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Comparison of Outlier Follow-Up in an Individual vs. Establishment Survey

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*The views expressed herein are those of the authors and do not represent those of the IRS.

Outliers

■ Outlier

An outlier is a case with an extreme value relative to the majority of cases in the dataset. For this study, outliers were defined by data from previous administrations in the case of one survey and by “trigger” values set by the IRS in the case of the other survey.

■ Types of Outliers

■ Representative

Correct or valid observation

■ Non-representative

Incorrect observation due to error

■ Methods for Resolving Outliers

■ Post-data collection

Statistical methods

■ During fielding of survey

Follow-up with respondents during survey administration or shortly after

The Current Study

- The purpose of the present study is to compare outlier resolution from two web surveys that cover similar topics but have different respondent populations.
- In both cases, an outlier was considered “resolved” if:
 - A respondent corrected the answer and gave a new within-range response
 - A respondent kept their original response and explained it

The Two Surveys Under Comparison

- 2010 IRS Individual Taxpayer Burden Survey
 - Measures taxpayer burden associated with individual tax returns, e.g., 1040, 1040A, 1040EZ
- 2013 IRS Employment Tax Burden Survey
 - Measures taxpayer burden associated with employment tax returns and wage statements, e.g. 940, 941 & W-2, 1099-MISC
- The two surveys both include items about time and/or money spent on:
 - Recordkeeping
 - Preparing quarterly and/or annual tax returns
 - Purchasing software
 - Cost of professional tax preparation assistance

How did the Web Survey Outlier Follow-up Work?

- An immediate follow-up screen informed respondents that their response to a time or money question was “more than we expected”
- Respondent was asked to:
 - Correct answer (in the case of an error) OR
 - Say more about the activities included in the time/money estimate in open-ended text box

Individual Survey Follow-up Screen Shot

Respondent reported spending 100 hours on recordkeeping

Time Spent on Tax-Related Activities

You spent more hours on recordkeeping than we expected. If you entered 100 hours by mistake, please correct your answer below.

Recordkeeping

Include time spent throughout the tax year:

- Keeping track of tax-related information, such as records or receipts
- Collecting and organizing your tax-related records
- Making a special effort to obtain records or receipts

:
Hours Minutes

Do not include time spent on non-tax related business or personal recordkeeping.

If 100 hours is correct, please tell us more about the type of recordkeeping activities you did.

(1000 characters remaining)

Employer Survey Follow-up Screen Shot

Respondent reported spending 300 hours on recordkeeping

Employment Tax Return Activities

The time spent on recordkeeping is more than we expected. If you entered 300 hours and 0 minutes by mistake, please correct your answer below.

a. Recordkeeping

Examples include:

- Tracking, collecting and organizing records
- Making special effort to obtain records

300 : 0
Hours Minutes

If 300 hours and 0 minutes is correct, please say more about the type of recordkeeping activities you did.

0 of 500 maximum characters.

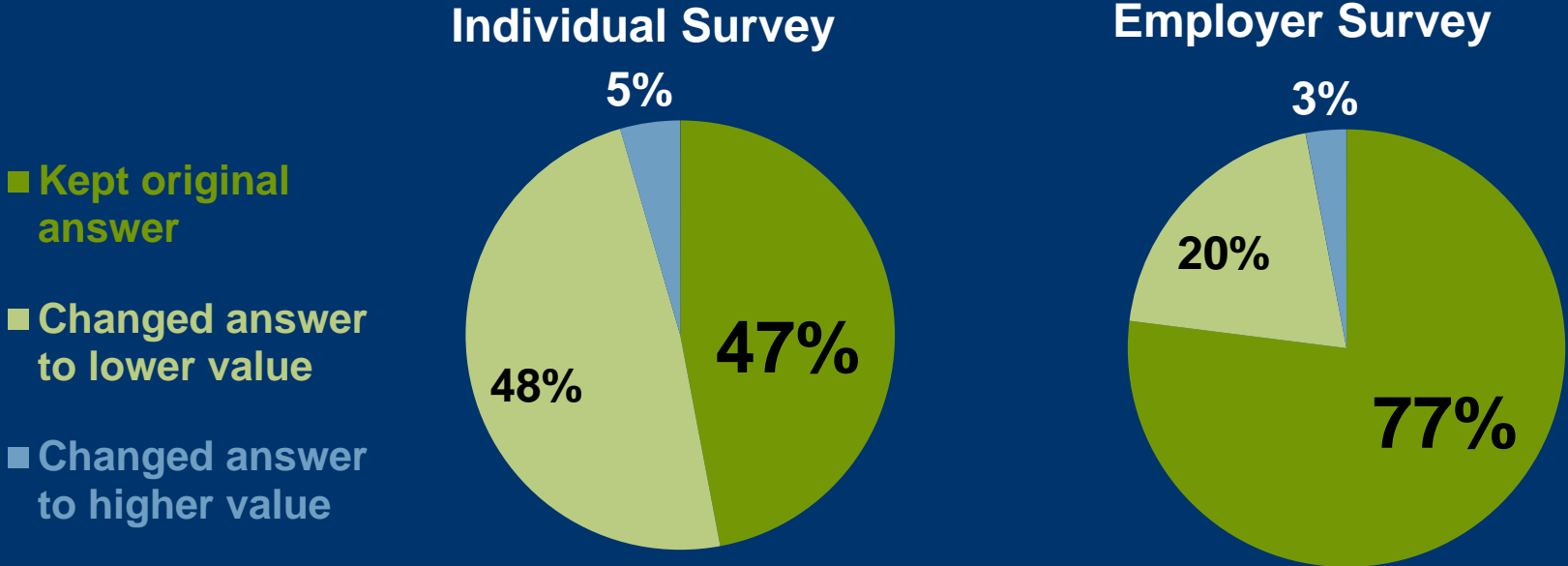
Identification of Outliers

	Number of web survey completes	% of responses identified as outliers
Individual Survey (9 items where outlier follow-up was possible)	537	1.39%
Employer Survey (20 items where outlier follow-up was possible)	592	1.81%

There was no significant difference in outlier rates between the two surveys

Outcome of Outlier Follow-up by Survey Type

- Respondents to the Employer Survey were significantly more likely than respondents to the Individual Survey to keep their original answer ($p < .01$)
- Regardless of survey type, when an answer was changed, it was typically changed to a lower value. This is not surprising since the follow-up text stated that the answer was “more than we expected.”

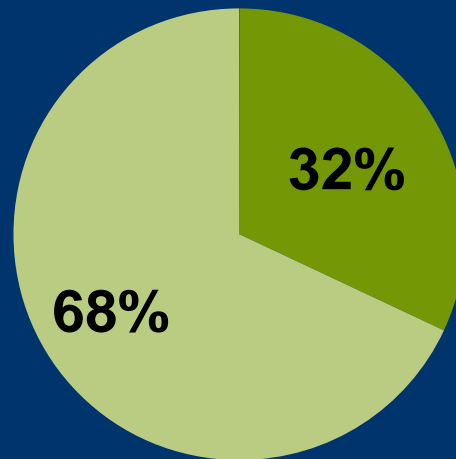


Outcome of Outlier Follow-up by Survey Type

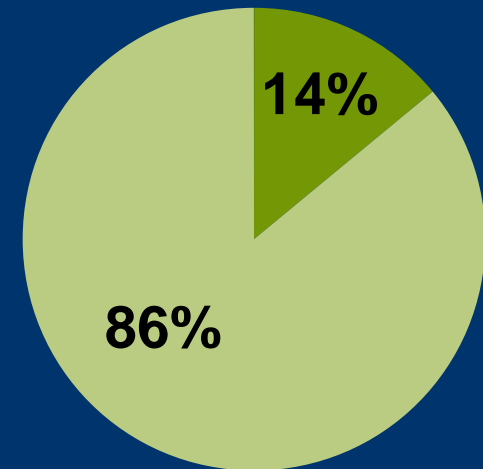
continued

- When respondents to the Individual Survey changed their answer to a lower value, it was twice as likely to remain an outlier as compared to revised outlier responses in the Employer Survey (32% vs. 14%, $p < .01$)

Individual Survey



Employer Survey



■ New value remained outlier

■ New value within expected range

Qualitative Analysis of Outlier Explanations

Substantive Explanation

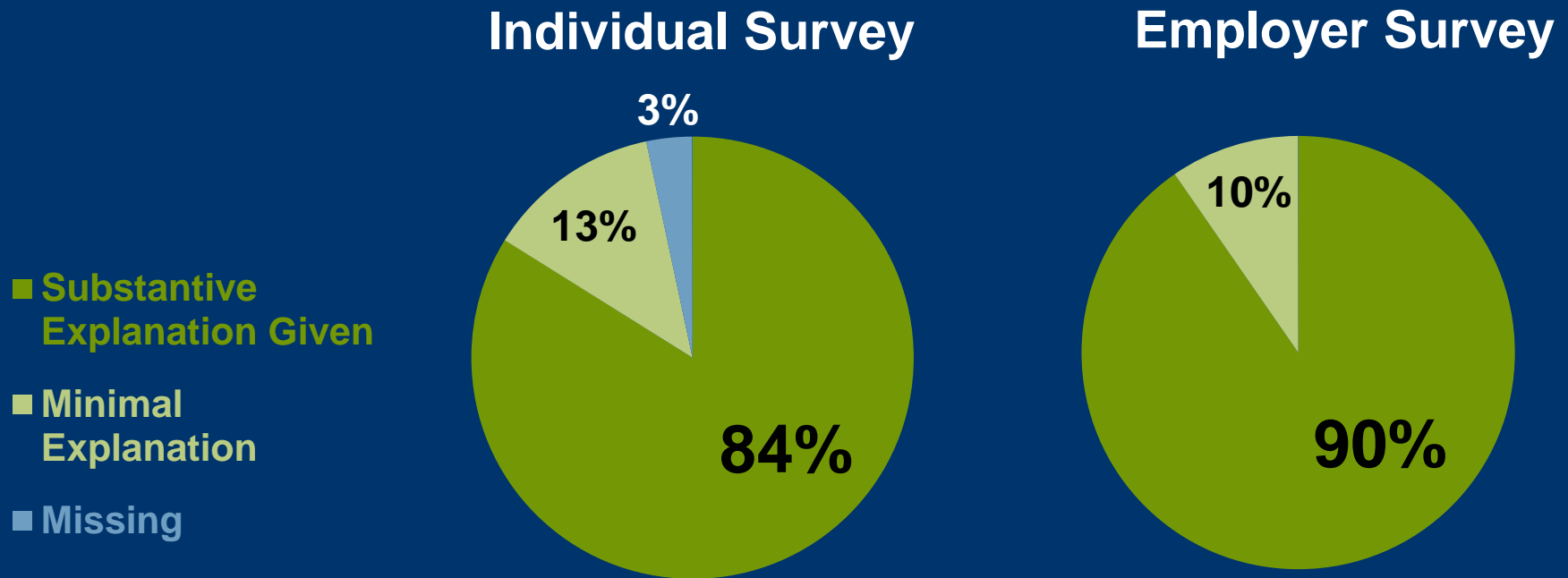
- Barriers (e.g., language barriers, unclear instructions, difficulty obtaining forms)
- Complex recordkeeping methods
- Complex tax return due to business interests
- Efforts to reduce tax liability
- New to employer tax forms
- Time to learn recordkeeping software
- Recent changes in business structure

Minimal Explanation

- e.g., “I spent a lot of time keeping records” or “Payroll”

Quality of Explanations of Outliers by Survey Type

- Respondents to each survey were equally likely to provide a substantive explanation of their outlier



Overall Summary of Survey Type Differences

- Respondents to the Employer Survey were significantly more likely than respondents to the Individual Survey to keep their original answer when prompted to revise an outlier value.

Employer Survey outliers unchanged after prompt: 77%

Individual Survey outliers unchanged after prompt: 47%

- Across both survey types, when an answer was changed, it was most often changed to a lower value (which reflects the wording of the prompt).

Employer Survey outliers revised to a lower value: 20%

Individual Survey outliers revised to a lower value: 48%

- When Individual Survey respondents changed their answer, even when it was a lower value, they were more likely to give another outlier value

Employer Survey outliers replaced by another out-of-range value: 32%

Individual Survey outliers replaced by another out-of-range value: 14%