An Analysis of Benefit Plan Auditors

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DISCLAIMER

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EXECUTIVE SUMMARY

The U.S. Department of Labor (DOL) Employee Benefits Security Administration (EBSA) administers and enforces the reporting, disclosure, and fiduciary requirements of Title I of the Employee Retirement Income Security Act of 1974 (ERISA). EBSA's Office of the Chief Accountant, Division of Accounting Services enforces annual audit requirements of employee benefit plans. To assess whether Certified Public Accountants (CPAs) perform benefit plan audits in accordance with industry standards, EBSA reviews the audit work papers of a subset of the overall population of benefit plan audits, completes site visits for the audit firms that perform more than 100 benefit plan audits each year, and performs numerous liaison and outreach activities with professional groups that service employee benefit plans.

This report presents findings from a trend analysis of CPA selection and switching behavior over time through examination of Form 5500 filing data and audit reviews conducted by EBSA between Plan Years 2011 and 2015. Three major findings of this Benefit Plan Auditor Analysis are:

1. Employee benefit plan practice size is the strongest predictor of CPA firm exit from the industry.[1] Receiving a major deficiency from EBSA based on review of audit work papers also predicts CPA exit, when controlling for employee benefit plan practice size. An EBSA review alone has no statistically significant association with CPA exit, when controlling for employee benefit plan practice size and major deficiency in the model.

2. On average, 7.5% of plans switch CPA firms every year. Switch rates do not show significant differences across plan entity type or plan assets. Switch rates are highest for plans that choose CPA firms that audit fewer than six plans per year. Switch rates decrease as plans choose CPA firms that perform more benefit plan audits.

Reasons for terminating a CPA firm fall into nine broad themes. About half of the explanations reported on filings indicated that the plan had not changed CPA firms, but the CPA firm had changed names or other identifying information. Summit cleaned the data to account for these mergers and name changes to the best of our ability with the information available. Reasons for terminating a CPA firm include: bidding, staff changes, business relationship, satisfaction with service, standard business practice, proximity to CPA firm, independence concerns, and size of firm.

3. Plans with an audit that received a major deficiency (of audit work papers) are more likely to switch CPA firms than all other plans. When controlling for plan and CPA characteristics, EBSA review alone does not increase the likelihood of switching CPA firms. Larger plans are less likely to switch CPA firms following a negative EBSA review than smaller plans. Plans that do switch are switching away from CPAs that audit very few employee benefit plans and toward CPAs that audit more employee benefit plans.

All of this evidence suggests that the population of CPAs is changing and that the more benefit plan audits a CPA firm performs, the more likely that auditor is to stay in the market. These findings on the

[1] For purposes of this analysis, an exit is defined as a CPA that is present in the database during at least one year in the study period, and is not present in a subsequent year. We assume the CPA's absence in subsequent years stems from the CPA exiting the benefit plan industry, but may also be the result of a merger with another firm.

benefit plan CPA population may be helpful for informing future outreach, monitoring, and research efforts by EBSA.

TERMINOLOGY

We use the following terms throughout this report:

- **Audit Quality Study**—An EBSA report, released publicly in May 2015, that assessed the quality of audits performed on ERISA-covered employee benefit plans for Plan Year 2011. To complete this study, EBSA examined the quality of the audit work papers for a statistically valid sample of 400 audits. EBSA's work reviewing and assessing the quality of audit work papers from the sampled group of Plan Year 2011 plan audits in this study took place in 2014. Per Office of Inspector General's (OIG's) recommendation, EBSA typically conducts a statistically based study of the quality of employee benefit plan audits every five or six years.
- **Audit status**—An "acceptable" status indicates that no deficiencies were found. An "acceptable, minor" status indicates that minor deficiencies were found, but the audit was still acceptable. An "unacceptable, minor" status indicates that minor deficiencies were found resulting in an unacceptable audit. An "unacceptable, major" status indicates that major deficiencies in the audit were found during EBSA's review. This can include reasons such as no evidence of work completed for an entire area of the audit.
- **CPA** – Certified Public Accountant. In this report, CPA is used interchangeably with the terms "CPA firm" and "Auditor."
- **Employee benefit plan practice size**—The number of benefit plans a CPA audits in a given year.
- **Entrance rate**—The number of CPAs that audited plans for the current filing year but not the previous year, divided by the number of CPAs that audited filings in the current year.
- **Exit rate**—The number of CPAs that performed audits for the previous filing year and did not perform audits for the current year, divided by the number of CPAs that performed audits in the previous year.
- **Filing Year**—The calendar year containing the date on which the Form 5500 was submitted to, or formally filed with, DOL. This term is capitalized when referring to a specific year, and lower case otherwise.
- **Plan Year**—The year containing the first day of the plan year. Generally, the plan year is the same year designated on the Form 5500. For example, a plan year beginning December 1, 2016 is referred to as Plan Year 2016 and the 2016 Form 5500 is properly filed for that plan year. This term is capitalized when referring to a specific year and lower case otherwise.
- **Switch rate**—The percentage of plans that switched CPAs, calculated as the number of plans that filed with a different CPA than their previous filing, divided by the number of plans that filed Form 5500 during the specified time period. In general, the "Plan Behavior Following EBSA Review" section indicates a switch during a time period spanning four years, while the "Changes in Plan Selection of a CPA over Time" section indicates a switch during a time period of one year.

BENEFIT PLAN AUDITOR ANALYSIS

1 INTRODUCTION

The U.S. Department of Labor (DOL) Employee Benefits Security Administration (EBSA) administers and enforces the reporting, disclosure, and fiduciary requirements of Title I of the Employee Retirement Income Security Act of 1974 (ERISA). EBSA's Office of the Chief Accountant, Division of Accounting Services enforces annual audit requirements of employee benefit plans. To assess whether Certified Public Accountants (CPAs) perform benefit plan audits in accordance with industry standards, EBSA reviews the audit work papers of a subset of the overall population of benefit plan audits, completes site visits for the audit firms that perform more than 100 benefit plan audits each year, and performs numerous liaison and outreach activities with professional groups that service employee benefit plans.

To assess the quality of benefit plan audits across the industry, EBSA produced an Audit Quality Study in 2015,[2] which evaluated deficiencies among a statistically significant sample of audits completed in Plan Year 2011. The study revealed that, while the overall major audit deficiency rate was 39%, audit quality varied greatly by the size of the CPA's benefit plan practice. CPA firms performing between one and two benefit plan audits per year had a deficiency rate of 76%, compared with a deficiency rate of 12% for the CPA firms that performed at least 100 audits per year.

DOL contracted Summit Consulting, LLC (Summit) to conduct this Benefit Plan Auditor Analysis to explore year-over-year changes in the benefit plan population, effects on audit quality when plan administrators change CPA firms, and whether plan administrators choose CPA firms that historically perform high- or low-quality audit work. Additionally, this study examines what happens after a CPA firm receives a deficient audit assessment from EBSA.

This report presents findings from a trend analysis of CPA selection and switching behavior over time using Form 5500 filing data and EBSA audit reviews for Plan Year 2011 through Plan Year 2015. The results are organized into three major sections:

1. Examination of trends in the CPA population and behavior over time
2. Examination of plan behavior following an EBSA review
3. Description of trends in plan selection of a CPA over time

In the next section, we outline the research questions and methodology employed in the study. Section 3 provides a description of the data sources used, with additional detail offered in an appendix. Section 4 discusses the study's findings for each of the research questions. Section 5 explores conclusions drawn from the study's findings, along with implications for future research.

[2] *Assessing the Quality of Employee Benefit Audits.* U.S. Department of Labor Employee Benefits Security Administration, May 2015. Accessed October 2017. https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/assessing-the-quality-of-employee-benefit-plan-audits-report.pdf.

2 RESEARCH QUESTIONS AND METHODS

To understand what happens to audit quality when plan administrators change CPA firms and whether they choose firms that historically perform high- or low-quality audit work, this study examines a series of research questions on the benefit plan CPA population across three broad topics:

- Trends in the CPA population and CPA behavior over time
  - How does the population of CPAs change over time?
  - How do CPAs behave after contact with EBSA?
  - What CPA characteristics predict CPA exit from the benefit plan industry?
- Plan behavior following EBSA review
  - Are plans more likely to switch CPAs after any EBSA review?
  - How long does it take plans to switch CPAs after an unfavorable review?
  - Among plans that switch CPAs, how does the pre-switch CPA compare to the post-switch CPA?
  - Does EBSA review predict a plan's decision to switch CPAs?
- Changes in plan selection of a CPA over time
  - What plan-level characteristics are associated with a higher switch rate?
  - Is CPA employee benefit plan practice size associated with a higher switch rate?
  - What reasons do plans provide for terminating a CPA on Form 5500?
  - What plan and CPA characteristics predict a plan's decision to switch CPAs?

Each year, EBSA changes its selection of audits to review based upon its targeting and priorities for that year. However, EBSA randomly selected audits for review in the Audit Quality Study from the population of all plans in Plan Year 2011. We use this randomly selected population to define the model population for questions that include the effect of EBSA review and the effect of a major deficiency finding.

The study uses a combination of descriptive analysis and regression analysis to examine each question and generate findings on the benefit plan CPA population that EBSA can use to inform outreach, monitoring, and future research efforts.

3 DATA SOURCES

We used two data sources to answer our research questions: Form 5500 filing data and the Audit Quality Work Paper Review database. Each research question requires a unique database comprised of one or both data sources. The following section describes the two data sources, and Appendix C describes the datasets constructed to answer each research question.

3.1 FORM 5500

EBSA created and maintains the Form 5500 database, a collection of Form 5500 filings submitted electronically by benefit plan administrators to the ERISA Filing Acceptance System2. The system contains 53 databases representing the population of Form 5500 schedules that a plan can file along with corresponding reference tables. The population for this study refers to the benefit plans that filed a Form 5500 in at least one plan year for Plan Years 2011 through 2015.

Schedule H of Form 5500 identifies the CPA firms that audited each filing by name and/or Employer Identification Number (EIN), and Schedule C of Form 5500 identifies CPA firm termination information at the date of data extraction. Schedule H includes financial information that a pension or welfare benefit plan must file when it covers 100 or more participants at the beginning of the plan year. Large pension and welfare plans must file Part III of Schedule C if an accountant or actuary was terminated.[3] We did not include Short Form filings because they do not contain accountant information.

Filers manually input Form 5500 information, which can cause differences between inputs as well as errors. To appropriately categorize plan and CPA information filed across the five-year timespan, we cleaned some of the Form 5500 filings by correcting filings with plan and CPA errors and reconciling differences between the way filers submitted the same plan and CPA information in Form 5500. Additionally, we cleaned the data to account for CPA firm mergers and name changes using information available at the time of the study. See Appendix C for additional details regarding data preparation.

The analytical dataset for Form 5500 is unique by plan EIN, plan number, and plan year. We applied the following rules during the cleaning process:

- Select the Best Filings identified by DOL's Best Filing Algorithm.
- For plans with multiple Best Filings, select the latest filing for each plan per plan year.
- Drop Direct Filing Entities.[4]
- Remove filings without all plan and accountant information.

Once we cleaned the filing data, we mapped plan filings longitudinally across plan years. We created indicator variables to signify when a plan switched CPAs between 2011 and 2012, 2012 and 2013, 2013 and 2014, and 2014 and 2015. A switch in CPAs is identified when the CPA firm that audits a plan in one

[3] Instructions for Form 5500 provide additional information on the filing criteria: https://www.dol.gov/sites/default/files/ebsa/employers-and-advisers/plan-administration-and-compliance/reporting-and-filing/form-5500/2016-instructions.pdf.
[4] Direct Filing Entities include common collective trusts, master trusts, group insurance arrangements, pooled separate accounts, and 103-12IEs. Additional information on Direct Filing Entities is included in the Form 5500 instructions.

year is different from the CPA firm listed for the following year. One caveat to this definition involves merger activity. The data cleaning process adjusts for reported mergers based on information available at the time of the study but cannot account for unreported mergers. In this case, we count an unreported merger as a switch. If a plan skipped a filing, we classified the year without a filing as "no switch," and compare the following year's CPA to the CPA for the last filing submitted. Table 1 provides examples of CPA switches found in Form 5500 data and how we classified them.

Table 1: Examples of CPA Firm Switches

Plan	2011 Firm	2012 Firm	2013 Firm	2011–2012 Switch	2012–2013 Switch
Pension Plan A	Firm 1	Firm 2	Firm 2	Yes	No
Pension Plan B	Firm 1	.	Firm 1	No	No
Pension Plan C	Firm 1	.	Firm 2	No	Yes

3.2 AUDIT QUALITY WORK PAPER REVIEW DATABASE

The Audit Quality Work Paper Review database contains the results of EBSA's work paper reviews. The work paper reviews completed by EBSA each year primarily focus on those CPA firms that conduct fewer than 100 plan audits annually. These firms represent 98% of the over 5,000 CPA firms who perform plan audits. The remainder of EBSA's work to ensure the quality of benefit plan audits is done through CPA firm inspections, the results of which are not addressed through this report. Accordingly, the decision to focus this report on the population of plans with CPAs who audit fewer than 100 employee benefit plans annually is due to the nature of EBSA's Audit Quality enforcement efforts. EBSA conducts approximately 300 audit reviews every year and selects the review population at the start of each fiscal year. EBSA then reviews the audit associated with the most recent filing available at the time of review opening to identify any deficiencies or incorrect statements in the filing, collecting and housing the audit reviews in an internal database. Information collected includes results of the review, number of deficiencies, and audit fees. This database includes reviews of audits for Plan Years 2000 through 2015 and contains 5,580 observations. EBSA maintains the results of work paper reviews conducted as part of the 2015 Audit Quality Study in a separate database (referred to as the Audit Quality Study database),[5] which includes 400 observations from Plan Year 2011. We merged these two databases for a total of 5,980 observations, representing 5,967 unique plan, plan year, and CPA combinations.

The combination of plan, plan year, and CPA uniquely identifies observations. We dropped observations repeated in the Audit Quality Study database for statistical purposes and clarified other duplicates with EBSA to determine which observations were most appropriate to keep. Data cleaning did not affect the number of unique plans, unique combinations of plan and plan year, or unique combinations of plan, plan year, and CPA.

For analysis purposes, we excluded (1) reviews with incomplete review status, (2) reviews with missing CPA EIN that could not be determined using Form 5500 data, (3) reviews closed before 2008, (4) reviews with no Form 5500 filings submitted since the review closed, and (5) reviews with missing "date closed" information. After following these steps, there were 3,252 reviews remaining for the merge with the

[5] *Assessing the Quality of Employee Benefit Audits.* U.S. Department of Labor Employee Benefits Security Administration, May 2015. Accessed October 2017. https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/assessing-the-quality-of-employee-benefit-plan-audits-report.pdf.

Form 5500 data. Each research question uses a slightly different dataset. Appendix C describes the preparation of each.

4 DESCRIPTIVE RESULTS AND REGRESSION ANALYSIS

This section presents descriptive results and regression analysis organized into three major topics:

1. Section 4.1 examines trends over time in the CPA population and CPA behavior after contact with EBSA.
2. Section 4.2 explores plan behavior following EBSA review, specifically whether there is an increase in the number of plans that switch CPAs.
3. Section 4.3 looks at the entire filing population and general trends in plan switching behavior over time.

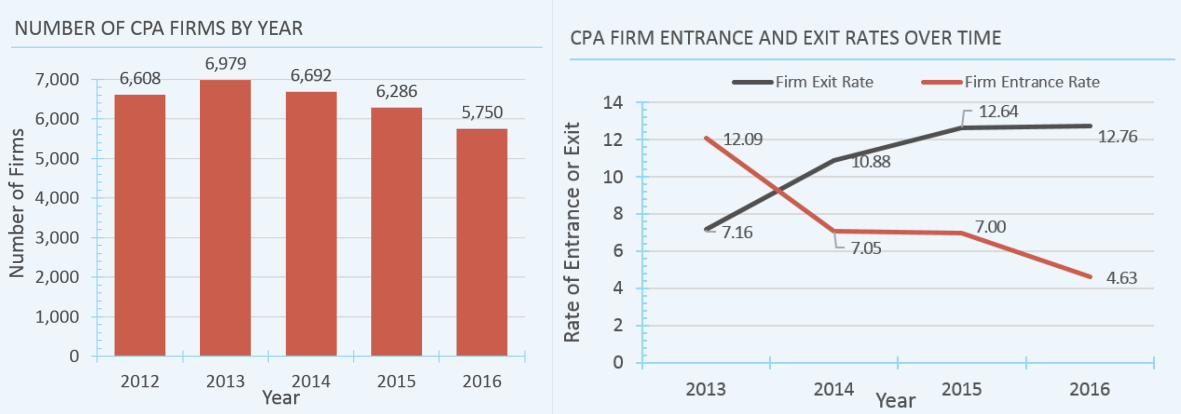
4.1 TRENDS IN THE CPA POPULATION AND CPA BEHAVIOR OVER TIME

This research aims to analyze the size and any changes in the CPA population over time and to identify what characteristics lead CPAs to exit the benefit plan audit practice. To examine CPA-level trends, we transposed plan-level data to a CPA level through a series of data manipulation steps. Appendix C further details this process. To observe CPA behavior as plans submit filings, this research question uses filing year to define time-frames. The filing year for a Form 5500 filing is typically one year after the plan year. This research question considers the population of CPAs that had audited at least one Form 5500 filing between Filing Year 2012 and Filing Year 2016.

4.1.1 How does the population of CPAs change over time?

The CPA population has been shrinking since 2013, as shown in Figure 1. On the left chart, the red bars show the total number of CPAs that performed audits each filing year. On the right, the gray and red lines show CPA exit rates and entrance rates, respectively, for each year.[6,7] In 2013, the industry entrance rate was higher than the exit rate. In 2014, the exit rate was higher, and it has continued to climb while the entrance rate has decreased.

Figure 1



N = 8,348 CPA firms

4.1.2 How do CPAs behave after contact with EBSA?

Each year, EBSA reviews a subset of audits through a work paper review to determine the quality of the CPA's work. A work paper review can receive one of four statuses: (1) acceptable; (2) acceptable, minor; (3) unacceptable, minor; and (4) unacceptable, major.[8]

We grouped CPAs with any major deficiency finding together and hypothesized that CPAs will audit fewer plans after an unfavorable review, defined here as a major deficiency. Further, we hypothesized that an unfavorable review may prompt a CPA to exit the benefit plan audit practice.

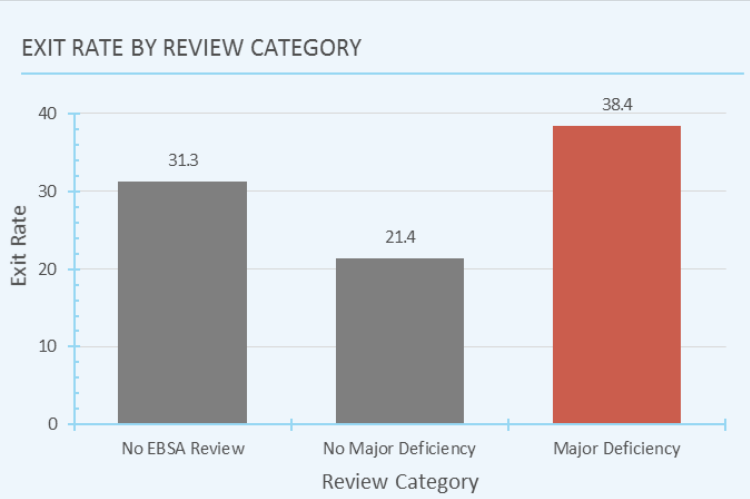
[6] The exit rate is defined as the percentage of CPAs that exited in a year. It is calculated as the number of CPAs that performed audits in the previous filing year and did not perform audits in the current year, divided by the number of CPAs that performed audits in the previous year. This definition may include CPAs that don't appear in the current year due to a merger with another firm, which cannot be directly observed in the filing data.

[7] The entrance rate is defined as the percentage of CPAs that entered in a year. It is calculated as the number of CPAs that audited filings for the current filing year but not the previous year, as a percentage of CPAs that audited filings in the current year.

[8] As defined in the terminology section, an "acceptable" status indicates that no deficiencies were found. An "acceptable, minor" status indicates that minor deficiencies were found, but the audit was still acceptable. An "unacceptable, minor" status indicates that minor deficiencies were found resulting in an unacceptable audit. An "unacceptable, major" status indicates major deficiencies in the audit were found during EBSA's review. This can include reasons such as no evidence of work completed for an entire area of the audit.

Figure 2 shows the four-year exit rate for three groups: (1) CPAs that EBSA did not review, (2) CPAs that EBSA reviewed without finding a major deficiency, and (3) CPAs that EBSA reviewed and identified as having a major deficiency.[9] CPAs for which EBSA found a major deficiency, indicated by the red bar, are more likely to exit the benefit plan audit practice than CPAs not reviewed by EBSA or CPAs for which EBSA found no major deficiencies.

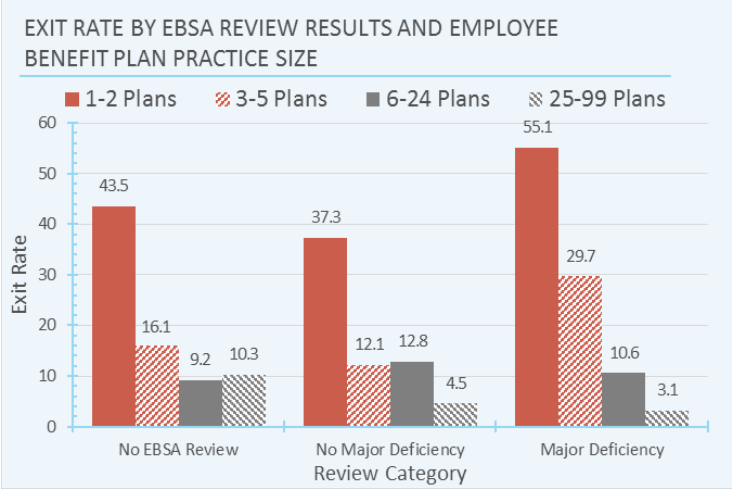
Figure 2



N = 8,348 CPA firms

Figure 3 shows these exit rates by employee benefit plan practice size. This trend persists between the two smallest employee benefit plan practice size categories: firms that audit 1-2 plans per year and firms that audit 3-5 plans per year. For these groups, the exit rate is highest among CPAs that received a major deficiency. Among CPA firms that audit between six and 99 plans per year, the exit rate is lower across all categories and is not consistently higher among those that received a major deficiency.

Figure 3



N = 8,348 CPA firms

[9] Appendix A presents exit rates for CPAs that have been referred to the American Institute of Certified Public Accountants (AICPA) or their State Board after a review compared to those that have not.

To determine whether CPA firms audit more or fewer plans after an unfavorable review, we prepared transition tables by review status. One such transition table, shown in Table 2, compares employee benefit plan practice size in Filing Year 2012 to employee benefit plan practice size in Filing Year 2016 for plans that received a major deficiency. The column on the left shows the starting employee benefit plan practice size in Filing Year 2012. The row on the top shows the final employee benefit plan practice size in Filing Year 2016. Each cell indicates the percentage of the CPA firms with both the original practice size and the final practice size indicated. For example, reading across the top row shows that among the CPA firms that audited 1–2 plans in Filing Year 2012 and received a major deficiency review during the study period, 52% exited the industry, 37% had the same practice size in Filing Year 2016, 10% audited 3–5 plans in Filing Year 2016, and 1% audited 6–24 plans in Filing Year 2016. The diagonal indicates the same employee benefit plan practice size in 2012 and 2016.

Table 2 shows that although CPAs that receive a major deficiency are more likely to exit the industry, CPAs that remain grow their employee benefit audit practice more often than shrink it. This trend holds true regardless of whether EBSA reviews the firm or what EBSA finds during the review. Appendix A presents transition tables for the entire 2012 filing population, plans not reviewed by EBSA, and plans reviewed with no major deficiency.

Table 2: Transition Table for CPA Firms with a Major Deficiency

		Filing Year 2016 Employee Benefit Plan Practice Size							Total/ Percent	
		Firm Exited	1–2 Plans	3–5 Plans	6–24 Plans	25–99 Plans	100–749 Plans	750+ Plans		
Filing Year 2012 Employee Benefit Plan Practice Size	1–2 Plans	51.61%	36.87%	10.14%	1.38%	0.00%	0.00%	0.00%	217	100%
	3–5 Plans	30.48%	14.29%	34.29%	20.95%	0.00%	0.00%	0.00%	105	100%
	6–24 Plans	10.29%	1.47%	11.76%	58.82%	17.65%	0.00%	0.00%	68	100%
	25–99 Plans	2.86%	2.86%	0.00%	5.71%	71.43%	17.14%	0.00%	35	100%
	100–749 Plans	0.00%	0.00%	5.56%	0.00%	5.56%	66.67%	22.22%	18	100%
	750+ Plans	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	9	100%
Total		152	97	67	67	38	18	13	452	

Note: Exit rates calculated in this table as percent of CPA firms in Filing Year 2012, while Figure 3 includes CPAs represented in Filing Year 2012 through Filing Year 2015.

4.1.3 Regression analysis: What characteristics predict CPA exit from the benefit plan industry?

We performed a regression analysis to understand the contribution of EBSA work paper reviews on whether CPAs continue providing audit services to employee benefit plans. This analysis estimates the probability of a CPA exiting from the benefit plan market conditional on whether EBSA reviews a CPA's audit work papers and whether EBSA finds the CPA's work papers to have any major deficiencies. We

used data on CPAs and employee benefit plans from 2011 through 2016, including Form 5500 filings and results from the Audit Quality Study.

Every year, EBSA selects audits to review that reflect priorities for that year. Targeted reviews are associated with more deficiencies and potentially higher exit rates, which may introduce bias in the analysis. Audits selected for review in the Audit Quality Study, however, were randomly selected from the population of all plans in Plan Year 2011.[10] We use this random sample to define our model population. Studying only the CPAs eligible for random review in the Audit Quality Study allows us to build the model without the bias introduced by targeting. We also limited the population to only CPAs that audit fewer than 100 employee benefit plans because none of the CPAs that audit more than 100 employee benefit plans exited the industry during the study period.[11]

We then determined whether the CPA firms exited the industry between the year immediately preceding the Audit Quality Study reviews and the most recent year of complete data. EBSA conducted the Audit Quality Study reviews in 2014, so the filing year immediately preceding the Audit Quality Study is 2013. The most recent year of complete data available is for Filing Year 2016. The outcome variable captures any CPA exits between the filing year immediately before the Audit Quality Study (2013) and the most recent filing year with complete data available (2016).

The outcome variable indicates whether a CPA continues to audit benefit plans after the EBSA review:

- "1" indicates that a CPA was active in Filing Year 2013 but not Filing Year 2016.
- "0" indicates that a CPA was active in both Filing Year 2013 and Filing Year 2016.

The predictor variables in this model are employee benefit plan practice size, review by EBSA, and major deficiency. We chose these variables based on information gained through consultation with EBSA staff regarding the relationship between these explanatory variables and the outcome of interest. The model population includes 613 CPAs, of which 181 were reviewed by EBSA. 131 CPAs received a major deficiency.

First, we analyzed the exit rates of the CPAs in the model population to determine:

- If the probability of a CPA exiting is different between CPAs that were reviewed and CPAs who were not reviewed.
- If exit rates are different between CPAs for which EBSA found a major deficiency as compared to other CPAs.

[10] Excluding Direct Filing Entities and final filings.
[11] We also excluded CPAs that EBSA had reviewed during the research period outside of the Audit Quality Study.

Table 3 and Table 4 show these raw exit rates without adjusting for other CPA characteristics. The exit rate is higher for CPAs reviewed and for CPAs with a major deficiency. Without controlling for CPA characteristics, there is a statistically significant difference in exit rate by review status and major deficiency finding.

Table 3: Exit Rates by Review Status – CPAs that Audit Fewer than 100 Employee Benefit Plans

CPA Firm Reviewed	CPA Firm Not Reviewed	Difference	Statistical Significance
27.07%	12.13%	14.94%	0.000

Note: The statistical significance column shows the *p*-value for the difference between the two exit rates. A value of less than 0.05 is considered significant. The difference here is statistically significant.

Table 4: Exit Rates by EBSA Review Findings – CPAs that Audit Fewer than 100 Employee Benefit Plans

EBSA Found Major Deficiency	EBSA Did Not Find Major Deficiency	Difference	Statistical Significance
32.18%	9.34%	22.84%	0.000

Note: The statistical significance column shows the *p*-value for the difference between the two exit rates. A value of less than 0.05 is considered significant. The difference here is statistically significant.

Next, we estimated a CPA-level logistic model to adjust our estimated exit probabilities by employee benefit plan practice size in Filing Year 2013. This model also tests whether an audit review or deficiency makes a statistically significant contribution to a CPA's probability of exit when controlling for employee benefit plan practice size.

The model indicates that:

- Employee benefit plan practice size is the strongest predictor of CPA exit.
- Selection for EBSA review alone is not associated with CPA exit when controlling for employee benefit plan practice size. This comparison is between CPAs who EBSA did not review and those it reviewed, regardless of EBSA finding, controlling for the effect of a major deficiency finding.
- Receiving a major deficiency from EBSA also predicts CPA exit, when controlling for employee benefit plan practice size. This is compared to CPAs who do not receive a major deficiency finding from EBSA, including those not reviewed.

Figure 4 shows the predicted probability of whether a CPA exits the employee benefit plan audit practice by employee benefit plan practice size. It shows the predicted exit rate controlling for the effect of review selection and major deficiency. As expected, the CPA firms that audit the fewest employee benefit plans are most likely to exit the practice.

Figure 4

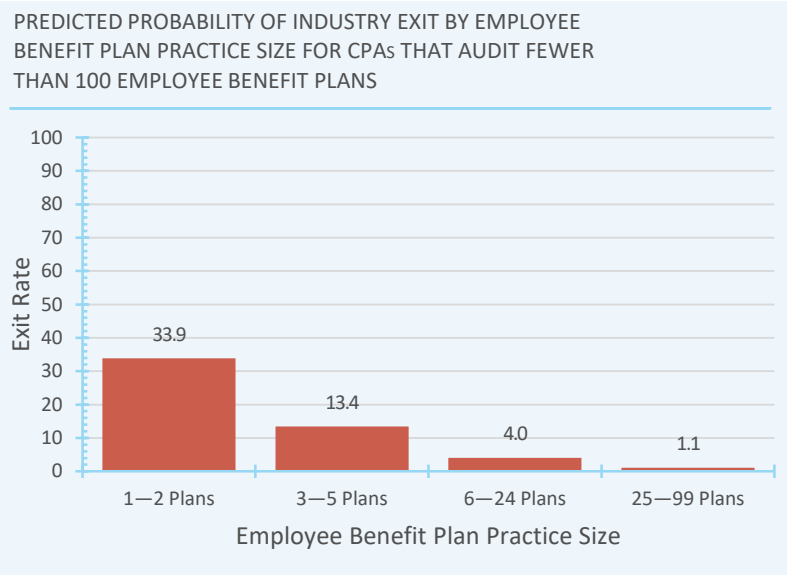
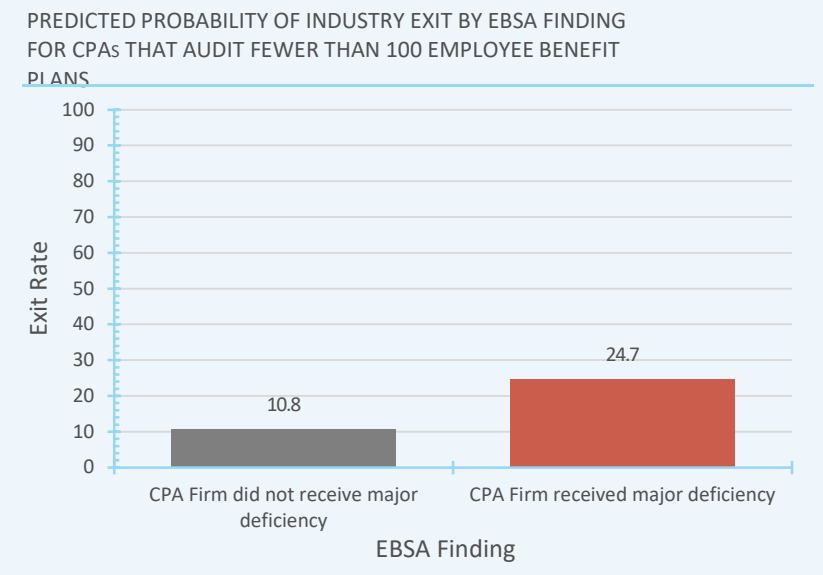


Figure 5 shows the predicted probability of whether a CPA exits the employee benefit plan audit practice by EBSA deficiency findings. It shows the predicted exit rate controlling for employee benefit plan practice size. When controlling for employee benefit plan practice size, CPAs that receive a major deficiency are more likely to exit the benefit plan audit practice.

Figure 5



WHAT CHARACTERISTICS PREDICT CPA EXIT?

Population: CPA firms that audited fewer than 100 employee benefit plans that were eligible for selection in the Audit Quality Study

Dependent variable: Is the CPA firm active in Filing Year 2016?

Predictor variables:

- ***Employee benefit plan practice size***—How many audits does the CPA perform per year?
- ***Review by EBSA***—Did EBSA review the CPA?
- ***Major deficiency***—Did the CPA receive a major deficiency?

Key findings:

- Employee benefit plan practice size is the strongest predictor of CPA exit; CPA firms that audit the fewest employee benefit plans are most likely to exit the industry.
- EBSA review alone does not predict exit.
- EBSA finding a major deficiency predicts CPA exit.

We present full model results for the logistic regression in Appendix A, Table A-4.

4.2 PLAN BEHAVIOR FOLLOWING EBSA REVIEW

This research question aims to examine whether an audit review by EBSA increases the likelihood that a plan will switch CPAs. To examine plan-level behavior following the audit review, we merged data from the results of EBSA's work paper reviews with Form 5500 data. To merge the two data sets, we matched each EBSA review with the plan's following Form 5500 filing filed after the EBSA review closed.[12] Appendix C documents additional details.

[12] We excluded reviews closed prior to 2008 and reviews of plans that have not had any additional filings submitted since the review closed.

4.2.1 Are plans more likely to switch CPAs after EBSA review?

A plan can switch CPAs up to four times during the study period. Table 5 shows the number of times that plans switched CPAs during Plan Year 2011 through Plan Year 2015 for all plans and by review status. Switch rate is defined as the number of plans that switched CPAs divided by the total number of plans that filed Form 5500. As Table 5 shows, the overall switch rate for the period of study, including plans EBSA reviewed, is approximately 25%. In other words, between 2011 and 2015, 25% of all plans that filed in both years switched CPAs.

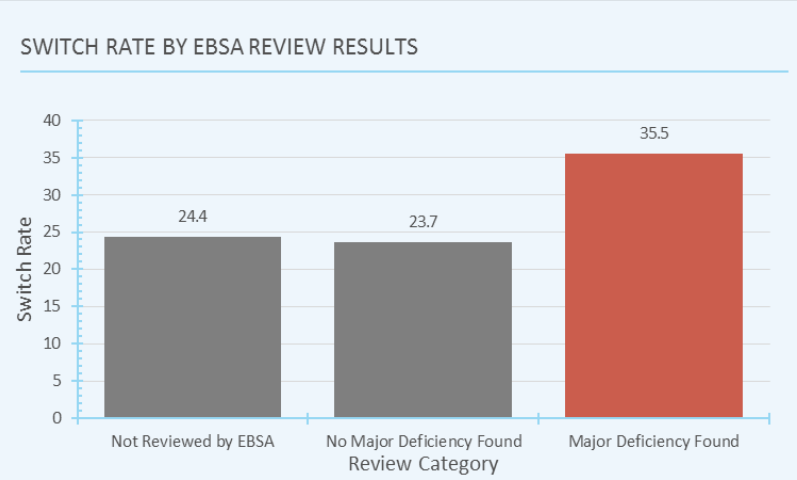
Table 5: Plans by Number of Switches between 2011 and 2015 and Review Status

Number of Switches	All Plans		Not Reviewed by EBSA		EBSA Found No Major Deficiency		EBSA Found a Major Deficiency	
	Plan Count	Percent	Plan Count	Percent	Plan Count	Percent	Plan Count	Percent
4	11	0.01%	9	0.01%	1	0.05%	0	0.00%
3	237	0.26%	213	0.25%	6	0.31%	6	0.49%
2	2,410	2.69%	2,299	2.66%	39	2.02%	51	4.17%
1	19,411	21.70%	18,551	21.50%	412	21.36%	378	30.88%
Total Switches	**22,069**	**24.68%**	**21,072**	**24.42%**	**458**	**23.74%**	**435**	**35.54%**
0	67,365	75.32%	65,202	75.58%	1,471	76.26%	789	64.46%
Total	**89,434**	**100.00%**	**86,274**	**100.00%**	**1,929**	**100.00%**	**1,224**	**100.00%**

Note: Some plans where EBSA found a major deficiency experienced a switch before the review. In these scenarios, pre-review switches are excluded from the plan counts for the "EBSA Found No Major Deficiency" and "EBSA Found a Major Deficiency" columns.

Figure 6 shows the switch rate for three groups: (1) plans that EBSA did not review, (2) plans that were reviewed and did not receive a major deficiency, and (3) plans that were reviewed and did receive a major deficiency. Plans with audits that EBSA reviewed and have no major deficiencies have approximately the same switch rate as plans with audits not reviewed by EBSA: 24%. Both groups are shown in gray. For plans where EBSA found unacceptable major deficiencies, indicated by the red bar, the switch rate is 35.5%.

Figure 6

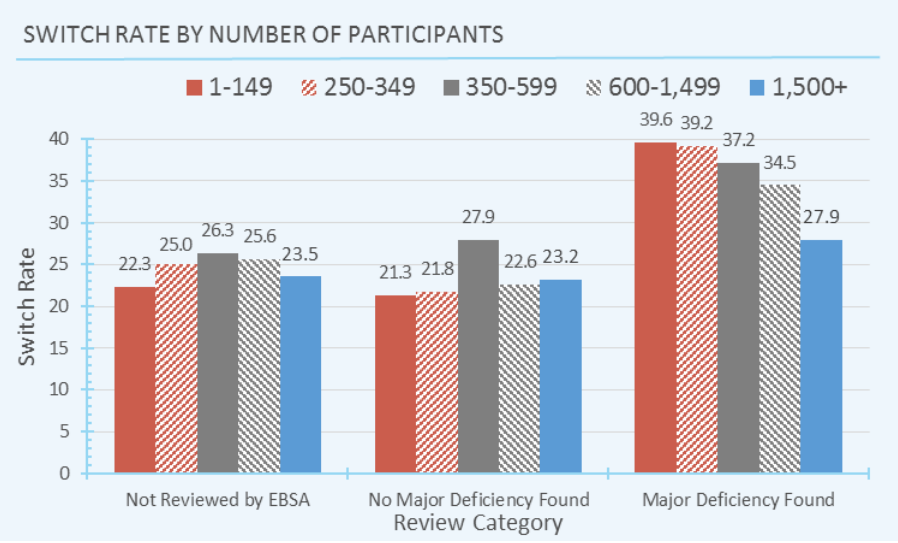


N = 89,434 plans

We further analyzed the review status switch rates by the following plan characteristics: number of participants, type of entity (multi-employer, multiple employer, single employer), and kind of plan (defined benefit, defined contribution, or health and welfare).

Figure 7 shows the switch rate by review status and plan size. The series "Major Deficiency Found" on the right shows that large plans are less likely to switch CPAs following a negative EBSA review than smaller plans.

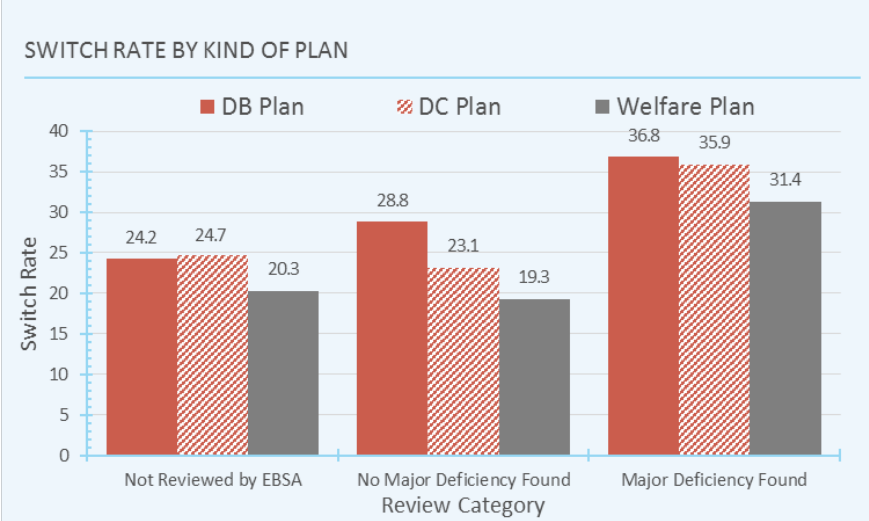
Figure 7



N = 89,434 plans

Figure 8 shows the switch rate by kind of plan and review category. The cluster of columns on the left is the switch rate for plans EBSA has not reviewed. It shows the baseline differences between switch rates when comparing different kinds of plans. Welfare plans have lower switch rates as compared to defined benefit (DB) and defined contribution (DC) plans. This relationship is true regardless of EBSA review finding.

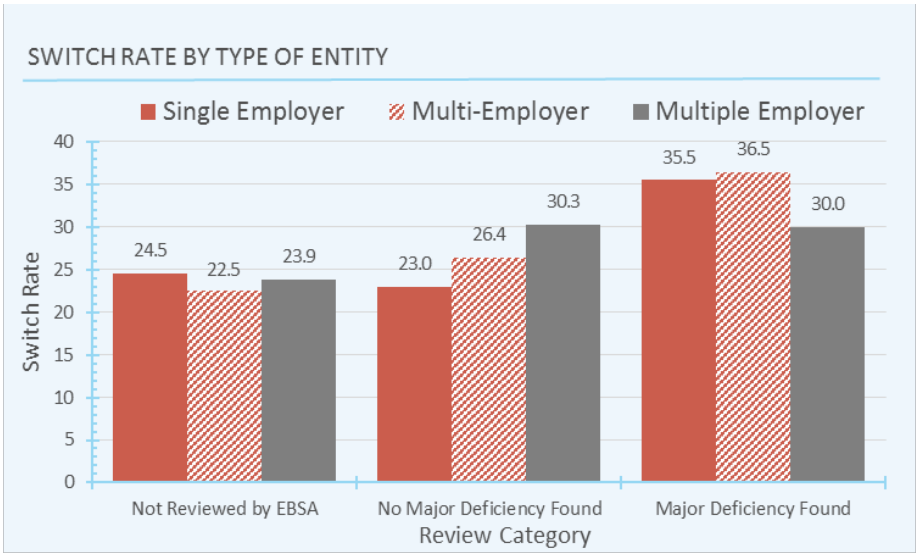
Figure 8



N = 89,416 plans; excludes plans without plan type

Figure 9 shows the switch rate by type of entity and review category. The cluster of columns on the left is the switch rate for plans not reviewed by EBSA. It shows the baseline differences between switch rates when comparing different types of entities, which are similar. However, the column on the right shows that it is less common for a multiple employer plan to switch CPA firms following a negative EBSA review as compared to single employer and multi-employer plans.

Figure 9



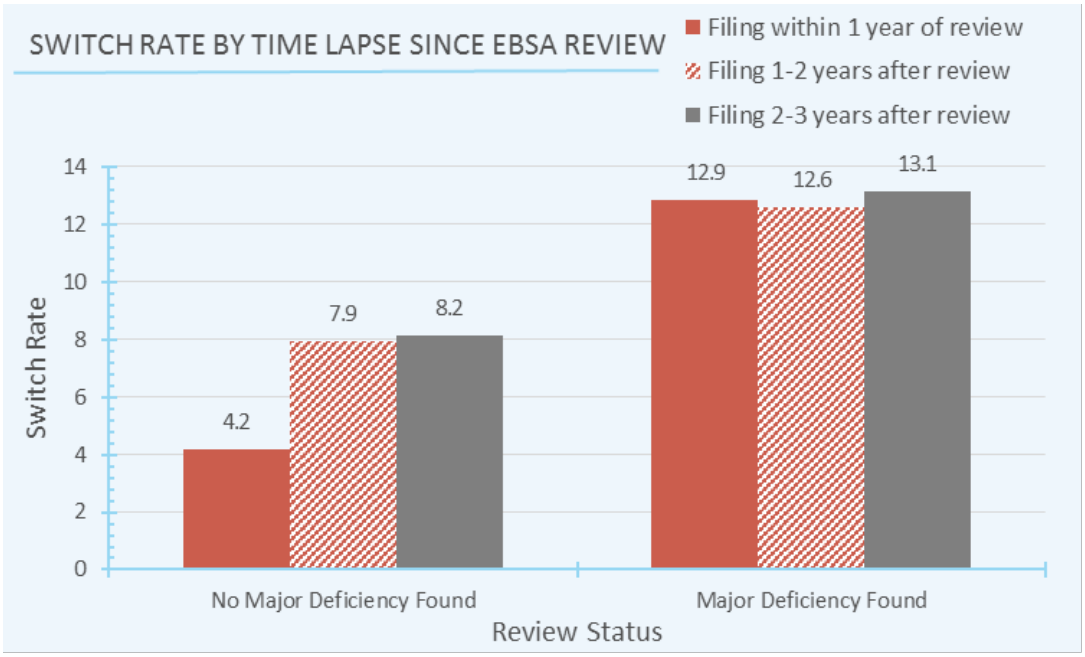
N = 89,433 plans; excludes plans without entity type

4.2.2 How long does it take a plan to switch CPAs after an unfavorable review?

To analyze how long it takes a plan to switch CPAs after an unfavorable review, we limited the population to plans that received an EBSA review in calendar year 2012 or 2013 and filed Form 5500 in each of the three calendar years following review. This population was 851 plans. In this question, the switch rate is defined as the number of plans that used a different CPA from their previous filing divided by the total number of plans.

Figure 10 shows the switch rate by review status and time lapse since EBSA review. The red solid bar shows the one-year switch rate for the next filing submitted after review, the red striped bar shows the one-year switch rate for the filing submitted after that, and the gray bar shows the one-year switch rate for the third filing submitted after the review. Plans for which EBSA found no major deficiencies have a depressed switch rate for filings in the first year after the review. Among plans that received a major deficiency, the switch rate is higher than the annual average within the first year. This relationship suggests that if a plan switches CPAs due to a negative review, we can observe that effect in the next filing submitted after the review is closed. Beyond this first year effect, there is no clear switch timing pattern. This issue could be studied further in future analyses.

Figure 10



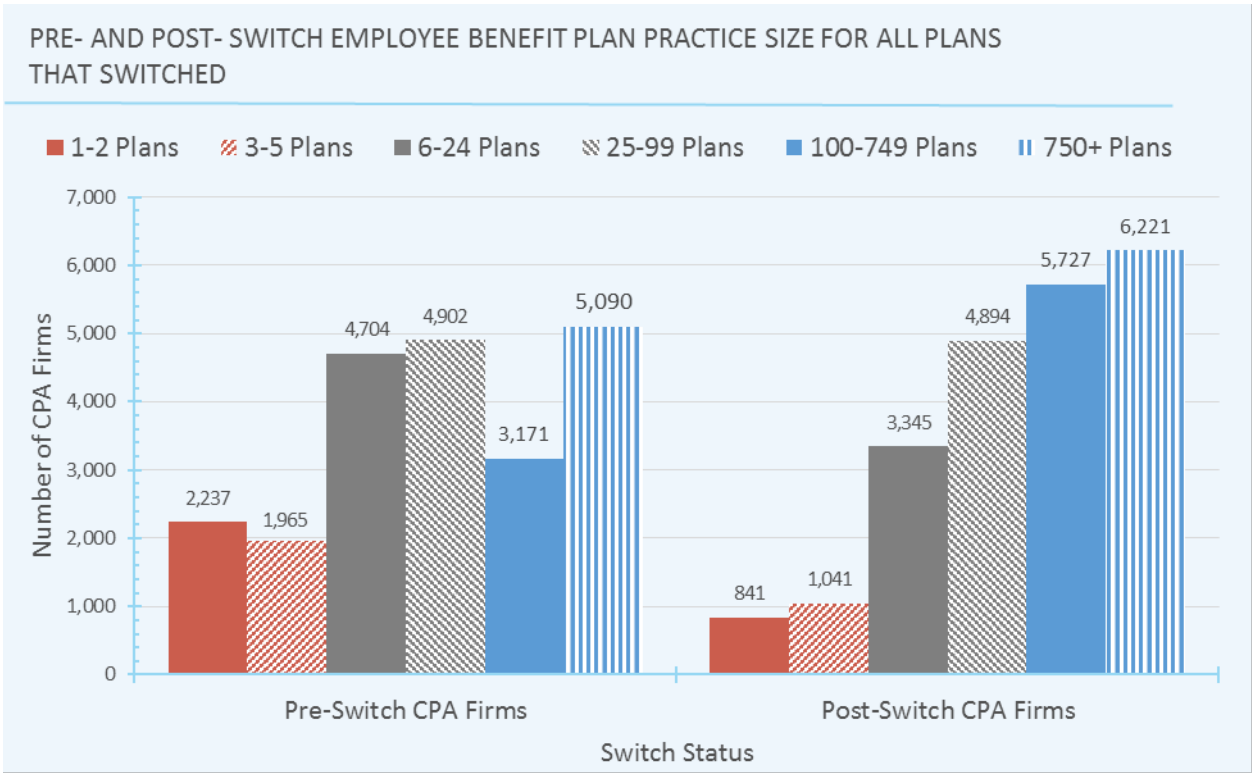
N = 851 plans that received an EBSA review in calendar year 2012 or 2013 and filed Form 5500 in each of the three calendar years following review

4.2.3 Among plans that switch CPAs, how does the pre-switch CPA compare to the post-switch CPA?

We compared several characteristics of the pre-switch CPA to the post-switch CPA, including professional membership, participation in peer review, and employee benefit plan practice size. The pre-switch CPA is defined as the plan's first CPA in the study period, and the post-switch CPA is defined as the plan's last CPA in the study period.

Figure 11 shows the practice size of the pre-switch CPA and the post-switch CPA, for all plans that switched CPAs in this period. Plans that switch CPAs are switching away from CPA firms that audit fewer employee benefit plans toward those that audit more employee benefit plan practices. Among the 22,069 plans that switched CPAs during the study period, the median number of audits completed per year was 42 plans per year for pre-switch CPAs and 144 plans per year for post-switch CPAs.

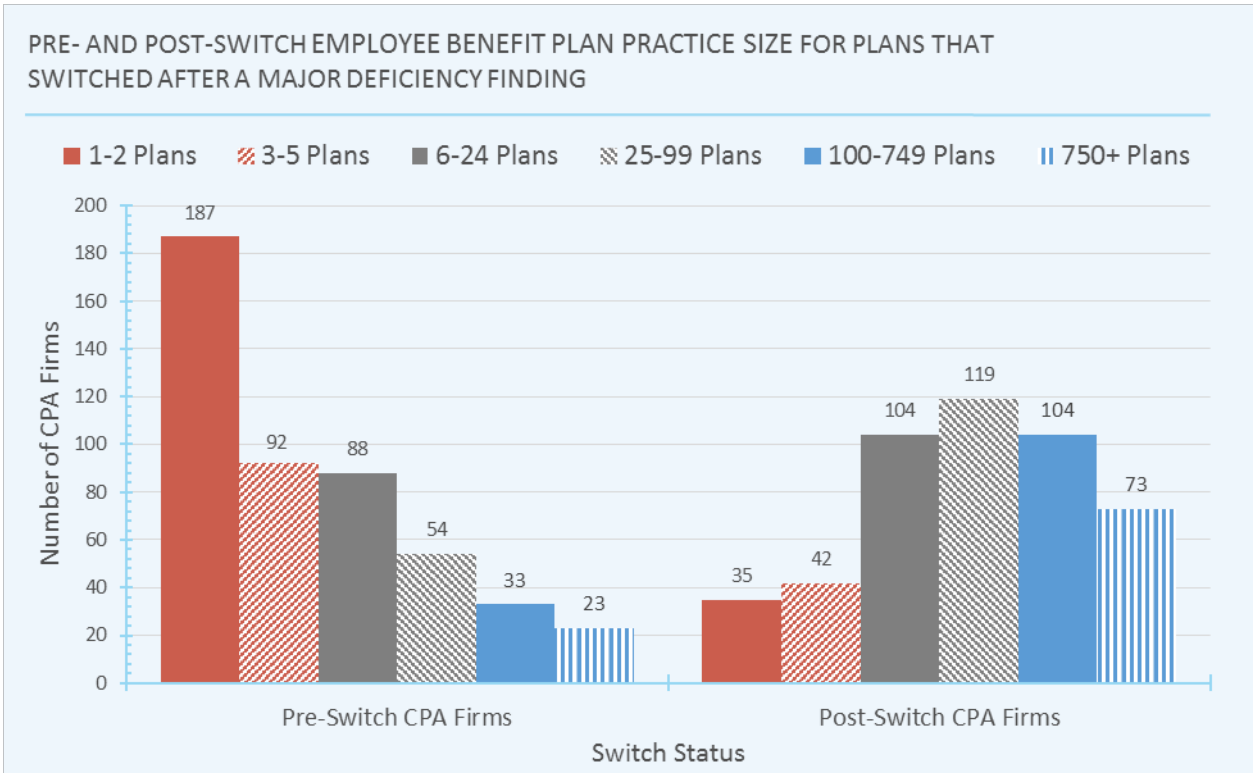
Figure 11



N = 22,069 plans; excludes plans that did not switch CPAs

Figure 12 compares employee benefit plan practice size of pre-switch and post-switch CPAs for plans that switched CPAs after EBSA found unacceptable major deficiencies. The pattern of plans switching from CPAs that audit fewer employee benefit plans toward CPAs that audit more employee benefit plans is more pronounced for this group. Before the negative EBSA review, 187 of these plans used CPAs that audit 1–2 plans per year; after the negative EBSA review, only 35 plans used CPAs that audit 1–2 plans per year. There were no notable patterns by professional membership or participation in peer review. Appendix A presents the results for these characteristics.

Figure 12



N = 477 plans that received an unacceptable, major deficiency and switched CPAs

4.2.4 Regression analysis: Does EBSA review predict a plan's decision to switch CPAs?

We performed a regression analysis to understand the contribution of EBSA work paper reviews on a plan's decision to switch CPAs. This analysis estimates the probability of the plan administrator switching CPAs depending on whether EBSA reviews a CPA's work papers and whether EBSA finds the CPA's work papers to have any major deficiencies.

Every year, EBSA changes its selection of audits to review based upon its targeting and priorities for that year. Audits selected for review in the Audit Quality Study, however, were randomly selected from the population of all plans in Plan Year 2011. We use this random sample to define our model population.

While the population of randomly reviewed plans is small, using this data allows us to evaluate the relationship between EBSA reviews and switching behavior without introducing the statistical bias that may be associated with targeted plan selection (i.e., targeted reviews are associated with poor audit

quality, which we expect to correspond to higher switching rates). Additionally, we limited the population to only plans audited by CPAs that audit fewer than 100 employee benefit plans because they are more likely to switch CPAs.[13]

In the 2014 Audit Quality Study, EBSA completed reviews on audits for Plan Year 2011 filings. The most recent year of data available is for Plan Year 2015, which were mostly submitted in 2016. The outcome variable below captures any CPA switches in the four years of filings following an EBSA audit included in the Audit Quality Study.

The outcome variable for this analysis indicates whether a plan switched CPAs after the EBSA review:

- "1" indicates that a plan is using a different CPA in Plan Year 2015 than in Plan Year 2011.
- "0" indicates that a plan is using the same CPA in Plan Year 2015 and Plan Year 2011.

There were 40,873 observations used to build this model, with 281 plans reviewed and 177 major deficiencies. First, we analyzed the switch rates of audited plans after EBSA review. We tested these switch rates to determine:

- If switch rates are different between plans reviewed and plans not reviewed.
- If switch rates are different between plans for which EBSA found a major deficiency in the audit as compared to those that did not.

In the following tables and figures, we first describe univariate statistics for switch rates, followed by model results that control for other factors. Table 6 shows these switch rates by review status.

Table 7 shows these switch rates by major deficiency status. Without controlling for plan or CPA characteristics, there is no statistically significant difference in switch rate by either review status or major deficiency finding. Following this, Figure 14 and Figure 15 show the predicted probability of a plan switching CPAs by EBSA review and EBSA finding, controlling for plan characteristics and employee benefit plan practice size. When controlling for these factors, plans that receive a major deficiency finding are more likely to switch CPAs. This is an important finding of this study.

Table 6: Switch Rates by Review Status without Controlling for Other Factors – Plans with CPAs that Audit Fewer than 100 Employee Benefit Plans

Plan Reviewed	Plan Not Reviewed	Difference	Statistical Significance
36.04%	39.56%	3.52%	0.228

Note: The statistical significance column shows the *p*-value for the difference between the two switch rates. A value of less than 0.05 is considered significant. The difference here is not statistically significant.

Table 7: Switch Rates by EBSA Review Findings without Controlling for Other Factors – Plans with CPAs that Audit Fewer than 100 Employee Benefit Plans

EBSA Found Major Deficiency	EBSA Did Not Find Major Deficiency	Difference	Statistical Significance
42.46%	39.52%	2.94%	0.423

[13] We also excluded any plan audits reviewed by EBSA in the study period since the Audit Quality Study but not as part of the Audit Quality Study random sample.

Note: The statistical significance column shows the *p*-value for the difference between the two switch rates. A value of less than 0.05 is considered significant; the difference here is not statistically significant.

Next, we estimated a plan-level logistic model to consider the following plan characteristics to determine their relationship with switching behavior between Plan Year 2011 and Plan Year 2015:

- Employee benefit plan practice size in Plan Year 2011 (initial employee benefit plan practice size);
- Number of plan participants in Plan Year 2011;
- Plan assets in Plan Year 2011;
- Welfare plan indicator;
- EBSA reviewed plan; and
- EBSA gave the plan a "major deficiency" result.

The model indicates that all of these factors are statistically significant predictors of a plan switching CPAs at the 0.05 level.

Figure 13 shows the predicted probability of whether a plan will switch CPAs by initial employee benefit plan practice size. It shows the predicted switch rate controlling for all other factors. As expected, the likelihood of switching CPAs increases as initial employee benefit plan practice size decreases.

Figure 13

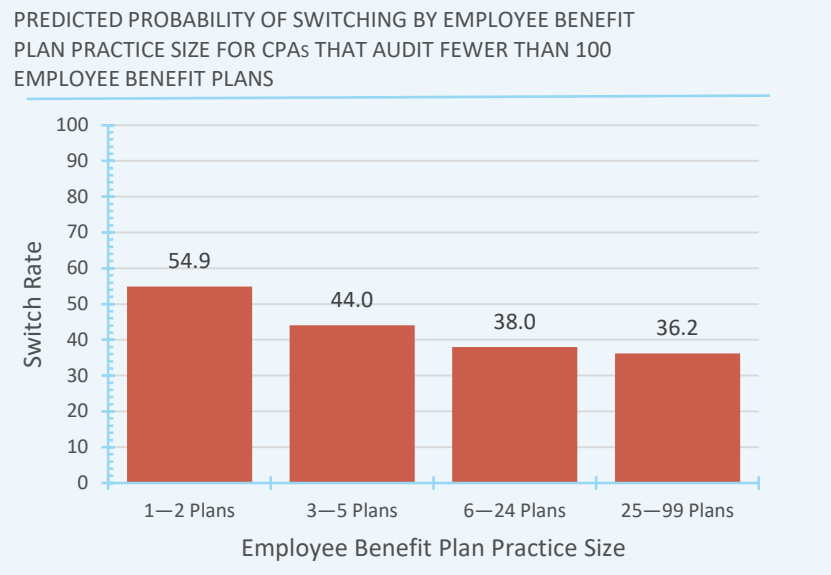


Figure 14 and Figure 15 show the predicted probability of a plan switching CPAs by EBSA review and EBSA finding, controlling for plan characteristics and employee benefit plan practice size. Selection for EBSA review alone does not increase a plan's likelihood of switching CPAs, when controlling for the effect of a major deficiency finding. However, plans that receive a major deficiency finding are more likely to switch CPAs. We present full model results for the logistic regression in Appendix A, Table A-5.

Figure 14

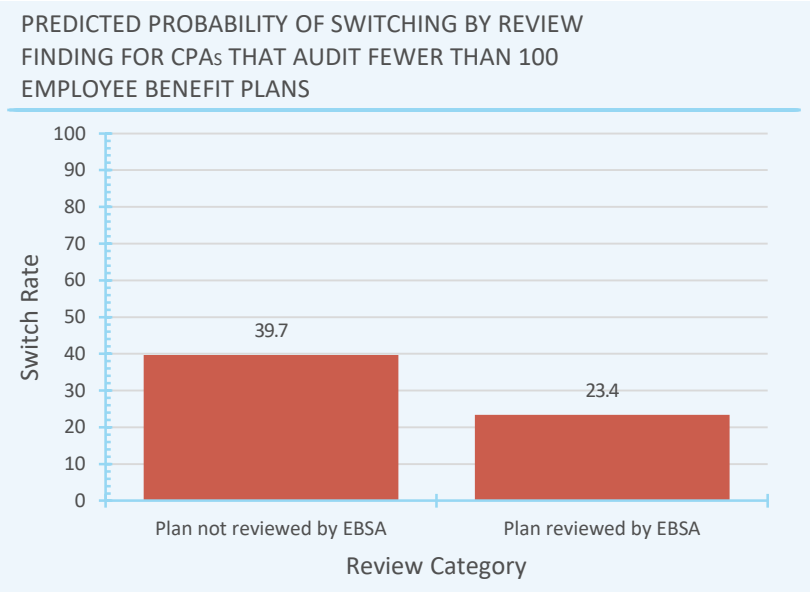
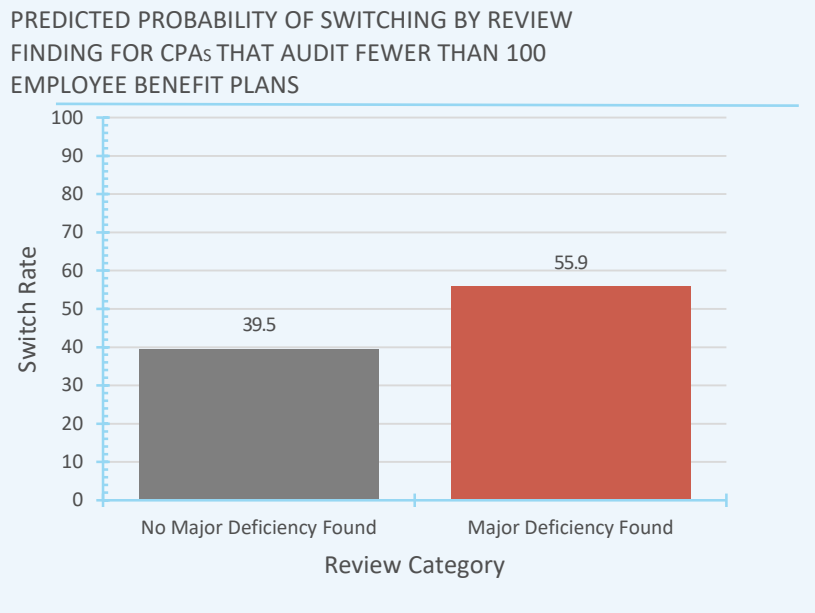


Figure 15



DOES EBSA REVIEW PREDICT A PLAN'S DECISION TO SWITCH CPA FIRMS?

Population: Plans that employ CPAs that audit fewer than 100 employee benefit plans and were eligible for selection in the Audit Quality Study (filed for Plan Year 2011)

Dependent variable: Does the plan have the same CPA in Plan Year 2011 and Plan Year 2015?

Predictor variables:

- ***Employee benefit plan practice size in 2011***—How many audits does the CPA perform per year?
- ***Plan size in 2011***—How many participants and assets does the plan have?
- ***Plan type***—Is the plan a pension or health plan?
- ***Review by EBSA***—Did EBSA review the CPA?
- ***Major deficiency***—Did the CPA receive a major deficiency?

Key findings:

- Employee benefit plan practice size is the strongest predictor of switch; plans using CPAs that audit fewer employee benefit plans are more likely to switch.
- EBSA review alone predicts a lower likelihood of switching.
- EBSA finding a major deficiency predicts switch decision.
- Number of participants, plan assets, and kind of plan also predict switch decision.

4.3 CHANGES IN PLAN SELECTION OF A CPA OVER TIME

This research question aims to examine switching behavior over time and identify characteristics associated with a plan's decision to switch, independent of EBSA review. This analysis looks at the entire plan filing population year-over-year to examine plan and CPA characteristics associated with the decision to switch and the type of CPA selected, independent of EBSA review. We used Form 5500 filings for Plan Year 2011 through Plan Year 2015 for our analysis, and we report our results by plan year for the entire population, including both plans that EBSA reviewed and those it did not. We limited regression results to plans that employed CPAs that audit fewer than 100 employee benefit plans and for Plan Year 2011 through Plan Year 2015. Appendix C documents additional details of the dataset.

4.3.1 What plan-level characteristics are associated with a higher switch rate?

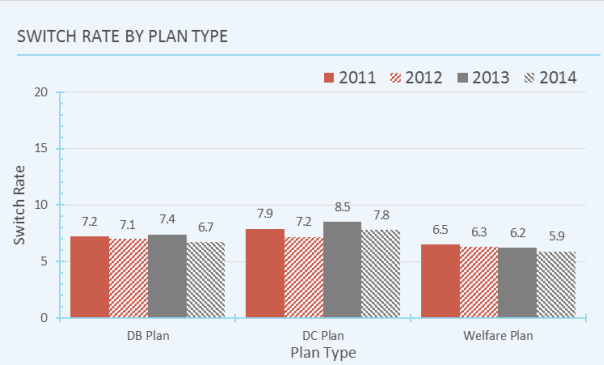
Overall, 7.65% of plans switch CPAs each year. Table 8 shows year-over-year switch rates. Because not every plan files every year, the counts change every year. The switch rate is generally below 8% with a slightly higher switch rate in 2013.

Table 8: Switch Rates by Year

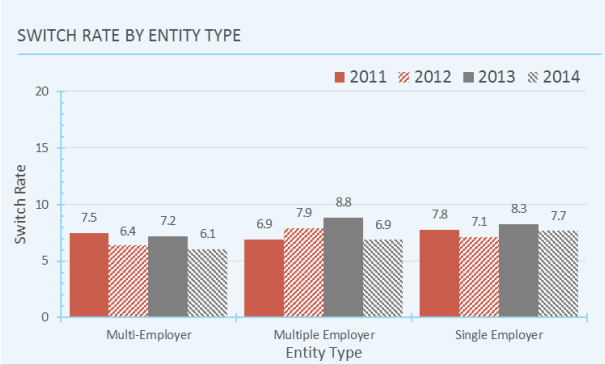
Year	Number of Switches	Plan Count	Switch Rate
2011	5,982	77,514	7.72%
2012	5,761	80,999	7.11%
2013	6,673	81,009	8.24%
2014	6,141	81,312	7.55%
Overall			**7.65%**

Figure 16 shows the annual switch rate by plan type on the left and by entity type on the right. We see that the switch rate for defined contribution (DC) plans are slightly higher than the switch rates for defined benefit (DB) plans and welfare plans across all years.[14] Switch rates by entity type vary more year-over-year than plan type and do not show a consistent pattern.

Figure 16



N = 9,170 DB Plans, 62,707 DC Plans, 5,047 Welfare Plans; excludes observations missing plan type

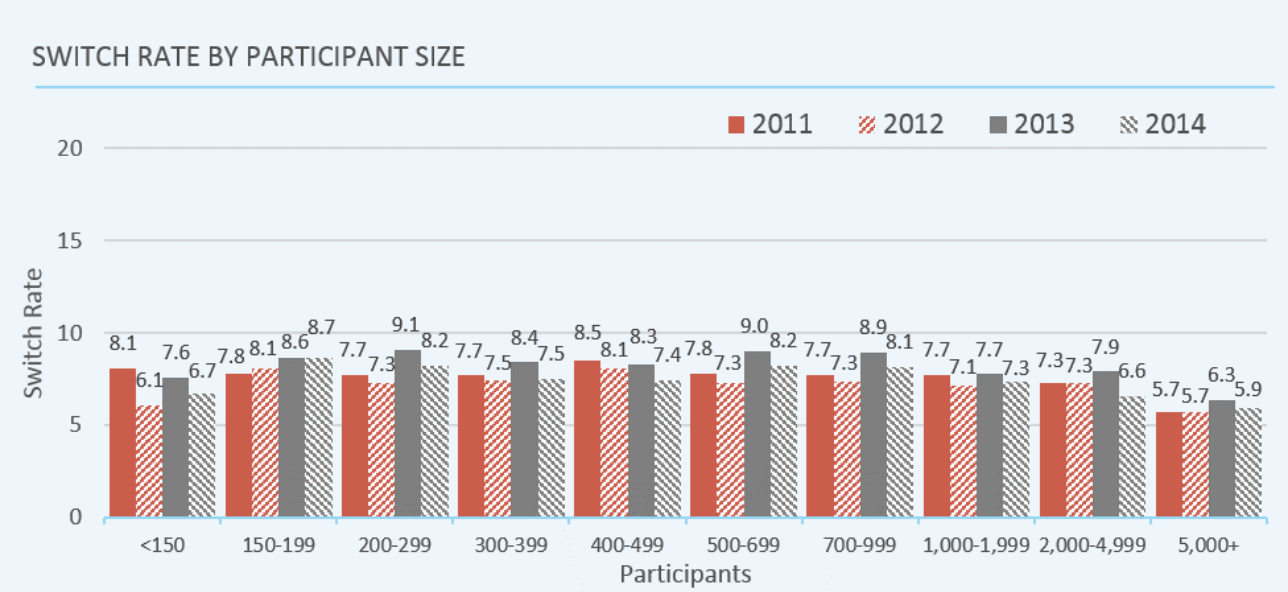


N = 4,638 Multi-Employer Plans, 2,476 Multiple Employer Plans, 69,836 Single Employer Plans; excludes observations missing entity type

[14] Defined benefit and defined contribution plans are both pension plans covered by ERISA. A defined benefit plan promises a specified monthly benefit at retirement. The plan may state this promised benefit as an exact dollar amount, such as $100 per month at retirement. Or, more commonly, it may calculate a benefit through a plan formula that considers such factors as salary and service for example, 1% of average salary for the last five years of employment for every year of service with an employer. Federal insurance provided through the Pension Benefit Guaranty Corporation (PBGC) protects, within certain limitations, the benefits in most traditional defined benefit plans.
A defined contribution plan does not promise a specific amount of benefits at retirement. In these plans, the employee or the employer (or both) contribute to the employee's individual account under the plan, sometimes at a set rate, such as 5% of earnings annually. These contributions generally are invested on the employee's behalf. The employee will ultimately receive the balance in her or his account, which is based on contributions plus or minus investment gains or losses. The value of the account will fluctuate due to the changes in the value of the investments. Examples of defined contribution plans include 401(k) plans, 403(b) plans, employee stock ownership plans, and profit-sharing plans.
https://www.dol.gov/general/topic/retirement/typesofplans.

Figure 17 shows the annual switch rate by plan participant size. Switch rates are consistent across participant bins except at the extremes (<150 and 500+ participants). We see that the smallest and the largest participant bins have lower switch rates, with the exception of 2011 among small plans (<150 participants).

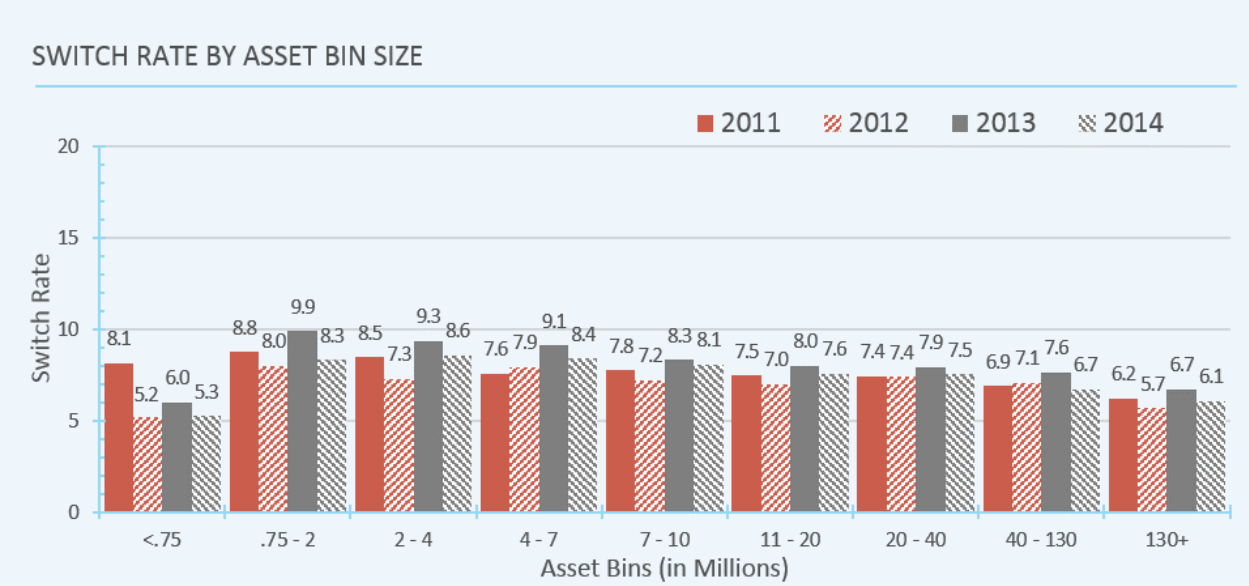
Figure 17



N = 89,374 plans; excludes observations missing participant data

Figure 18 shows the annual switch rate by plan asset bin size. As with plan participant bin size, we see consistency across bins, except at the extremes. The smallest and the largest asset bin sizes have lower switch rates than the other asset bins, aside from the exceptions noted above.

Figure 18

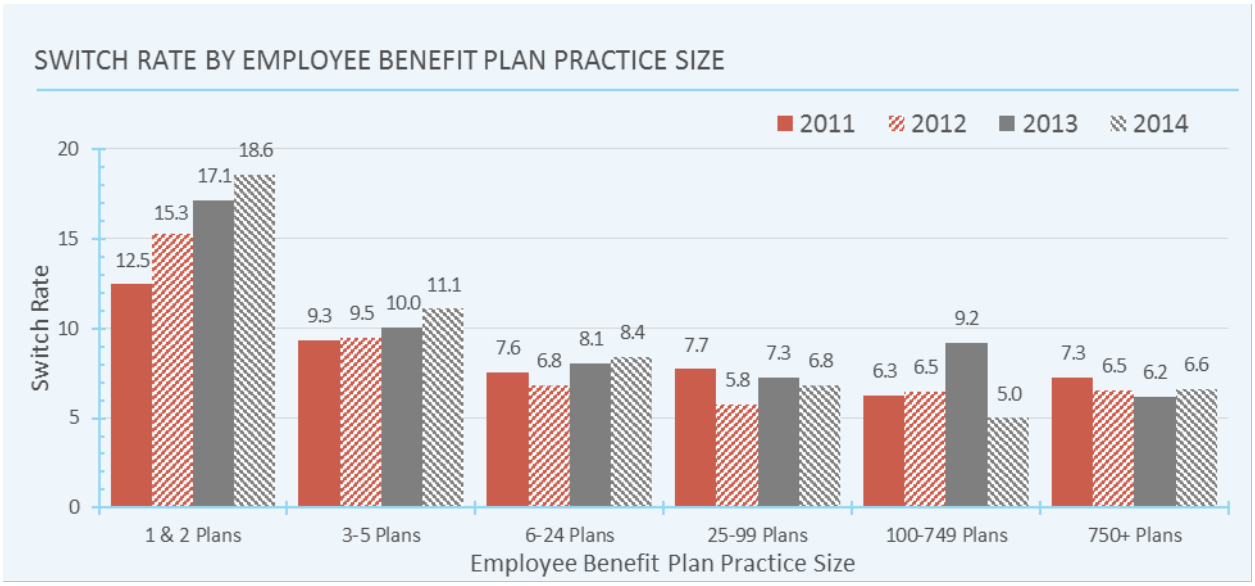


N = 89,434 plans

4.3.2 Is there a relationship between employee benefit plan practice size and switch rate?

Figure 19 shows the annual switch rate for plans by employee benefit plan practice size. Switch rates are highest among plans that use CPAs that audit fewer than six plans per year and level off as number of plans audited increases. Plans have switched away from CPAs that audit 1-2 plans at an increasing rate since 2011.

Figure 19



N = 89,434 plans

4.3.3 What reasons do plans provide for terminating a CPA on the Form 5500?

Large pension and welfare plans must file Schedule C to report information on service providers that rendered services to the plan in the reporting year. In addition to a range of other services reported on this schedule, the filer reports information about a plan's CPA here. Specifically, Part III of the schedule collects information on termination of accountants. This includes information on accountants that performed the plan's audit, as well as other functions. While information applicable to accountants that performed the audits cannot be parsed out from accountants that performed other functions, the reasons provided on the schedule provide general insight into the reasons for terminating a CPA that performs this function.

This analysis uses plan filings with data in the Schedule C, Part III section titled "Termination Information on Accountants and Enrolled Actuaries." In this section, the plan must report the name and contact information for an accountant or enrolled actuary that the plan terminated during the reporting period. Additionally, Form 5500 instructions ask the plan to provide an explanation for termination. This field identifies common reasons for terminating a CPA.

Schedule H of Form 5500 identifies the CPA firms that audited each filing. The majority of Schedule H filings are associated with a Schedule C filing, but only 6% of Schedule H filings are associated with a Schedule C, Part III. The final analysis population represents each unique Schedule C, Part III, which consists of 25,326 observations.

We performed a text analysis on these observations to determine the common reasons why plans might switch CPAs. Table 9 provides a frequency table of the top nine themes that we determined through text analysis. Within each theme, specific sub-themes make up the category. For example, if a Schedule C, Part III filing included the phrase "cost concern," then it falls under the "Bidding Process" theme. The nine themes are not mutually exclusive, although approximately half the submissions include only one of these themes.

Table 9: Top Themes for a CPA Termination

Theme	Instances	Sub-Themes
Same CPA, Name or EIN Change[15]	5,368	Merger, reassignment within auditing firm, name change, EIN change
Bidding Process	4,237	Cost concerns, bid
Staff Changes	993	Former accountant retired, CPA resigned, staff turnover at previous accountant, death of previous CPA
Business Relationship	972	Consolidating services to one firm, relationship
Satisfaction with Service	877	Greater experience or expertise, timeliness, dissatisfied, customer service, communication
Standard Business Practice	601	N/A
Proximity to CPA	502	N/A
Independence Concerns	451	Independence, conflict of interest
Size of Auditor	262	N/A
Results of DOL Audit	25	Previous CPA's submissions rejected by DOL

[15] The data cleaning process for Form 5500 accounted for reported mergers available at the time of the study. Therefore, we did not count these mergers as separate firms in the switch counts and switch rates of this memo. However, unreported mergers cannot be accounted for.

The results of the text analysis represent 12,057 (48%) of the Schedule C, Part III filings. The remaining filings have responses containing vague statements like "business decision" or "changed auditor." In addition, Table A-6 in Appendix A provides a list of the top 50 words found in Schedule C, Part III.

4.3.4 Regression analysis: What plan and CPA characteristics predict a plan's decision to switch CPAs?

We performed a regression analysis to understand which plan characteristics are associated with switching CPAs. Because the descriptive analysis shows that plans with CPAs that audit fewer than 100 employee benefit plans have a much higher probability of switching CPAs, we focus on switching behavior among these plans.

First, we used a logistic regression to model switching behavior. The dependent variable indicates whether a plan switched CPAs:

- "1" indicates that a plan is using a different CPA than the previous year.
- "0" indicates that a plan is not using a different CPA than the previous year.

We built this plan-level model to consider the following plan and CPA characteristics to determine their relationship with switching behavior:

- Kind of plan (e.g., health and welfare, defined benefit, and defined contribution)
- Plan size by participants
- Plan size by assets
- Plan year
- Pre-switch employee benefit plan practice size

There were 398,170 filings used to build this model. The model indicates that all of these factors are statistically significant predictors of whether a plan switches CPAs.[16]

[16] The exception is that there is no statistically significant difference in the switch likelihood between defined contribution and defined benefit plans, controlling for other factors in the model.

Figure 20 shows the predicted probability of whether a plan switches CPAs for plans with CPAs that audit fewer than 100 employee benefit plans by employee plan practice size. As expected, plans with CPAs that audit 1-2 employee benefit plans are most likely to switch CPAs, when controlling for the other characteristics in the model. The predicted switch rate decreases as employee benefit plan practice size increases.

Figure 20

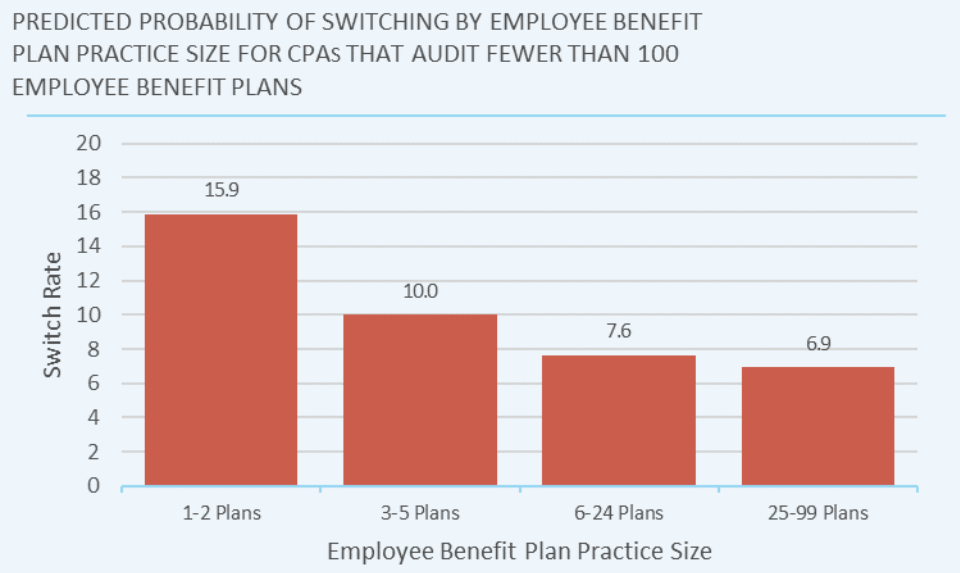


Figure 21 shows an increase in the rate of plans switching CPAs as the participant size of plans increases, controlling for other factors. We see the smallest participant bin is the least likely to switch CPAs.

Figure 21

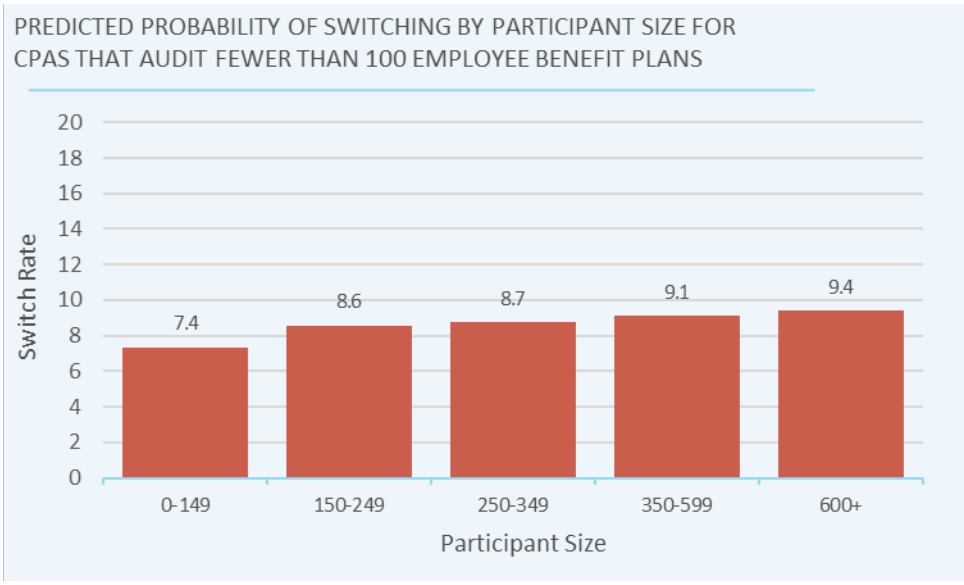
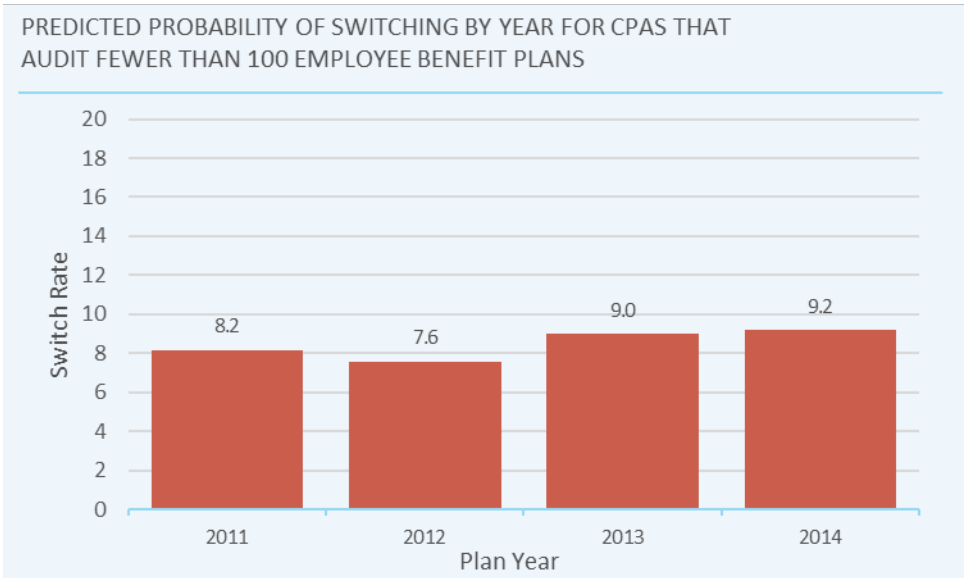


Figure 22 shows that switches between 2012 and 2013 are the least likely and switches are most likely to happen between 2014 and 2015, as shown in the last bar of the chart.

Figure 22



WHAT CHARACTERISTICS PREDICT A PLAN'S DECISION TO SWITCH CPA FIRMS?

Population: Plans that employ CPAs that audit fewer than 100 employee benefit plans

Dependent variable: Does the plan switch CPAs between one Form 5500 filing and the next filing?

Predictor Variables:

- ***Employee benefit plan practice size***—How many audits does the CPA firm perform per year?
- ***Plan size***—How many participants and assets does the plan have?
- ***Plan type***—Is the plan a pension or health plan?
- ***Year***—Plan year of the filing

Key findings:

- Employee benefit plan practice size is the strongest predictor of switch; plans using CPAs with smaller employee benefit plan practices are more likely to switch.
- Number of participants, plan assets, kind of plan, and plan year also predict switch decision.
- Plan Year 2012 to Plan Year 2013 had the lowest switch rate, controlling for other factors.

We present full model results for the logistic regression in Appendix A, Table A-7.

5 CONCLUSIONS

EBSA monitors whether CPAs perform annual audits for employee benefit plans in accordance with industry standards through several methods – audit work paper reviews of a subset of the overall population of benefit plan audits, site visits for audit firms that perform more than 100 benefit plan audits each year, and liaison and outreach activities with professional groups that service employee benefit plans. This study sought to understand plan and CPA behavior through examination of administrative filing data in Plan Years 2011 through 2015. This research found:

- **Employee benefit plan practice size is associated with CPA exit.**
- **Switch rates are highest for plans that choose CPAs that audit fewer than six plans per year.**
- **Plans with an audit that received a major deficiency are more likely to switch CPAs, when controlling for other factors.**

This evidence suggests that the population of CPAs is changing and that the more benefit plans an auditor performs, the more likely that auditor is to stay in the market.

In addition, several analytical extensions for these research questions are worth mentioning. First, more evidence could be built to test the impact of EBSA's audit reviews on plans' decisions to switch to a new CPA by using alternative statistical methods. The analysis could also extend the time period to increase the number of filings and the amount of data available to observe changes in behavior. Increasing the period of study to include older EBSA reviews would increase the amount of data available to observe changes in CPA behavior. This increase in data would allow researchers to conduct a more robust analysis of time trends within the CPA population and to track changes in employee benefit plan practice sizes over time.

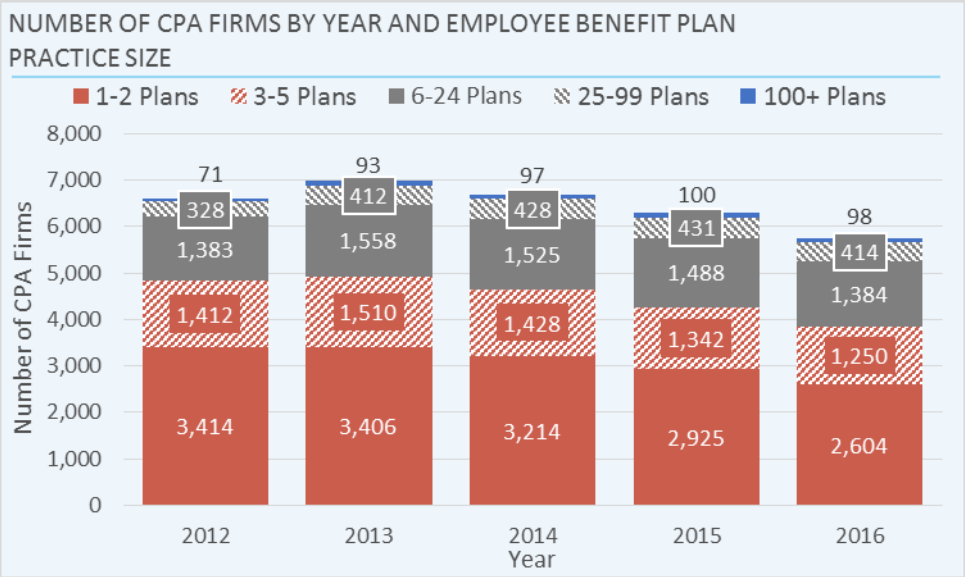
Furthermore, to gather more information on the factors that influence a plan's decision to select or switch CPAs, a survey could be beneficial to collect additional information not available through administrative data from plans and CPAs, such as the criteria a plan uses to select a CPA or the reasons that prompt a plan to switch. Currently, this type of information on switching reasons is only available for the small population of plans who provide an explanation for why they have decided to terminate their accountants on Part III of Schedule C. A survey administered to plan administrators would provide more in-depth information for a broader population beyond those that supply a reason for termination on Schedule C.

Appendix A Additional Analyses

TRENDS IN THE CPA POPULATION AND CPA BEHAVIOR OVER TIME

Figure A-1 shows the population of CPA firms over time broken out by employee benefit plan practice size.

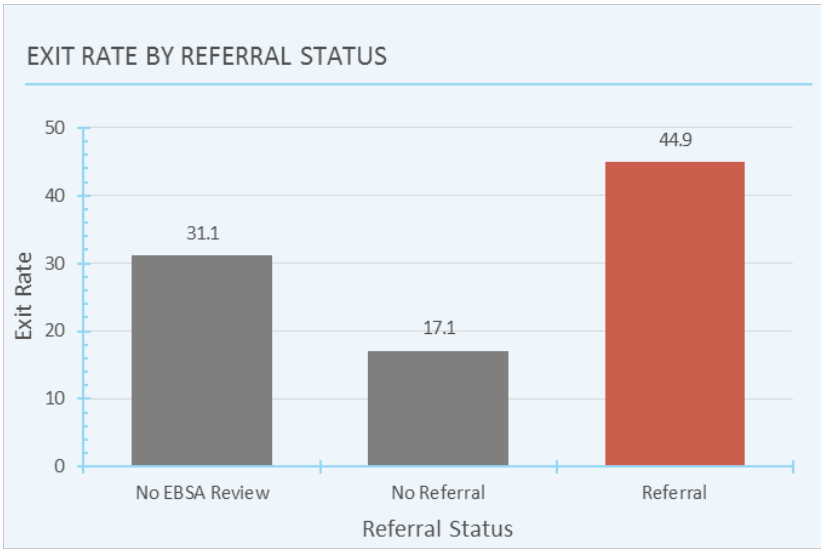
Figure A-1



N = 8,348 CPA firms

Figure A-2 presents the CPA exit rate by referral status. CPAs are referred to American Institute of Certified Public Accountants (AICPA) or the state board because they have the most severe deficiencies in their audits.

Figure A-2



N = 8,348 CPA firms

Table A-1 through Table A-3 present transition tables not included in the body of this report.

Table A-1: Transition Table for All CPAs with 2012 Filings

Filing Year 2012 Employee Benefit Plan Practice Size	Filing Year 2016 Employee Benefit Plan Practice Size								
	Firm Exited	1–2 Plans	3–5 Plans	6–24 Plans	25–99 Plans	100–749 Plans	750+ Plans	Total/Percent	
1–2 Plans	45.84%	41.36%	10.84%	1.96%	0.00%	0.00%	0.00%	3,414	100.00%
3–5 Plans	17.35%	17.63%	41.78%	22.95%	0.28%	0.00%	0.00%	1,412	100.00%
6–24 Plans	9.76%	3.69%	9.04%	65.65%	11.86%	0.00%	0.00%	1,383	100.00%
25–99 Plans	8.54%	3.35%	1.22%	5.49%	71.65%	9.76%	0.00%	328	100.00%
100–749 Plans	0.00%	1.72%	1.72%	3.45%	5.17%	81.03%	6.90%	58	100.00%
750+ Plans	0.00%	0.00%	0.00%	0.00%	0.00%	15.38%	84.62%	13	100.00%
Total	1,973	1,724	1,090	1,319	406	81	15	6,608	

Note: Exit rates calculated as percent of CPA firms in Filing Year 2012, while Figure 3 includes CPAs represented in Filing Year 2012 through Filing Year 2015.

Table A-2: Transition Table for CPAs with No EBSA Review

Filing Year 2012 Employee Benefit Plan Practice Size	Filing Year 2016 Employee Benefit Plan Practice Size: Firm Exited	1–2 Plans	3–5 Plans	6–24 Plans	25–99 Plans	100–749 Plans	750+ Plans	Total/Percent	
1–2 Plans	46.11%	41.25%	10.68%	1.96%	0.00%	0.00%		3,006	100.00 %
3–5 Plans	16.63%	17.94%	41.98%	23.13%	0.33%	0.00%		1,215	100.00 %
6–24 Plans	9.42%	3.97%	9.59%	66.12%	10.91%	0.00%		1,210	100.00 %
25–99 Plans	10.43%	3.04%	1.30%	6.09%	70.87%	8.26%		230	100.00 %
100–749 Plans	0.00%	3.85%	0.00%	7.69%	7.69%	80.77%		26	100.00 %
750+ Plans	*All CPAs with 750+ plans had an audit reviewed by EBSA in this time period.*								
Total	1,726	1,514	950	1,156	301	40		5,687	

Note: Exit rates calculated as percent of CPA firms in Filing Year 2012, while Figure 3 includes CPAs represented in Filing Year 2012 through Filing Year 2015.

Table A-3: Transition Table for CPAs with No Major Deficiency

Filing Year 2012 Employee Benefit Plan Practice Size	Filing Year 2016 Employee Benefit Plan Practice Size: Firm Exited	1–2 Plans	3–5 Plans	6–24 Plans	25–99 Plans	100–749 Plans	750+ Plans	Total/ Percent	
1–2 Plans	36.27%	47.15%	13.99%	2.59%	0.00%	0.00%	0.00%	193	100.00 %
3–5 Plans	12.90%	18.28%	49.46%	19.35%	0.00%	0.00%	0.00%	93	100.00 %
6–24 Plans	13.08%	1.87%	0.93%	64.49%	19.63%	0.00%	0.00%	107	100.00 %
25–99 Plans	4.55%	4.55%	1.52%	3.03%	75.76%	10.61%	0.00%	66	100.00 %
100–749 Plans	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	14	100.00 %
750+ Plans	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	75.00%	4	100.00 %
Total	99	113	75	94	71	22	3	477	

Note: Exit rates calculated as percent of CPA firms in Filing Year 2012, while Figure 3 includes CPAs represented in Filing Year 2012 through Filing Year 2015.

Table A-4 shows the odds ratios and significance for all predictors included in the model used to predict whether the CPA exits the industry, see Section 4.1.3. The odds ratio is an approximation for how much more likely a CPA with the indicated predictor will exit the industry as compared to a review with the following baseline characteristics:

- CPA audits 1–2 plans per year in Filing Year 2013;
- EBSA did not review CPA; and
- EBSA has not found major deficiency.

The significance column reports *p*-values for each predictor's odds ratio. The odds ratio is considered significant if the *p*-value is less than or equal to 0.05. Significant odds ratios appear with an asterisk (*).

Table A-4: CPA Exit Logistic Regression Results

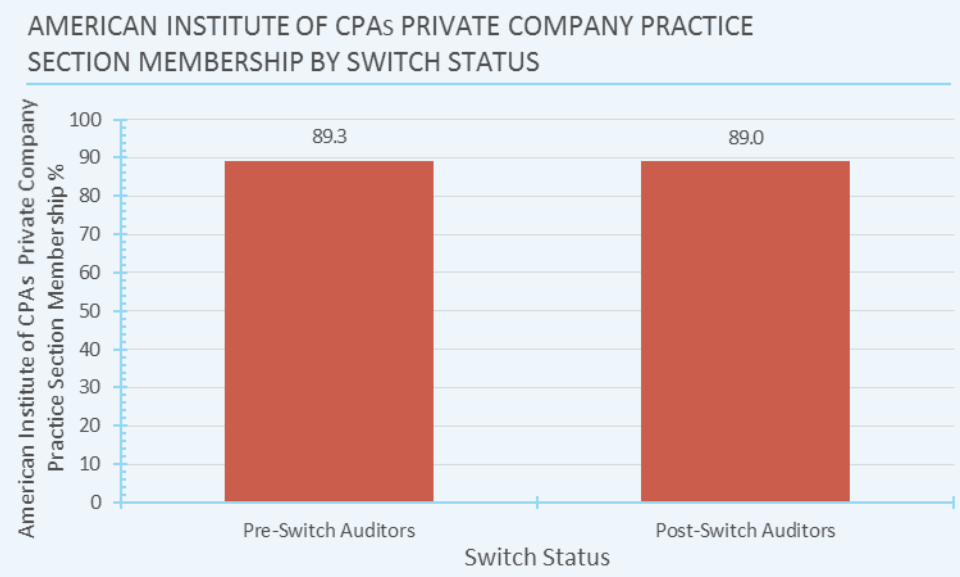
Category	Predictor	Coefficient	Odds Ratio	Significance
2013 Employee Benefit Plan Practice Size	CPA firm audits 3–5 plans per year	-1.274*	0.280*	0.000
2013 Employee Benefit Plan Practice Size	CPA Firm audits 6–24 plans per year	-2.623*	0.073*	0.000
2013 Employee Benefit Plan Practice Size	CPA Firm audits 25–99 plans per year	-3.945*	0.019*	0.000
EBSA Review	Reviewed by EBSA	0.068	1.071	0.809
EBSA Review	EBSA found major deficiency	1.184*	3.269*	0.000

N = 684

PLAN BEHAVIOR FOLLOWING EBSA REVIEW

Figure A-3 through Figure A-6 show pre- and post-switch CPA characteristics not included in the main body of the report. The figures show several self-reported characteristics of the CPA firms hired to do the benefit plan audits for the plans that ultimately switched auditors. For example, in Figure A-3, we see that for plans that switched auditors at some point in the period of study, 89.3% of the auditors before the switch self-reported as being members of the Private Companies Practice Section (PCPS)[17] of the AICPA, whereas 89.0% of the auditors hired post-switch reported belonging to the PCPS. The information conveyed in Figure A-3 through Figure A-6 reveals the auditors hired after a plan administrator decides to switch do not report belonging to various AICPA or State Society Memberships at a significantly different rate than the CPAs originally hired to audit those plans. These figures are presented here to show that the report considered these CPA characteristics, but that they were not ultimately factored into the regression model.

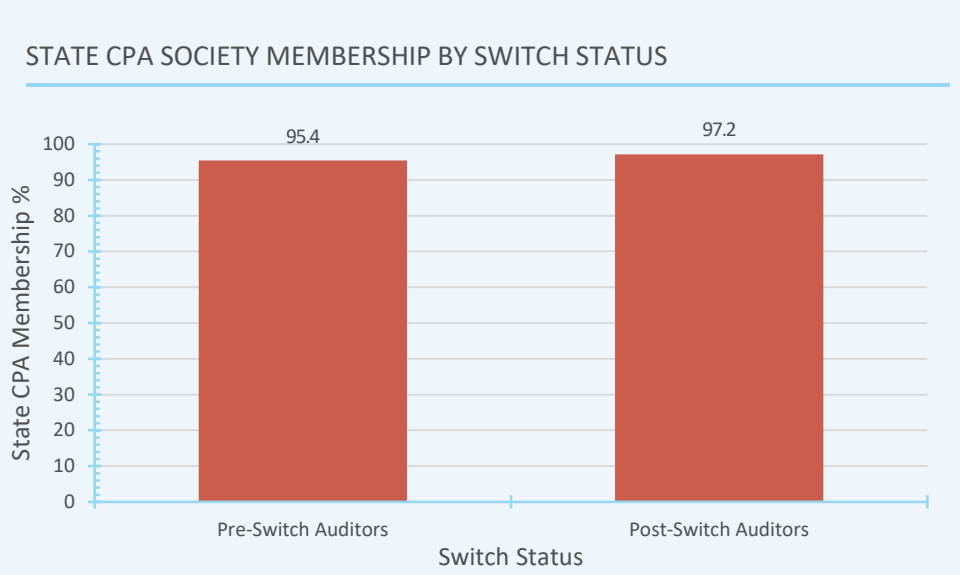
Figure A-3



N = 4,841 plans; excludes observations with missing membership data

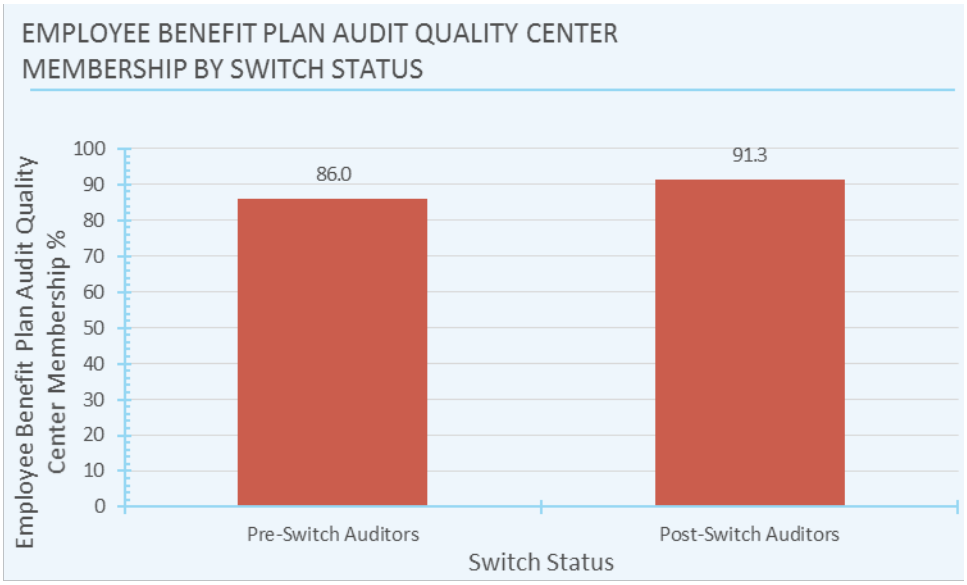
[17] https://www.aicpa.org/interestareas/privatecompaniespracticesection.html.

Figure A-4



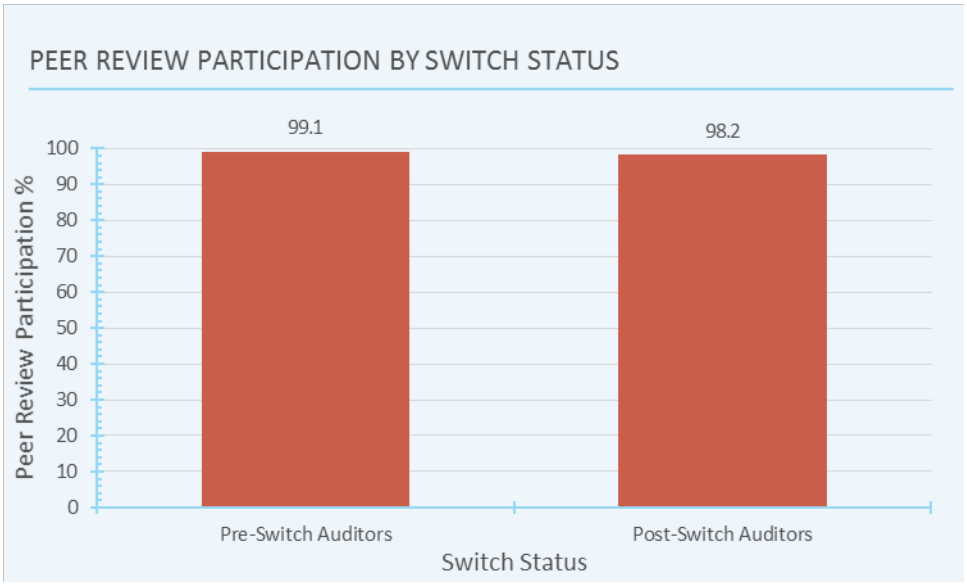
N = 4,940 plans; excludes observations with missing membership data

Figure A-5



N = 19,160 plans; excludes observations with missing membership data

Figure A-6



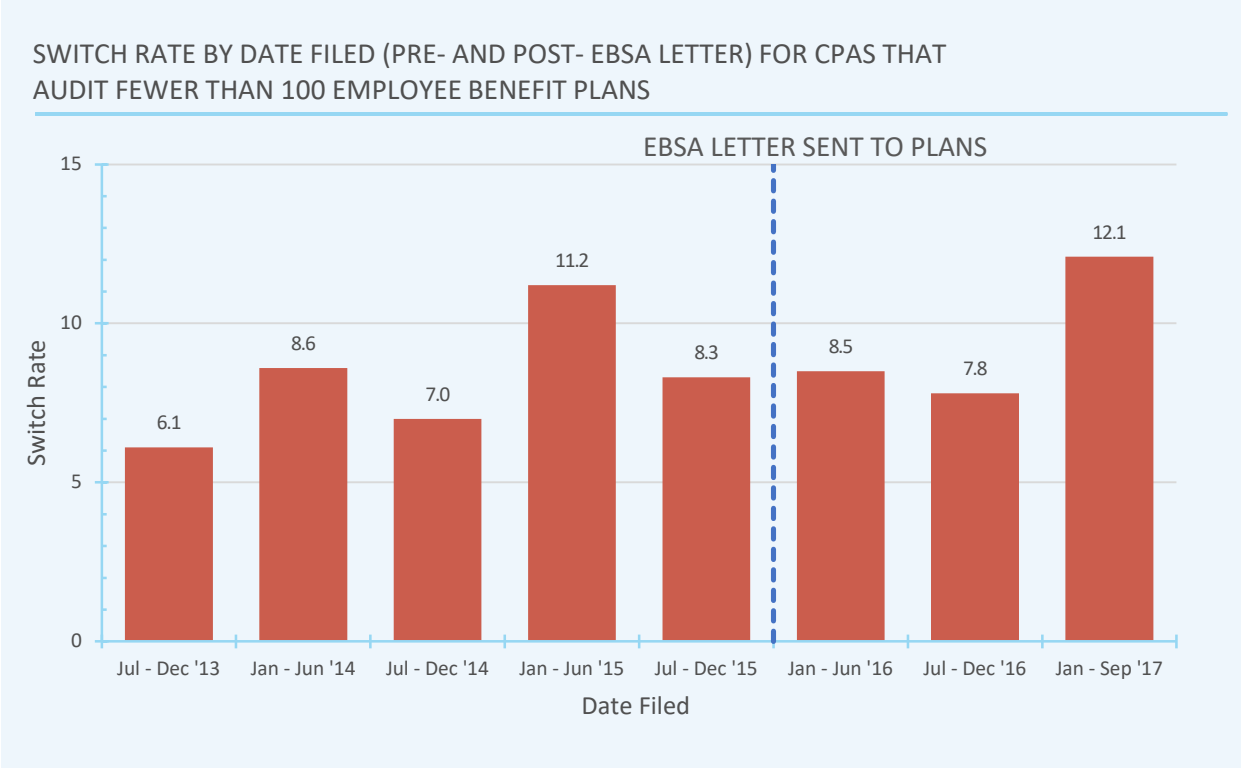
N = 21,196 plans; excludes observations with missing peer review data

Are plans more likely to switch CPAs after receiving an EBSA letter notifying them about the general rates of deficiency among small employee benefit plan practices?

On November 12, 2015, EBSA sent a letter to plan administrators strongly encouraging them to hire CPAs who possess the requisite knowledge of plan audit requirements and expertise to perform the audit in accordance with professional auditing standards (we provide a copy of this letter in Appendix D). The letter, which was sent to all plan administrators who filed in Plan Year 2014, mentions that the number of employee benefit plans audited by the CPA should be one of several factors of consideration before hiring an auditor. To determine if plans were more likely to switch CPA firms following the letter, we calculated the switch rate for six-month filing windows of Form 5500. EBSA sent the letter in November 2015, so this is the point in time where we would expect to see a difference. The switch rate is the number of plans that filed with a different CPA than their previous filing, divided by the number of plans that filed during that time period. While all plans received the letter, the analysis population is limited to plans that had CPAs that audit fewer than 100 employee benefit plans.

Figure A-7 shows these switch rates by filing date. There is not clear evidence that the letter to plan sponsors regarding CPAs that audit fewer than 100 employee benefit plans had any effect on switch rates.

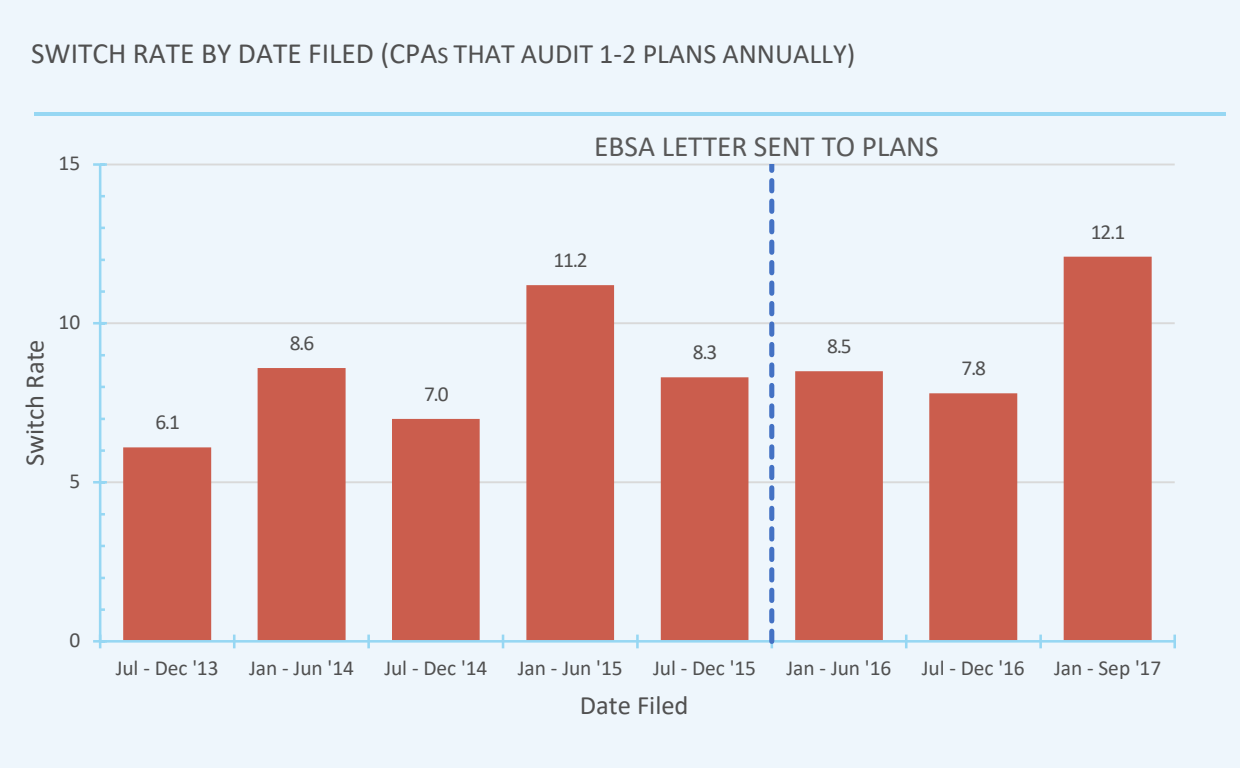
Figure A-7



N = 218,242 filings between July 2013 and September 2017; excludes CPAs that audit more than 100 employee benefit plans

Figure A-8 shows the switch rate by date filed for the population of audits performed by 1-2 plan CPAs. The dotted blue line indicates timing of the EBSA letter to plan administrators warning about deficiency rates of CPAs that audit fewer employee benefit plans.

Figure A-8



N = 20,046 filings between July 2013 and September 2017 that were audited by CPAs that audit 1-2 plans annually

Table A-5 shows the odds ratios and significance for all predictors in the model that predict plans that are switching CPAs, see section 4.2.4. The odds ratio is an approximation for how much more likely a plan with the indicated predictor will switch CPAs as compared to a plan with the following baseline characteristics:

- Plan's 2011 CPA audits 1–2 plans per year;
- Plan has fewer than 150 participants in 2011;
- Plan has less than $750,000 in assets;
- Plan is not a health and welfare plan; and
- Plan is not reviewed by EBSA.

The significance column reports *p*-values for each predictor's odds ratio. The odds ratio is significant if the *p*-value is less than or equal to 0.05. Significant odds ratios are indicated with an asterisk (*).

Table A-5: Plan-Level Logistic Regression Results

Category	Predictor	Coefficient	Odds Ratio	Significance
2011 Employee Benefit Plan Practice Size	CPA Firm audits 3–5 plans per year	-0.445*	0.645*	0.000
2011 Employee Benefit Plan Practice Size	CPA Firm audits 6–24 plans per year	-0.700*	0.498*	0.000
2011 Employee Benefit Plan Practice Size	CPA Firm audits 25–99 plans per year	-0.776*	0.469*	0.000
2011 Plan Size by Participants	150–249 participants	-0.123*	0.752*	0.000
2011 Plan Size by Participants	250–349 participants	-0.136*	0.743*	0.000
2011 Plan Size by Participants	350–599 participants	-0.056*	0.805*	0.000
2011 Plan Size by Participants	600+ participants	-0.051*	0.807*	0.000
2011 Plan Size by Assets	$750,000–$1,999,999	-0.271*	0.767*	0.000
2011 Plan Size by Assets	$2,000,000–$3,999,999	-0.426*	0.655*	0.000
2011 Plan Size by Assets	$4,000,000–$6,999,999	-0.525*	0.589*	0.000
2011 Plan Size by Assets	$7,000,000–$10,999,999	-0.533*	0.589*	0.000
2011 Plan Size by Assets	$11,000,000–$19,999,999	-0.633*	0.530*	0.000
2011 Plan Size by Assets	$20,000,000–$39,999,999	-0.636*	0.524*	0.000
2011 Plan Size by Assets	$40,000,000+	-0.745*	0.470*	0.000
Plan Type	Health and welfare plan	-0.201*	0.812*	0.000
EBSA Review	Reviewed by EBSA	-0.788*	0.477*	0.002
EBSA Review	EBSA found major deficiency	0.686*	1.878*	0.027

N = 36,988

CHANGES IN PLAN SELECTION OF A CPA OVER TIME

Table A-6: Top 50 Words Used in the Schedule C, Part III

Word	Count	Associated Words
termination	2,558	termin, terminal, terminate, terminated, 'terminated', terminating, termination, terminations
merging	2,073	merg, merge, merged, merges, merging
effectiveness	1,552	effect, effected, effective, effectively, effectiveness
enrollment	1,501	enroll, enrolled, enrollment
ein	1,383	ein, ein#, ein#26, eins
costs	1,330	cost, costing, costly, costs
sponsors	1,300	sponsor, sponsored, sponsoring, sponsors, sponsors'
result	1,195	result, resulted, resulting, results
reassignments	1,131	reassign, reassigned, reassigning, reassignment, reassignments
names	1,107	name, named, names
fees	1,006	fee, fees
practicing	996	practical, practice, practices, practicing
mergers	954	merger, mergered, mergers
retiring	947	retire, retired, retirement, retiring, retirment
financial	939	financial, financially, financials
internationally	926	internal, internally, international, internationally
bids	900	bid, bidding, bids
perform	893	perform, performance, performed, performing, performs

Word	Count	Associated Words
engaging	869	engage, engaged, engagement, engagements, engages, engaging, engagments
responsiveness	823	responsabilities, response, responses, responsibilities, responsibility, responsible, responsive, responsiveness
acquiring	754	acquire, acquired, acquirer, acquires, acquiring
competitively	730	competition, competitive, competitively
benefits	683	benefit, benefited, benefits
bdo	669	bdo
consolidation	652	consolidate, consolidated, consolidating, consolidation, consolidations
virchow	567	virchow
usa	548	usa
employs	540	employ, employed, employer, employers, employing, employment, employs
corporate	520	corporate, corporately, corporation, corporations
ending	516	end, ended, ending
mercer	503	mercer, mercers
trustees	490	trustee, trustees, trustees'
assignments	486	assigned, assignements, assignment, assignments
january	481	january
pricing	470	price, priced, prices, pricing
disagreement	460	disagreement, disagreements, disagrement
switched	458	switch, switche, switched, switching
hewitt	453	hewitt
replacing	450	replace, replaced, replacement, replaces, replacing
parentebeard	449	parentebeard
reported	448	report, reportable, reported, reporting, reports
different	446	difference, differences, different
clients	444	client, clients
administrator	441	administration, administrative, administrator, administrators
aon	436	aon
2012	431	2012
board	429	board
association	418	associate, associated, associates, association
moving	418	move, moved, moving
reasons	414	reason, reasonable, reasonableness, reasonably, reasons

Table A-7: Plan Switches Over Time – Logistic Regression Outputs[18]

Category	Predictor	Coefficient	Odds Ratio	Significance
Employee Benefit Plan Practice Size	3-5 plans	-0.532*	0.588*	0.000
Employee Benefit Plan Practice Size	6-24 plans	-0.830*	0.436*	0.000
Employee Benefit Plan Practice Size	25-99 plans	-0.934*	0.393*	0.000

[18] Excluding Direct Filing Entities and final filings.

Category	Predictor	Coefficient	Odds Ratio	Significance
Plan Size by Participants	150-249 participants	0.168*	1.183*	0.000
Plan Size by Participants	250-349 participants	0.188*	1.207*	0.000
Plan Size by Participants	350–599 participants	0.235*	1.265*	0.000
Plan Size by Participants	600+ participants	0.270*	1.310*	0.000
Year	2012	-0.085*	0.919*	0.000
Year	2013	0.105*	1.111*	0.000
Year	2014	0.130*	1.139*	0.000
Plan Size by Assets	$750,000–$1,999,999	0.266*	1.305*	0.000
Plan Size by Assets	$2,000,000–$3,999,999	0.272*	1.313*	0.000
Plan Size by Assets	$4,000,000–$6,999,999	0.243*	1.275*	0.000
Plan Size by Assets	$7,000,000–$10,999,999	0.209*	1.233*	0.000
Plan Size by Assets	$11,000,000–$19,999,999	0.206*	1.228*	0.000
Plan Size by Assets	$20,000,000–$39,999,999	0.218*	1.243*	0.000
Plan Size by Assets	$40,000,000+	0.131*	1.140*	0.018
Plan Type	DB	-0.046	0.955	0.222
Plan Type	Welfare	-0.128*	0.880*	0.008

N = 36,988

Appendix B Technical Specifications of Regression Models

We used logistic regressions to evaluate whether disparities in CPA exit or plan decision to switch CPAs exist for different plan characteristics, CPA characteristics, and plan years.

Regression-adjusted odds ratios—The odds of the outcome represent the probability (p) of the outcome relative to the probability of approval for a specific group.

Formally, the odds of deficiency are:

$$Odds(Major\ Deficiency) = \frac{P(Major\ Deficiency)}{1-P(Major\ Deficiency)} = \exp\{\boldsymbol{x_i'\beta}\},^{19}$$

where $\boldsymbol{x_i'}$ represents a vector of covariates and β is a vector of logistic regression coefficients.

An odds ratio is the odds of an outcome occurring for Group 1 relative to the odds of that outcome occurring for Group 2. In the case of a logistic regression CPA exit model, the odds ratio is the odds of CPA exit for a characteristic group relative to the odds of CPA exit for the group with a different characteristic. For example, this can be the odds of CPA exit for an employee benefit plan practice size of 3-5 plans per year relative to the odds of a CPA exit for an employee benefit plan practice size of 1-2 plans per year.

The regression-adjusted odds ratios were estimated using logistic regression models in which the dependent variable is a CPA exit indicator. Within this report, a statistically significant odds ratio refers to an odds ratio that is significant at the 5% significance level.

In building logistic regressions, we used Bayesian Information Criterion (BIC) to test the fit of the models:

$$BIC = -2 * \ln(L) + k * \ln(N),^{20}$$

where ln(L) is the maximized log-likelihood of the model, k is the number of parameters estimated, and N is the sample size. A lower BIC indicates a better-fitting model.

When testing models, we considered retaining the Audit Fees and Plan Participants variables as continuous rather than converting them to categorical variables. However, the BIC was higher when these variables were continuous.

We also tested interactions when building the models. We tested interactions between each type of plan characteristic and interactions between each type of CPA characteristic. However, interactions also created a lower BIC. Additionally, the interactions did not have statistically significant odds ratios, and they reduced the direct effect we observed for individual characteristics in the model and made them no longer statistically significant. For these reasons, we did not include interactions in the models.

[19] Agresti, Alan. An Introduction to Categorical Data Analysis: Second Edition. 2007. p.28–29.
[20] Raftery, A. E. Bayesian model selection in social research. In Vol. 25 of Sociological Methodology, ed. P. V. Marsden, 1995. p.111–163.

Appendix C Dataset Preparation

This section shares how we created each dataset, which includes the data source(s) we used, as well as the unit of analysis and timeframe. Table C-1 summarizes this section.

Table C-1: Summary of Research Question Datasets

Research Question	Perspective	Data Source(s)	Unit of Analysis	Timeframe	Model Population
Section 4.1	CPA-level	Form 5500 and Audit Quality Work Paper Review database	One CPA per filing year, matched with EBSA reviews closed that year	Filing Year 2012–Filing Year 2016	CPAs that audit fewer than 100 employee benefit plans and that were part of the sampling frame of the Audit Quality Study, but excluding CPAs reviewed by EBSA in the study period but not as part of the Audit Quality Study random sample
Section 4.2	Plan-level	Form 5500 and Audit Quality Work Paper Review database	One Form 5500 Schedule H filing per plan per year, matched with the most recent EBSA review	Plan Year 2011–Plan Year 2015	Plans audited by CPAs that audit fewer than 100 employee benefit plans and that were part of the sampling frame of the Audit Quality Study, but excluding plan audits reviewed by EBSA in the study period but not as part of the Audit Quality Study random sample
Section 4.3	Plan-level	Form 5500	One Form 5500 Schedule H filing per plan per year	Plan Year 2011–Plan Year 2015	CPAs that audit fewer than 100 employee benefit plans
Section 4.3.3	Plan-level	Form 5500	Each individual submission of termination information on accountants from the Schedule C	Plan Year 2011–Plan Year 2015	N/A

TRENDS IN THE CPA POPULATION AND CPA BEHAVIOR OVER TIME (SECTION 4.1)

This research question examines CPA behavior after an EBSA review. We compare exit rates for reviewed CPAs to CPAs not reviewed by EBSA.[21] We also analyze whether we can associate EBSA review status with a change in the number of plans a CPA audits. The dataset we used for this question includes the Form 5500 data and the EBSA Work Paper Review database, which is unique on CPA/filing year.

We prepared the EBSA Work Paper Review database by counting the number of reviews EBSA performed on each CPA each year, as defined as the year the EBSA review closed. We also made a variable indicating whether any of those reviews had an unacceptable major deficiency finding. The resulting dataset from this intermediary step is unique for the CPA/year of the EBSA review closing.

We prepared the Form 5500 data by counting the number of plans each CPA audited each filing year and categorizing employee benefit plan practice size by filing year. Performing this analysis on filing year rather than plan year allowed us to observe changes in CPA behavior as plans submitted filings.

We merged the prepared EBSA data with the prepared Form 5500 data, resulting in a database that was unique for the CPA/filing year. The year also represented the year any EBSA reviews were closed. Filing Year 2011 and Filing Year 2017 did not include the full population, so we limited the dataset to Filing Year 2012 through Filing Year 2016.

Table C-2: Summary of Dataset – Section 4.1

Final Dataset	
Observation Definition	One CPA per filing year, matched with EBSA reviews closed that year
Observations	41,740
Timeframe	Filing Year 2012–2016
Form 5500 Filings Represented	387,885
Plans Represented	89,330
Unique CPAs	8,348
Unique EBSA Reviews	1,907

Note: This research question only includes EBSA reviews closed 2011 through 2016. Other research questions include EBSA reviews closed 2008 through 2017 if there was at least one Form 5500 filing submitted after the review was closed.

[21] Exit rate is defined as the number of CPA firms that had plan audits in Filing Year 2012 but did not have plan audits in Filing Year 2016, as a percentage of CPA firms that had plan audits in Filing Year 2012.

PLAN BEHAVIOR FOLLOWING EBSA REVIEW (SECTION 4.2)

This research question examines plan behavior after the EBSA review. We compare switch rates for reviewed plans to plans not reviewed by EBSA, analyze switch rates by plan characteristics, and compare pre- and post-switch CPA characteristics. We also analyze switch rates by filing date to determine if there is an observable change after the EBSA letter notifying plans about audit quality and the general rates of deficiency among small audit practices. We used the Form 5500 dataset used for this question, which we merged with Schedule H filings and the EBSA Work Paper Review database. The dataset contains 398,170 filings for 89,434 plans, which is the same number of filings and plans included in Section 4.3 (described further below).

We prepared the EBSA Work Paper Review database by limiting the timeframe to reviews that may influence any plan behavior that is observable in the Form 5500 time period, making it unique to the plan and plan year. First, we dropped any EBSA reviews closed before 2008 because we would not expect these to have an effect on plan behavior. For plans that had multiple EBSA reviews within one plan year, we kept the first review to make the dataset unique to the plan and plan year.

We merged the EBSA Work Paper Review database with the Form 5500 data by matching each EBSA review with the plan's next Form 5500 filing filed after the EBSA review closed. We excluded reviews of plans that did not have any additional filings submitted. We created a "days since most recent EBSA review" variable that shows the time between when each filing was submitted and the most recent EBSA review.

Table C-3 summarizes the final dataset that we used for this research question.

Table C-3: Summary of Dataset – Section 4.2

	Final Dataset
Observation Definition	One Form 5500 Schedule H filing per plan per year, matched with the most recent EBSA review
Observations	398,170
Timeframe	Plan Year 2011–Plan Year 2015
Unique Form 5500 Filings	398,170
Unique Plans	89,434
Unique CPAs	8,377
Unique EBSA Reviews	3,252

CHANGES IN PLAN SELECTION OF A CPA OVER TIME (SECTION 4.3)

Section 4.3.1 – 4.3.2

This question analyzes the switch rate by plan year across plan and CPA characteristics.[22] For this question, we used Form 5500 data, which we merged with Schedule H filings. The business rules applied for this merge are outlined in the data sources section. For the analysis of this question, the unit of observation changes from one EIN/Plan Number per year to one EIN/Plan Number across years 2011 to 2015. This changes the number of observations from 398,170 to 89,434.

[22] Switch rate in this context refers to the percentage of plans that switched CPA firms.

Table C-4 summarizes the final dataset that we used for this research question. Because we are filling in missing values for plans that are not present across all years, the count per year changes.

Table C-4: Summary of Dataset – Section 4.3

Final Dataset	Total	2011	2012	2013	2014	2015
Timeframe	Plan Year 2011–Plan Year 2015	2011	2012	2013	2014	2015
Unique Observations	89,434	77,514	80,999	81,009	81,312	77,336

Section 4.3.3

Part III of the Schedule C has a section titled "Termination Information on Accountants and Enrolled Actuaries." This section is completed whenever there is a termination in the appointment of an accountant or enrolled actuary during the given plan year. In this section, filers explain their reasons for terminating an accountant or enrolled actuary. For this research question, we conducted a text analysis of these reasons.

The final dataset contains submissions of Schedule C, Part III. These submissions are associated with a plan that also filed the Schedule H for the same plan year. The analysis period includes Plan Year 2011 through Plan Year 2015. We remove Schedule C, Part III submissions with a missing accountant EIN because the accountant type is unknown.

By subsetting our data to Schedule C, Part III filings associated with a Schedule H, we limit the analysis population to plans that employ CPAs. If a plan has more than one service provider termination in a given plan year, then each service provider is associated with a separate Schedule C Part III filing. However, we limit our analysis to instances with non-missing accountant EINs to limit the number of Schedule C Part III filings that may be associated with terminating a service provider that is not a CPA.

Table C-5 summarizes the data cleaning process. Note, that although the majority of Schedule H filings are associated with a Schedule C filing, only 6% of Schedule H filings are associated with a Schedule C, Part III filing.

Because plans may submit more than one Schedule C, Part III filing, our final analysis population is 25,326.

Table C-5: Waterfall of Population Schedule C, Part III Filings Population

Population	Count of Unique Audits	Percent of Schedule H Filing Population
Plan Year 2011–2015 Schedule H filings	400,430	100.0%
Plan Year 2011–2015 Schedule H filings that filed a Schedule C	370,812	92.6%
Plan Year 2011–2015 Schedule H filings that filed a Schedule C, Part III with non-missing accountant EINs	24,878	6.2%

Appendix D EBSA Letter Sent to Plan Administrators

A MESSAGE FROM THE CHIEF ACCOUNTANT, U.S. DEPARTMENT OF LABOR

November 12, 2015

[Plan Administrator]

[Plan Name]

[Company Name]

[Company Address]

Attn: [Plan Administrator]

Re: Tips for Selecting and Monitoring a Plan Auditor

Dear Plan Administrator:

I am sending you this email alert because you may be in the process of selecting or working with a CPA firm to audit the «Plan_Name»'s 2015 financial statements that will be submitted to the Department of Labor (DOL) as part of the Plan's Form 5500 filing. Selecting a qualified CPA who has the expertise to perform an audit in accordance with professional auditing standards is a critical responsibility in safeguarding your plan's assets and ensuring your compliance with ERISA's reporting and fiduciary requirements.

Substandard audit work can be costly to plan administrators and sponsors. It both jeopardizes plan assets and can result in significant civil penalties being imposed on the plan administrator by the DOL. A recent study conducted by the Department of Labor found serious problems with nearly 40% of employee benefit plan audits. (You may read this study on our website at: www.dol.gov/ebsa).

A quality audit will help protect the assets and financial integrity of your Plan and help to ensure that the necessary funds will be available to pay the benefits promised to your Plan's participants and their beneficiaries. It also helps make sure your Plan is in compliance with the law.

Employee benefit plan audits have unique audit and reporting requirements and are different from other financial audits. Care should be taken by the plan administrator to select a CPA who possesses the requisite knowledge of plan audit requirements and expertise to perform the audit in accordance with professional auditing standards. To ascertain the qualifications of a CPA firm to perform your Plan's audit you might want to consider the following factors:

- The number of employee benefit plans the CPA audits each year, including the types of plans;
- The extent of specific annual training the CPA received in auditing plans;
- The status of the CPA's license with the applicable state board of accountancy;
- Whether the CPA has been the subject of any prior DOL findings or referrals, or has been referred to a state board of accountancy or the American Institute of CPA's for investigation; and
- Whether or not your CPA's employee benefit plan audit work has recently been reviewed by another CPA (this is called a "Peer Review") and, if so whether such review resulted in negative findings;

Additional tips for selecting an auditor and monitoring your auditor's work can be found in our pamphlet "*Selecting an Auditor for Your Employee Benefit Plan*" found at: http://www.dol.gov/ebsa/publications/selectinganauditor.html.

We are eager to discuss with you the importance of a quality audit for your plan. Please email us at PlanForAuditQuality@dol.gov or call our Audit Quality Hotline: 202-693-8818 for more information.

Note: We are NOT requesting Personal Identifiable Information (PII) of either you or your employees.