Case Studies: Two Approaches to Web Development for Data Collection in QCEW

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Quarterly Census of Employment and Wages Data Collection



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www.bls.gov

QCEW Overview

- Quarterly Census of Employment and Wages
 - Publishes a quarterly count of employment and wages reported by employers
 - Covers 98 percent of U.S. jobs
 - Available at the county, MSA, state and national levels
 - Available by industry

QCEW is a Fed-State program where data is collected in cooperation with 53 State agency partners.



Uses of Quarterly Census of Employment and Wages Data (QCEW/ES-202)



Data Collection for QCEW

1. Annual Refiling Survey (ARS)

Collects and verifies information on the geographic and industry of businesses.

2. Multiple Worksite Report (MWR)

- Collects employment and wage data from employers with multiple locations in a State
- MWR is a quarterly report



Annual Refiling Survey Overview

The QCEW universe contains about 9 million records and each year, approximately 1/3 of the QCEW universe is eligible for the ARS.

The ARS asks 2 basic questions:

- 1. Verify **Industry** Information
 - Respondents are asked to verify the main business activity of their business. If the preprinted description is incorrect, they are asked to provide a written description of their business activities and revenue.

2. Verify <u>Geographic</u> Information

 Respondents are asked to verify or update their business mailing address, physical location address, and county.



Three Different ARS Forms

1. Singles: Accounts with <u>one</u> location

- Straightforward, one-page form
- One location and one economic activity
- NAICS Verification of Singles (NVS)

2. Multis: Accounts with <u>multiple</u> locations

- Complex form with up to 12 pages.
- Multiple locations, addresses, and economic activities
- NAICS Verification of Multis (NVM)
- 3. Unclassified: Accounts with one location where we do not know their current industry (NCA).



Two New Web Collection Activities

1. ARS Web (for <u>Singles</u>)

- Brand new data collection site.
- Designed from scratch in partnership with IDCF and DBES.
- Collects data for 130,000+ accounts annually

2. NVM on MWR Web (for <u>Multis</u>)

- We currently have a web system that collects employment and wage data quarterly for employers with multiple worksites.
- Existing website collects data for 40,000+ accounts
- Web screens were added to an existing web collection structure to collect additional information from respondents.



ARS Web for Singles

John Peters, Economist Quarterly Census of Employment and Wages Data Collection Branch



Annual Refiling Survey Growth

 For the ARS, QCEW mails approximately 1.4 million ARS forms per year

- Postage rates continue to increase year over year
- Costs continue to rise for collection via paper survey forms.



Growth of the ARS



BLS

First Class Postage Rate Increases



ARS Data Collection

Paper form

- Respondents receive:
 - Cover letter, form, and business reply envelope
- Expensive
- No automated error checking
- Manual data entry and possible follow up required

Touchtone Response System

- Select respondents are given the chance to respond via automated phone system
- Expensive and older technology
- Promotes respondents indicating all data is correct
- No automated error checking
- No manual data entry.



ARS Web Objectives

Three Major Objectives for Web Design

- 1. Reduce Survey Costs
 - Particularly postage costs
- 2. Maintain or Reduce respondent burden
 - This is measured by OMB's "time of completion" estimate.
- 3. Improve Data Quality
 - Add live edits to help respondents complete survey
 - Maintain response rates



ARS Web Design and Development

Website Layout Organized into Two Sections

- 1. Geographic Verification
 - Business Mailing Address and respondent contact information
 - Physical Location Address
 - County
 - Single/Multi question
- 2. Industry Verification
 - Description of current main business activity and option to correct



ARS Web Screenshots

Section 1: Geographic Verification



Annual Refiling Survey

Address and Contact Verification Page

UI Account Number: 0123456789 State: UA Legal Name: ABC Company

Please review the information below, and make corrections where needed.

Business Mailing Address

Please review the address below. If the information is incorrect please enter updated information.

(*Required Field)



Physical Location Address

Please review the address below. If the information is incorrect please enter updated information. Do not include P.O. Box or out of State addresses.

This business has one or more Physical Locations in Nevada.



It is business has NO Physical Locations in Nevada.

*County

Please select the County, Township, Island, or Parish where you business is physically located. If you do not know it or it is not listed, please check the box below.

- 0

- Select One -

I don't know my County or I don't see my County listed above.

Logout

ARS Web Screenshots

Section 1: Industry Verification



Annual Refiling Survey

Main Business Activity

UI Account Number: 0123456789 State: UA

Legal Name: ABC Company

Please review the description of your main business activities, goods, products, or services in this State. This is a general description of your main business activity and may not be an exact match. There may be activities listed in which you do not participate. If the information displayed below is correct for a majority of your business, please check "YES". If it is incorrect for a majority of your business, please check "NO" and click the continue button.

DRINKING PLACES, ALCOHOLIC BEVERAGES

Preparing and serving alcoholic beverages for immediate consumption in bars, taverns, night clubs, or drinking places. These establishments may also provide limited food service.

DOES NOT INCLUDE: Providing alcoholic beverages in combination with food services in restaurant operating a civic or social association with a bar for association members; retailing packag alcoholic beverages for later consumption; or operating alcohol-free discotheques or dance clubs.

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Save & Continue

Previous

* Does the description above accurately reflect your main business activity during the past 12 months?

○ YES ○ NO

If you answer 'NO' you will be able to choose your correct economic activity on the next page.

If you have questions about the Annual Refiling Survey, please contact: Nevada Dept of Employment, Training & Rehab Research And Analysis Bureau 500 E. Third Street Carson City, NV 89713-0021 PH: <u>775-684-0499</u> FAX: (775) 684-0342

If you have questions about the website, please send an e-mail to ars.helpdesk@bls.gov

Annual Refiling Survey 🔛

Main Business Activity Selection

UI Account Number: 0123456789 State: UA

Legal Name: ABC Company

Please use the key-word search to look for a short description that best describes your business. If you do not see an applicable description, please write a description below.

Type your key word search: restaurant Search	
Carryout restaurants	^
Delicatessen restaurants	
Delicatessens (except grocery store, restaurants)	
Drive-in restaurants	
Family restaurants, full service Family restaurants, limited-service	
Fine dining restaurants, full service	
Full service restaurants	
Furniture, restaurant-type, manufacturing	
Reservation (e.g., airline, car rental, hotel, restaurant) services	
Restaurant associations	
Restaurant construction	*
Limited-service restaurants	
Providing meal-type foods at limited service or "fast food" restaurants where customers generally order or select food items and pay before eating. Food and drink may be eaten on the premises, taken out, or delivered to customers locations. These food services may be provided in combination with selling alcoholic beverages. Examples may include, but are not limited to: * Carry out sandwich shops * Fast food hamburger restaurants * Pizza delivery shops * Drive-in restaurants * Limited-service delicatessens * Take-out eating places	
DOES NOT INCLUDE: Full service restaurants, where customers receive waiter/waitress service and	
pay after eating; cafeterias; specialty snack shops selling nonalcoholic beverages or a limited line of snack foods such as ice cream, donuts, or coffee; or grill buffets.	

* Does the Main Business Activity selected above accurately represent your business?

VES

○ NO , I am unable to find an applicable Main Business Activity

*Please enter a description of your main business activities, goods, products, or services in this State, as though you were telling a prospective employee what you do. Please describe the activities in the boxes below



ARS Web Design and Development Cont.

- Data quality is improved through live edits
 - Respondent entries are edited real-time to prevent incorrect data entry
 - Example: PO Boxes are not valid as a physical location, and edits prevent a respondent from entering one in that field
 - Respondents cannot move on to the next page without answering all questions
 - Reduces need for follow-up with respondents
- Enhanced Industry Classification Verification
 - Form provides only the current main business activity and a small space for corrections
 - ARS Web allows respondents to "self-code" by searching for key-words and selecting new main business activity
 - Respondents is also asked to give a narrative description in addition to the key-word search



Managing Workload with Large Scale Collection

- Due to the large scale of the ARS, the website needed to be designed with respondent usability in mind.
 - If even a small percent of the approximately one million eligible respondents needed assistance with the site, the helpdesk would be inundated and require increased staffing and costs.
- Significant dynamic help text included to reduce confusion and questions
 - Question mark next to each field, when cursor is hovered over this; help, definitions of terms, etc. displayed
 - Provides respondent with more information than can be found on the form
 - Resulted in fewer than 500 helpdesk questions during the first year of operation



Testing and Implementation

FY 2012

- 22 States participated in a pilot
 - ARS Web pilot conducted during the follow-up mailing to the ARS
 - Over 12,000 responses were received over the web
 - No negative impact observed to overall response rates

FY 2013

- ARS Web expanded to 48 States
 - ARS Web included for all respondents to the survey
 - Over 120,000 responses collected
 - No negative impact to response rates

FY 2014 (to date)

- ARS Web continues in 48 States
 - Over 130,000 responses collected, to date
 - No negative impact to response rates



Sorting ARS Responses for Processing

Responses are sorted to expedite processing and track responses:

Group	Description
0	All pre-printed information was confirmed as correct by the employer
1	Business mailing address and/or physical location address updated
2	County updated
3	Respondent indicated more than one establishment in the State
4	Main business activity updated
5	Updated the main business activity information. Did not indicate whether or not the industry classification was correct.
6	Combination of changes made to the form (Example: Main business activity and county updated)

Response Rate Analysis

September 2012 – July 2013

- ► ARS Web: 176,498 responses
- ► Paper: 400,452 responses
- ARS Web and Paper responses show difference in response type. Particularly in Group 0: No Changes:
 - ► ARS Web: 16.1%
 - ► Paper: 48.7%



Response Rate Analysis

Figu Annual Refiling Survey Response Rates by Sort Group



SOURCES: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, and authors' calculations.

Future Development Ideas

- Use email, rather than paper for ARS re-solicitation
- Remove postage paid envelope from form packets
- Examine possibility of only offering web response



ARS Web for Multis

Kelly Quinn, Economist Quarterly Census of Employment and Wages Data Collection Branch



Annual Refiling for Multis

- Respondents with multiple locations in a State will have numerous addresses and possibly numerous economic activities to verify or update.
- NVM forms come in a packet, which can get very large for employers with many locations
- Large packets can be burdensome and have lower response rates.



Multiple Worksite Report

- Employers with multiple locations in a State file the MWR quarterly with their employment and wage data by location.
- Can file via paper form or MWR Web.
- NVMWeb is a new enhancement to the ARS program that was developed to reduce respondent burden and postage costs by coordinating with current MWRWeb respondents to verify their industry information on the web.



Combining MWR and NVM

- Because MWR and NVM collect information from the same employers, it would prove beneficial to combine the collection efforts.
- Combining paper collection would be difficult
 2 different print contracts
 - Both forms are long already
 - 2 different collection cycles
 - MWR:Quarterly
 - NVM: Annually (3-year cycle)



Solution: NVM added onto MWR Web

NVM Web Design

- Two screens were added to the end of the existing MWR Web system
- Allow respondents to verify the industry for the locations where they just reported employment and wage data.



NVM Web Burden Reduction

- Allow respondents to report their industry verification data while they are already logged into MWR Web to report employment and wage data.
- Locations are identified by address, so respondents are verifying their address on both the MWR and NVM forms.
- Since they already verify on MWR Web, the NVM Web can skip this question.
- Respondents who "verify" that their information is correct, can be loaded into the systems on a file. No manual review or data entry.



NVM Web Welcome Screen

Multiple Worksite Report

Help | Logout

Welcome to the Industry Verification Portion of the Multiple Worksite Report

Thank you for submitting your Multiple Worksite Report data. We now ask that you complete the Industry Verification portion. Once your Industry Verification is complete, you will be taken to your Multiple Worksite Report summary page.

Every three years, we ask you to verify the economic activity of your businesses. This year, we are implementing a new initiative to save tax dollars and giving you the opportunity to go paperless. The information we collect will be used for statistical and Unemployment Insurance program purposes and other purposes in accordance with law. See http://www.bls.gov/cew/wf for more information on how the data is used in different States. Please take a moment to complete the following Industry Verification Form(s).

Time of Completion

Time of completion is estimated to vary from 5 to 45 minutes with an average of 15 minutes per account. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this information. If you have any comments regarding these estimates, or any other aspect of this survey, please contact your State Agency which is located at the bottom of your select UI page(s). You are not required to respond to the collection of information unless it displays a currently valid O.M.B. number. The O.M.B. control number for this survey is 1220-0032.

1 of 1 of your Unemployment Insurance	e account number(s) have been selected for this survey.
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	State	UI Account Number	Legal Name	Industry Verification Completed?
Select	UA	0123456789	ABC Corporation	No



Your Industry Verification data are not yet submitted, you will be able to submit your data once all of your Unemployment Insurance accounts listed above are complete.

If you have questions or comments please send e-mail to: mwr.helpdesk@bls.gov

Verify and Update Industry

Multiple Worksite Report

UI Account Number: 0123456789 State: Alabama Legal Name: ABC Corporation Industry Verification Form, BLS 3023-NVM Form Approved, O.M.B. No. 1220-0032 Alabama DEPARTMENT OF LABOR AND INDUSTRY In cooperation with U.S. Department of Labor

The Industry Verification is MANDATORY in Alabama

This report is mandatory under Administrative Rule No. 480-6-1-.01, and is authorized by law, 29 U.S.C. 2. Your cooperation is needed to make the results of this survey complete, accurate, and timely. The information collected on this form by the Bureau of Labor Statistics and the State agencies cooperating in its statistical programs will be used for statistical and Unemployment Insurance program purposes, and other purposes in accordance with law.

Please verify the description of your main business activities, goods, products, or services in this State. If the information displayed below is correct, please check "YES". If it is incorrect, please check "NO" and type your business description in the box. When you have reviewed each worksite, please hit "Continue" in order to submit your data.

Tip:To sort worksites, click on a column header. The first click will sort ascending (▲), and the next click will sort descending (▼).

Worksite Address	Worksite Description	Main Business Activity	Yes (Select All)	No (Select All)
	2	Outdoor power equipment stores <u>Click here for full description</u>	۲	c
1	1	Outdoor power equipment stores <u>Click here for full description</u> Please type your business description here. Character limit is 255.	o	•

I do not have sufficient information to fill out this form. Please mail a paper copy to this organization.



Full Industry Description Link

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Multiple Worksite Report

UI Account Number: 0123456789 State: Alabama Legal Name: ABC Corporation Industry Verification Form, BLS 3023-NVM Form Approved, O.M.B. No. 1220-0032

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Outdoor power equipment stores

(1) In-store retail sales of new outdoor power equipment; OR

(2) In-store retail sales of new outdoor power equipment in combination with repairing the

equipment and selling replacement parts.

DOES NOT INCLUDE repairing outdoor power equipment without retail sales of this equipment. DOES NOT INCLUDE electronic home shopping, mail-order, or other non-store retail sales of outdoor power equipment.

444210

OK

I do not have sufficient information to fill out this form. Please mail a paper copy to this organization.



Review and Submit Data

Multiple Worksite Report

Help | Logout

Summary Page

Your data are NOT yet submitted.

You can use this page to review your information and edit or print if necessary. Please click on the "View" button to view the data entered for each Unemployment Insurance account. You must click the "Submit Data to BLS" arrow to complete your form. Once you submit this page, you will not be able to log back in to edit or print your data.

Details		State	UI Account Number	Legal Name	Print All Accounts
View	Edit	Alabama	0123456789	ABC Corporation	



If you have questions or comments please send e-mail to: mwr.helpdesk@bls.gov

Version: 4.0 URL: https://sleddev92.bls.gov:83/MWRweb/content/industryVerificationSummary.jsp

NVM Web Pilot

- 2012 4th Quarter MWR Collection: January-February 2013
- NVM responses collected for 2013 ARS 2nd mailing
- Included 16 Volunteer States
- This pilot only included the UI accounts that did not respond to 2013 CARS 1st mailing, and were active MWRWeb accounts.
- Successful response rate: 84% of NVM eligible accounts that reported MWR, also reported NVM



Improvement from low response rates on paper forms

NVM Web Pilot

- BLS provided these responses to States in one transmittal prior to the second ARS mailing
- States uploaded their NVMweb Response Files and processed the responses via Excel spreadsheets.
- States provided feedback about fields that should be removed or added to the spreadsheets for full implementation.



Feedback provided on response files

NVM Web Full Implementation

- 2013 2nd Quarter MWR Web Collection: Jul-Aug 2013
- Included all States
- NVM responses collected for 2014 ARS 1st mailing
- Due to positive feedback, NVMWeb was kept open an extra quarter during 3-Q 2013 MWRWeb collection



 All NVMWeb responses received during 2nd and 3rd quarter eliminated NVM paper forms.

NVM Web Results

NVM Web Responses	12,607
No Changes to Industry	11,291 (89.56%)
At Least One Change	1,316 (10.44%)

More changes reported on web than paper form (about 3% changes)



NVM Web Cost Reduction

Costs savings on:

- Outgoing postage
- Response postage
- Printing forms, cover letter, envelopes
- Processing for those with no changes

Estimated costs for paper forms:

- Outgoing postage at \$0.55 per form
- Business Return Mailing at \$0.50 per form



What's next?

- Fiscal Year 2014 ARS forms have been mailed, and NVM Web responses excluded
 Over 12,000 forms not mailed
- Full implementation for Fiscal Year 2015 is planned
- Collect NVM Web responses during 2Q 2014 MWR Web collection (July-August 2014)
- Responses received will eliminate forms mailed out for FY 2015 ARS



Overview of the Presentation

1. ARS Web (for <u>Singles</u>)

- Brand new data collection site designed from scratch.
- Collects data for 130,000+ accounts annually

2. NVM on MWR Web (for <u>Multis</u>)

- Combines data collection for two different data collections that are both targeted to multis
- Built NVM capability into existing struction for MWR.

Both web systems have proven to reduce costs and respondent burden while maintaining and improving data quality.





ARS Web or NVM Web



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Bureau of Labor Statistics Division of Administrative Statistics and Labor Turnover Quarterly Census of Employment and Wages Data Collection Branch

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