from filing. The Form 5500 was developed to satisfy this ERISA filing requirement. 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 (pension, health, disability, life insurance, etc.), 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). Some or all plan benefits may be provided through external insurance contracts. Form 5500 plan filings must include a Schedule A Insurance Information ("Schedule A") with details on each insurance contract (name of insurance company, type of benefit covered, number of people covered, expenses, etc.). If the plan operates a trust, a Schedule H Financial Information ("Schedule H") or Schedule I Financial Information – Small Plan ("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. Beginning with the 2009 plan year, many small plans may file a newly introduced Form 5500-SF Short Form Annual Return/Report of Small Employee Benefit Plan ("Form 5500-SF").

The Instructions for Form 5500 Annual Return/Report of Employee Benefit Plan ("Form 5500 Instructions") exempt certain welfare plans from filing 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.

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. This report centers on health benefits only, and 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.[5] Health benefits exclude dental or vision benefits. A welfare plan may feature multiple health benefits components, such as when the employer offers its employees both a health maintenance organization (HMO) and a preferred provider organization (PPO) option.

[5] Consider, for example, a company that provides short-term disability benefits to all its 500 employees and health benefits to only the subset who signed up for such benefits. Because of consolidated reporting, the number of plan participants would be 500, whereas the number of employees with health benefits coverage does not need to be reported.

3. HEALTH PLAN FUNDING CLASSIFICATION USED IN THE 2011 REPORT

The definitions of funding arrangement in the 2011 Report, which used Form 5500 filings for plan years 2000-2008, rely upon the fields of Form 5500 and its Schedules listed in Table 1.

Table 1. 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) (1) Insurance (2) Code 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) (1) Insurance (2) Code 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_BENEF_CNT	Number of participants as of the end of the plan year	Form 5500, Line 7f
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, and other codes for stop-loss, dental, vision, life, disability, etc. More than one may be checked.	Schedule A, Line 7

Field Name	Description	Source
INS_PRSN_COVERED_EOY_CNT	Approximate number of persons covered at the end of the plan year	Schedule A, Line 1e

Health plans are self-insured under the baseline definition, as used in the 2011 Report, if they (1) did not report any health insurance contracts and (2) attached a Schedule H or I or indicating that their funding or benefit arrangement was, at least in part, through a trust or from general assets. In other words, (1) none of the Schedules A covered medical expenses (i.e., benefit types are neither A=health, nor J=HMO, nor K=PPO, nor L=indemnity) and (2) a Schedule H or I was attached or the funding arrangement or benefit arrangement codes included a "3" (trust) or "4" (general assets).[6]

Health plans that are not self-insured may be fully insured or mixed-funded. Mixed-funded means that health benefits of some plan participants were self-insured, whereas those of other plan participants were underwritten by an insurance company (fully insured). Health plans are identified as mixed-funded if they were not self-insured and (1) the total number of people covered by health insurance contracts reported on Schedules A was less than 50% of the number of plan participants listed on the main Form 5500, or (2) the plan operates a trust that reportedly paid benefits directly to participants.[7]

Health plans that were neither self-insured nor mixed-funded were identified as fully insured.

The above classification is subject to operational implementation issues, as discussed next.

[6] Figure 1 below (page 8) reproduces the Form 5500's questions about funding arrangement and benefit codes.

[7] The second condition resolves an ambiguity: details of a trust are reported even though the funding arrangement or benefit codes did not mention a trust. See Table 7 below for a tabulation of this type of anomaly. Details of trusts are reported on Schedule H or, for plans with fewer than 100 participants, Schedule I. The latter does not ask about benefit payments to plan participants. We assume that trusts reported on a Schedule I paid benefits to participants.

4. LIMITATIONS AND ANOMALIES IN FORM 5500 HEALTH PLAN FILINGS

Limitations in Form 5500 Health Plan Filings

This section discusses limitations of the information on Form 5500 filings to determine health plans' funding mechanisms. The limitations may be due to the design of Form 5500 or to anomalies in actual filings.

A central issue stems from the fact that the Form 5500 allows plan sponsors to report multiple types of welfare benefits in a single Form 5500 filing. The funding arrangement and benefit codes, as reported on the main Form 5500, may thus relate to multiple plan components, including non-health benefits.[8] The funding mechanism or mechanisms of health benefits may be ambiguous if a plan sponsor files a Form 5500 for multiple welfare benefit types or for multiple types of health benefits.

For example, a plan sponsor may file details of its health, dental, vision, disability, and life insurance benefits on a single Form 5500. Some of these plans may be self-insured while others are fully insured. The Form 5500's welfare benefit code line could read "4A4D4E4H4B" where "4A" represents health benefits. The filing's funding and benefit arrangement codes could be "14," indicating that the plan is funded through a combination of insurance contracts ("1") and from general assets ("4"). In this example, the Form 5500's funding and benefit arrangement questions do not allow the filer (or the analyst) to distinguish which funding arrangement applies to which welfare benefit type. However, attached Schedules A may help resolve the ambiguity. For example, the filing may include Schedules A for dental and vision insurance contracts. Since there is no health insurance contract, the health benefits portion of the plan may be classified as self-insured.

In another example, a plan sponsor may report on both dental and health benefits in a single Form 5500 filing. Suppose the filing indicated funding both through an insurance contract and from general assets (i.e., funding arrangement and benefit arrangement codes were "14") and an attached Schedule A provided details of an HMO health insurance contract. This scenario is consistent with fully insured (HMO) health benefits and self-insured dental benefits. However, it is also consistent with fully insured HMO benefits, self-insured PPO benefits, and self-insured dental benefits. The ambiguity may arise when a company offers multiple health benefit options to its employees, such as an HMO and a PPO plan. Whether an employer offers multiple health benefit options to its employees is not disclosed on the Form 5500.

An attempt is made to resolve the ambiguity by comparing the number of plan participants (on the main Form 5500) and the number of "persons covered" on the health insurance contract (on Schedule A). The idea is that if the health insurance contract covers all health beneficiaries, the plan is fully insured, whereas coverage of only a subset of beneficiaries indicates mixed funding.

[8] A plan sponsor can report any combination of 18 distinct welfare benefit codes.

However, there are comparability issues. Schedule A asks about the number of "persons" who are covered by the insurance contract, whereas the main Form 5500 asks about the number of "participants" in the plan.[9] The Form 5500 Instructions do not specify whether or how these two concepts differ. There are many cases in which it appears that the filer had interpreted the concepts identically, but also many cases in which the number of people covered by a contract exceeded the number of participants, suggesting that they included dependents.

Further, the number of participants on the main Form 5500 need not be the same as the number of participants with health benefits. For example, a company may provide short-term disability benefits to all employees and health benefits to only a subset. The number of health benefit participants is not separately reported on Form 5500.

The algorithm used in the 2011 Report classifies health plans as mixed-funded if the total number of people covered by health insurance contracts reported on Schedules A is less than 50% of the number of plan participants listed on the main Form 5500. If the Schedule(s) A figure is greater than or equal to 50% of the main Form 5500 count, the health plan is assumed to be fully insured.

The 50% threshold is, to some extent, arbitrary. This report presents the implications of alternative thresholds for the funding mechanism distribution.

Other issues arose as well. In some cases, a health plan sponsor filed a Schedule A with details of a health insurance contract, but it reported zero persons covered by that contract (INS_PRSN_COVERED_EOY_CNT=0). A review of scans of hardcopy filings indicated that such filings had typically left the number of persons covered blank rather than zero. It was assumed for the purpose of the analysis that in such cases the majority of participants were covered by an external insurance contract, so that these health plans were classified as fully insured. This issue may have diminished with the 2009 plan year requirement that plans be filed electronically (see below).

Another plan design limitation concerns carve-out benefits. For example, a plan may purchase insurance coverage for mental health benefits and self-insure other health benefits. The plan's Form 5500 filing would include a Schedule A with details of the mental health carve-out, but it would not specify that the insurance covers only a subset of health benefits. The mixed-funding category in the 2011 Report refers to self-insurance of the benefits of some participants and full insurance of the benefits of other participants; it does not recognize mixed funding due to carve-out services.

Beginning with the 2009 plan year, Schedule I includes a new line item for administrative fees. Also beginning with the 2009 plan year, many small plans may file a new Form 5500-SF. The Form 5500-SF simplifies the Form 5500 to reduce the regulatory burden on small

[9] The number of people covered in Schedule A is measured at the end of the plan year. Similarly, the algorithm to determine funding status used the end-of-year participant count reported on the main Form 5500. A limited amount of data cleaning was required to calculate this number. The number should be on Line 7f, but some filers left 7f blank and reported the total on Line 7d. The difference between Lines 7f and 7d is Line 7e, which is not a required field for welfare plans. If Line 7f was blank or zero, we used the sum of Lines 7d and 7e. If this number was also zero or blank, the number of participants at the beginning of the year (Line 6) was used as a proxy.

companies.[10] Most employers with plans fully funded through a Voluntary Employee Beneficiary Association (VEBA) or taxable trust and with fewer than 100 participants and no type of alternative investment are now allowed to use Form 5500-SF instead of Form 5500.

Anomalies in Form 5500 Health Plan Filings

This section discusses limitations to determine health plans' funding status due to anomalies in filings of Form 5500. The analysis is based on the year in which the plan reporting period began ("plan year") rather than the year in which it ended ("statistical year"), because it correlates closely with the filing mode (paper versus electronic). About 96% of plans filed their plan year 2008 report in paper form and almost 100% of plan year 2009 filings were submitted electronically. The focus is on the most recent year for which we have data, plan year 2009. However, the analysis sample does not contain all filings for plan year 2009 because the data that were made available to us are restricted to filings with a reporting period that ended in or before 2009. The analysis sample thus excludes filings with a reporting period that began in 2009 and ended in 2010. Based on older data, we estimate that this exclusion amounts to roughly one-third of all plan year 2009 filings.

Throughout the report, we note the extent to which plan year 2009 anomalies deviate from those for plan year 2008, when health plans were filed mostly in paper form.

As noted above, health plan funding status may be determined in part from Line 9a or 9b of the main Form 5500 (see Figure 1).

9a Plan funding arrangement (check all that apply)	**9b** Plan benefit arrangement (check all that apply)
(1) ☐ Insurance	(1) ☐ Insurance
(2) ☐ Code section 412(e)(3) insurance contracts	(2) ☐ Code section 412(e)(3) insurance contracts
(3) ☐ Trust	(3) ☐ Trust
(4) ☐ General assets of the sponsor	(4) ☐ General assets of the sponsor

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

Options (1) and (2) indicate that benefits are fully insured, whereas (3) and (4) suggest self-funding. Multiple arrangement options may be checked; for example, "13" suggests that at least one welfare plan component was fully insured and at least one was self-insured (see above). If option (1) or (2) is specified, one or more Schedules A should be attached with details of the underlying insurance contract. Similarly, details of a trust (option 3) should appear on an attached Schedule H or I.

Zero or Missing Number of Participants

The main Form 5500 asks for the total number of participants at the beginning of the plan year. Excluding direct filing entities (DFEs) and terminated plans, this number is zero for 98 existing health plans and 174 new health plans[11,12] (see Table 2).

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[10] Federal Register: November 16, 2007 (Volume 72, Number 221).
[11] Terminated plans are plans that terminated during the plan year. DFEs are certain trusts, accounts, and investment arrangements filing a Form 5500 as a DFE in accordance with the Form 5500 Instructions.

Table 2. Number of Health Plan Participants at the Beginning of the Plan Year (2009)

	Freq.	Percent
Non-zero participants	31,651	99.1%
Zero participants (existing plan)	98	0.3%
Zero participants (new plan)	174	0.5%
Total	31,923	100.0%

Source: Form 5500 health plan filings.
Note: Excludes direct filing entities and terminated plans.

The electronic database with Form 5500 health 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 Form 5500, 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 related to that mandate excluded health plans that were not required to file, i.e., health plans with fewer than 100 participants that did not hold assets in a trust. Including new and existing health plans, 544 health plans reportedly had zero participants in plan year 2008. Of those, 159 filed a Schedule H or I with details of their trust. Those 159 health plans were included in the analysis; the others were excluded because the number of participants was reportedly under 100. However, if their number of participants was not zero and in fact greater than 100, they could have been included in the analysis.

Electronic filing appears to have reduced the number of health plans reporting zero (or blank) participants by about one-half. In plan year 2008, the number was 544, compared with 272 in 2009.

Implausible Number of Participants

The number of participants reported on the main Form 5500 is not always plausible. For example, in plan year 2008, 16 health plans reported more than 400,000 participants even though a manual review showed that their sponsors had far fewer than 400,000 employees. One health 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 health plans that reported fewer than 400,000 participants.

Health plans that offer benefits through external insurance are required to attach a Schedule A which, among other things, 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 3 shows a comparison of the total number of people covered on any health insurance

[12] A new plan in 2009 is defined here as a plan that filed a Form 5500 in 2009 but not in any other year from 2000-2008. The longitudinal match is based on Employer Identification Number (EIN) and plan number only.

contract (from Schedules A) to the number of plan participants (from the main Form 5500).[13]

Table 3. Distribution of the Ratio of Number of People Covered by Health Insurance Contracts to Number of Plan Participants (2009)

	Freq.	Percent
Less than or equal to 0.1	950	4.5%
Between 0.1 and 1	6,104	29.0%
Equal to 1	4,442	21.1%
Between 1 and 10	9,529	45.2%
Greater than or equal to 10	40	0.2%
Total	21,065	100.0%

Source: Form 5500 health plan filings.

On 950 health plan filings the number of persons covered by health insurance contracts was less than or equal to 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 remainder.) Also, on 40 Form 5500 filings the number of people covered by health insurance contracts was more than 10 times as high as the number of plan participants. For 21% of filings with health insurance contracts, the "number of persons covered" by the health insurance contract(s) was equal to the number of plan participants, suggesting that many plan sponsors interpreted the two concepts identically.

The above comparison applies to plans with one or more external health insurance contracts only, i.e., with Schedules A that specify "Health," "HMO," "PPO," or "Indemnity" benefits (Schedule A, Line 7 in 2008 or Line 8 in 2009; see Table 1). Form 5500 does not ask about the number of people covered by self-insured health benefits.

The patterns of implausible numbers of participants were comparable in plan years 2008 and 2009.

Incomplete Information About Health Insurance Contracts

If the main Form 5500's funding or benefit arrangement is "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 missing Schedules A and Schedules A with missing (blank) benefit type.

Table 4 tabulates whether health plan filings attached any Schedule A, by funding and benefit arrangements (Lines 9a and 9b). Out of 10,373 health plans that specified funding and benefit arrangements involving only insurance contracts (options 1 and/or 2, see Figure 1), 110 did not attach any Schedule A. Out of 14,482 health plans that specified both insurance-based arrangements and arrangements through a trust and/or from general assets, 161 did not attach any Schedule A. Finally, 209 health plans attached one or more

[13] As discussed earlier on page 7, the numbers are not strictly comparable.

Schedules A even though they did not specify any insurance-based funding or benefit arrangements.[14]

Table 4. Presence of Any Schedule A by Plan Funding and Benefit Arrangements (2009)

	Attached Schedule A		
	No	Yes	Total
Specified insurance only	110	10,263	10,373
Specified insurance and trust/general assets	161	14,321	14,482
Did not specify insurance	5,345	209	5,554
Total	5,616	24,793	30,409

Source: Form 5500 health plan filings.

The move to electronic filings appears to have reduced the anomalies of attached Schedules A. The incidence of Schedule A anomalies was about 50% higher in plan year 2008 than in plan year 2009.

Other anomalies arose from missing (blank) Schedule A benefit types. Table 5 tabulates the benefit types of Schedules A (health, missing, other) for health plans that did and health plans that did not attach any health insurance Schedule A. The unit of observation is a Schedule A. There were 39,973 Schedules A filed with details of a health insurance contract. They were attached to health plan filings which, in addition to one or more health insurance Schedules A, also attached 50,263 Schedules A with details on other types of insurance (vision, dental, life, etc.) and 603 Schedules A with insurance details that did not list the insurance type. Separately, 902 Schedules A had a missing benefit type and were attached to health plan filings that did not include any health insurance Schedule A. As explained below, the fact that benefit type was missing on those 902 Schedules A is particularly challenging for the determination of funding mechanism. In total, 1,505 Schedules A did not specify the type of benefit that was covered by the insurance contract.

Table 5. Schedule A Benefit Type by Whether the Plan Attached a Health Insurance Schedule A (2009)

	Schedule A benefit type			
	Health	Missing	Other	Total
Plan attached a health insurance Schedule A	39,973	603	50,263	90,839
Plan did not attach a health insurance Schedule A	0	902	13,988	14,890
Total	39,973	1,505	64,251	105,729

Source: Form 5500 health plan filings.

Plans that attached health insurance details may be classified as fully insured or mixed-funded, depending on the number of people covered by the health insurance contract(s) relative to the number of plan participants. Plans without evidence of health insurance but one or more Schedules A with missing benefit type (such as the 902 Schedules A in Table 5) may be classified as fully insured, mixed-funded, or self-insured, depending on the

[14] There is anecdotal evidence of misinterpretation of the funding and benefit arrangement questions. We spoke with the preparer of Form 5500 filings of a fully insured health plan who specified funding from general assets because, as he put it, the company uses general assets to pay the insurance premiums.

assumptions made regarding the missing benefit types. The 2011 Report assumed that a Schedule A with missing benefit type reflected health insurance if the plan's funding or benefit arrangement was, at least in part, through insurance and no (other) Schedule A with evidence of health insurance was attached. The next section presents a sensitivity test of this assumption.

Table 6 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 439 plans that 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 6. Schedule A Combinations by Whether the Plan Attached a Health Insurance Schedule A (2009)

	1+ Health, no missing	1+ Health, 1+ missing	No health, 1+ missing	No health, no missing
Plan attached a health insurance Schedule A	19,123	394	0	0
Plan did not attach a health insurance Schedule A	0	0	439	4,837
Total	19,123	394	439	4,837

Source: Form 5500 health plan filings.

Missing benefit types on Schedules A were more prevalent among plan year 2008 filings than among plan year 2009 filings: 724 plans in 2008 did not attach a health insurance Schedule A, but at least one of their Schedules A had a missing benefit type, compared with 439 in 2009.

Incomplete Information About Trusts

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

Table 7 tabulates whether plan filings included a Schedule H or I by whether their funding or benefit arrangements specified a trust. Out of 3,352 plans that indicated a funding or benefit arrangement through a trust, 7 did not attach a Schedule H or I with details on that trust. Conversely, 650 plan filings attached a Schedule H or I even though neither their plan funding nor their plan benefit arrangement mentioned a trust.

Table 7. Presence of a Schedule H or I by Whether the Plan Funding or Benefit Arrangement Included a Trust (2009)

	Attached Schedule H or I		
	No	Yes	Total
Specified trust	7	3,345	3,352
Did not specify trust	26,407	650	27,057
Total	26,414	3,995	30,409

Source: Form 5500 health plan filings.

In plan year 2008, the trust schedule anomalies were about twice as common as in plan year 2009.

5. SENSITIVITY ANALYSES OF CLASSIFICATION ALGORITHMS

As discussed earlier, the information on Form 5500 filings is not always complete and consistent. Our 2011 Report made certain assumptions to determine funding status. This section considers alternative assumptions and shows how sensitive the funding classification is to such assumptions.

Among others, the baseline classification as used in the 2011 Report made the following assumptions:

- Health plans that are not unambiguously self-insured are considered mixed-funded if the total number of people covered by health insurance contracts on Schedules A is less than 50% of the number of plan participants listed on the main Form 5500. This section considers alternative thresholds of 25% and 75%.
- If there is a Schedule A for a health insurance contract with reportedly zero people covered by that contract, the baseline assumes that the insurance contract covers the majority of plan participants. This section alternatively assumes that the insurance contract covered a minority of plan participants. In addition, it alternatively assumes that the Schedule A with reportedly zero people covered in fact did not reflect a health insurance contract.
- Under the baseline, a Schedule A with missing benefit type is assumed to reflect a health insurance contract if the plan's funding or benefit arrangement is, at least in part, through insurance and no (other) Schedule A with evidence of health insurance was attached. This section alternatively assumes that the insurance benefit was something other than a health benefit.

Mixed Funding Defined on the Basis of a 50% Rule

Table 8 presents the sensitivity of the distribution of health plans' funding mechanisms to alternative thresholds for the purpose of identifying mixed-funded plans. There is no implication for self-insured plans; at issue is whether plans are considered fully insured or mixed-funded. Depending on the participant count threshold, the fraction of plans that are identified as fully insured ranges from 51.2% to 56.7%, whereas the fraction identified as mixed-funded ranges from 10.9% to 16.5%.

Table 8. Implications for Plans' Funding Mix of Alternative Mixed-Funding Thresholds (2009)

Assumption	Fully insured	Mixed-funded	Self-insured
25%	56.7%	10.9%	32.3%
50% (baseline)	54.6%	13.1%	32.3%
75%	51.2%	16.5%	32.3%

Source: Form 5500 health plan filings.

Schedule A for Health Insurance Reportedly Covered Zero People

Table 9 shows how the funding mix changes depending on the assumption regarding the number of people covered by health insurance contracts that reported coverage of zero people or left the coverage field blank. The baseline assumption is that the majority of participants were covered. In contrast, an assumption that a minority of participants were covered would lower the estimated fraction of fully insured plans by approximately 0.8 percentage points, compared to the mix under the baseline assumption. The fraction of plans that were identified as self-insured is unaffected, because any health insurance contract is interpreted as evidence that the plan was fully insured or mixed-funded.

Table 9. Implications for Plans' Funding Mix of Alternative Interpretations of Zero Covered Persons on Schedule A Insurance Contracts (2009)

Assumption	Fully insured	Mixed-funded	Self-insured
Majority (baseline)	54.6%	13.1%	32.3%
Minority	53.8%	13.9%	32.3%
Schedule A covered a non-health benefit	53.8%	13.5%	32.7%

Source: Form 5500 health plan filings.

Table 9 also shows the sensitivity of funding mix to an alternative assumption, namely that the Schedule A with zero (or missing) people covered was in fact for a type of insurance other than health. For example, a self-insured plan sponsor may have erroneously filed a Schedule A for administrative services only, specified that it was for health benefits, but left the coverage number blank. In other words, the anomaly may have been not in the number of people covered, but in the type of contract. This interpretation would lift the fraction of plans identified as self-insured or mixed-funded by 0.8 percentage points relative to the baseline and correspondingly reduce the fraction of fully insured plans.

The results were similar for plan year 2008.

Missing Benefit Type on Schedule A

As shown earlier in Table 5 and Table 6, some plans attached a Schedule A without specifying the benefit and contract type. If the plan's funding or benefit arrangement was, at least in part, through insurance and no (other) Schedule A with evidence of health insurance was attached, the baseline assumption is that the Schedule A related to health insurance. Table 10 presents the sensitivity of funding mix to the alternative assumption that the Schedule A related to something other than health insurance. The alternative assumption would identify 33.3% of plans as self-insured, i.e., about 1 percentage point more than under the baseline assumption (32.3%).

Table 10. Relaxing the Assumption that Schedule A Insurance Contracts with Blank Benefit Type Cover Health Benefits (2009)

Assumption	Fully insured	Mixed-funded	Self-insured
Assume health benefits (baseline)	54.6%	13.1%	32.3%
Assume non-health benefits	53.7%	13.0%	33.3%

Source: Form 5500 health plan filings.

6. CONCLUSION

This report documents a number of anomalies in Form 5500 filings that may affect plans' funding mechanism classification. We tabulate the incidence of such anomalies and discuss the assumptions made to resolve them and to identify funding mechanisms. Generally, the incidence of anomalies was lower in filings for plan year 2009 than for plan year 2008. Presumably, the improved integrity of filings related to a transition to electronic filing.

This report also presents the sensitivity of funding mix to three sets of alternative assumptions. The overall conclusion is that the distribution of funding mechanism is fairly robust to alternative assumptions. The fraction of plans that were identified as self-insured generally changed by no more than 1 percentage point. The fraction of plans that were identified as mixed-funded was somewhat more sensitive, but where that was particularly the case, the baseline assumes a middle ground between more extreme assumptions.

APPENDIX: COMPUTER CODE TO DETERMINE SELF-INSURANCE IN FORM 5500 FILINGS

The following Stata computer code was used to derive the funding mechanism from Form 5500 data.[15]

```
/* numhealth is the number of Schedule A health-insurance contracts    */
/* for a particular filing_id.                                         */
/* healthcover is the number of persons covered by the health          */
/* insurance contracts                                                 */

gen self_insured=0;
replace self_insured=1 if (numhealth==0 &
      (strpos(funding_arrangement_code,"3")+strpos(funding_arrangement_code,"
      4")+strpos(benefit_code,"3")+strpos(benefit_code,"4")>0));
replace self_insured=1 if (numhealth==0 & (sch_h_attached==1 |
      sch_i_attached==1));
replace self_insured=. if (include==0);

gen funding = 0;
replace funding = 1 if (self_insured==0 &
      healthcover<(.5*participants_end_of_year));
replace funding = 1 if (self_insured==0 & sch_h_attached==1 &
      distrib_drt_partcp_amt>0 & distrib_drt_partcp_amt!=.) ;
replace funding = 1 if (self_insured==0 & sch_i_attached==1);
replace funding = 2 if (self_insured==1);

/*
funding = 0 : Fully insured
funding = 1 : Mixed-funded
funding = 2 : Self-insured
*/
```

[15] The 2009 data were converted into the format of the previous years, so this code applies to both plan year 2009 and earlier plan years.

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