

Adding a Business Survey to the BLS Annual Refiling Survey (ARS)

Quarterly Census of Employment and Wages

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Quarterly Census of Employment and Wages (QCEW)

- Federal/State Cooperative program
 - ▶ State Unemployment Insurance (UI) Programs and the Bureau of Labor Statistics (BLS)
- Publishes county-level summaries of monthly employment and quarterly wages by industry
 - ▶ Goods-producing and services-producing sectors
 - ▶ 2-, 3-, 4-, 5-, and 6-digit NAICS industry detail
- The universe for BLS sample-based surveys

Annual Refiling Survey (ARS)

- State UI program industry classification is subject to BLS review and verification
 - ▶ 1/3 of in-scope establishments are surveyed each year (~1.2m)
 - ▶ Asked to review their address and industry information and to correct if necessary
 - **~750,000 single-unit establishments**
 - ~60,000 multi-unit reporters (comprising about ~450,000 establishments)

Single Units and Multi Units in the ARS

- Single unit reporters are collected online via the secure **ARSWeb** application hosted by BLS.
- Multi unit reporters are collected online via the secure **NVMWeb** application hosted by BLS. Multi unit reporters may already provide their Multiple Worksite Report (MWR):
 - ▶ online quarterly via the secure, **MWRWeb** application hosted by BLS, or
 - ▶ on paper quarterly
 - ▶ or to the BLS EDI Center in Chicago quarterly

Why Attempt Quarterly Collection?

- Online collection of the ARS provides a low-cost platform for conducting quick-response surveys
- Test whether we can collect the ARS within a much shorter window. Assess the impact this could have on ARS responses and response rates



Ancient Timeline - ARS

- First request mailing early October of the prior year
- Data collection thru early September of the survey year
- Response rates between 78% and 80%



Accelerated Timeline ARS

- Emailing first request end of July of the prior year
- First request mailing for non-respondents
September
- Data collection through June of the survey year.
- Final 2016 response Rate 80%



2017 ARS Quarterly Collection Test Single Units

Panel

- ▶ QARS1 – 35,672
- ▶ QARS2 – 33,320
- ▶ QARS3 – 33,114
- ▶ QARS4 – 33,330
- ▶ Annual – 617,828

Data Collection Timeframe

- End of July – Mid-December
- Early October – Mid-February
- Early January – End of April
- Early April – End of June
- Annual – End of July – End of June

Quarterly Timeline

■ QARS-1

- ▶ 1st email late July 2016
- ▶ 2nd email mid Aug. 2016
- ▶ 1st mail mid Sept. 2016
- ▶ 3rd email late Sept. 2016
- ▶ 2nd mail mid Oct. 2016
- ▶ 3rd mail early Nov. 2016

- ▶ 75% response rate by mid-December 2017

- ▶ 4 months and 3 weeks

■ QARS-2

- ▶ 1st email early Oct. 2016
- ▶ 2nd email mid Oct. 2016
- ▶ 1st mail early Nov. 2016
- ▶ 3rd email mid Nov. 2016
- ▶ 2nd mail early Dec. 2016
- ▶ 3rd mail early Jan. 2017

- ▶ 72% response rate by mid-February 2017

- ▶ 4 months and 3 weeks

Quarterly Timeline Adjustment

■ QARS-3

- ▶ 1st email early Jan. 2017
 - ▶ 1st mail early Jan. 2017
 - ▶ 2nd email late Jan. 2017
 - ▶ 2nd mail mid Feb. 2017
 - ▶ 3rd email late Feb. 2017
 - ▶ 3rd mail late Mar. 2017
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- ▶ 56% response rate by late Mar. just before 3rd mailing

▶ 12 weeks

■ QARS-4

- ▶ 1st email late Mar. 2017
- ▶ 1st mail early Apr. 2017
- ▶ 2nd email mid Apr. 2017
- ▶ 2nd mail early May 2017
- ▶ 3rd email mid May 2017
- ▶ 3rd mail early June 2017

What We've learned

- Fielding the annual survey plus four quarterly panels is five times the work of just fielding the annual survey
 - ▶ Instead of three email blasts, we blast 13 times
 - ▶ Instead of processing files for three mailouts, we process files for 15 mailouts
 - ▶ Instead of tracking and managing one annual survey, we track and manage 5 surveys
- Response rates for the QARS are roughly 2%-5% lower with the shortened collection window

... more of What We've learned

- There's no reason to collect the ARS quarterly unless there is a business survey to field. The original reasons for testing quarterly collection:
 - ▶ Online collection of the ARS provides a low-cost platform for conducting quick-response surveys
 - ▶ Test whether we can collect the ARS within a much shorter window. Assess the impact this has or will have on ARS responses and response rates
- It takes more than one quarter to collect 70% of the sample.

What's Next

- BLS plans to conduct an operations test for a business survey in conjunction with the 2018 ARS.
- Return the ARS to an annual collection cycle
- Ask respondents to answer 5-6 additional questions after they have completed their ARS online
 - Determine feasibility of concept
 - Measure costs of approach
 - Use dynamic sampling



Dynamic Sampling

■ Traditional Sampling

1. Establish sampling criteria
2. Select the sample
3. Solicit the sample either via email or mail
4. Wait for responses
5. Send a second solicitation either via email or mail
6. Wait again for responses
7. Send a third email
8. Wait yet again, and finally
9. Send a final paper solicitation.
10. Wait for responses

■ Dynamic Sampling

1. Establish sampling criteria
2. Flip a switch to ask ARS respondents to answer additional questions for a certain block of time
3. Assess the responses wrt to sampling criteria
4. Turn the switch off to stop asking the additional questions after the targets are met.

Peak ARS Response Times

- 72,000 ARS responses collected in 3 weeks after two e-mail blasts
- 200,000 ARS responses collected in 9 days after 1st mailout
- 95,000 ARS responses collected in 10 days after 2nd mailout



Additional Information

- “Web Collection in the Quarterly Census of Employment and Wages Program” by Stang and Thomas

http://ww2.amstat.org/meetings/ices/2016/proceedings/072_ices15Final00299.pdf

- “Email Solicitation for a Business Establishment Survey - Results from the 2015 Annual Refiling Survey” by Stang and Thomas

<http://www.eventscribe.com/2016/ASA-JSM/assets/pdf/389517.pdf>



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