Web Diary Feasibility Test: Preliminary Findings

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Consumer Expenditure Survey Division/U.S. Census Bureau

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Web Diary Team Overview

Motivation

- To encourage contemporaneous reporting, improve accuracy through access across locations and household members, provide a platform for individual diaries, allow for a multiportal approach, and to improve response rates by offering alternative response modes to the traditional paper diary.

Objective

- To understand the operational issues regarding implementing a web mode for CE and to understand the data quality and response rates associated with web collection.
Presentation Outline

I. Web Diary Logistics
II. Web Diary Instrument
III. Web Diary Materials and Training
IV. Preliminary Results
I. WEB DIARY LOGISTICS
Web Diary Logistics

- Data Collection Period – Jan, Feb, Mar 2013
- Test Closeout – Apr 30, 2013
- Starting Sample Size – 1,300 (Nationwide, less HI/AK)
- FR Workload – Approximately 2-3 extra cases/mo. per FR
Web Diary Logistics

- Separate online WD application (ASD)
- Debriefing Qs (for both R and FR)
- Naming conventions developed for:
  - ASD production input files
  - ASD Web Data output / MCS CAPI Data output
  - NPC Web/CAPI data for Visual Basic keying
Web Diary Logistics

- All research cases are “double placed”
- FRs provide username and password to Respondent via CAPI instrument
- New outcome codes for Web Diary (final disposition)
- Test Limitations
  - English only
  - No Multi-CU HHs or Replacement HHs
  - No Reinterview
- New materials
  - FR Talking Points (FR)
  - User Guide (FR)
Web Diary Flow of Data

- Expenditure Data delivered to DSD from ASD
  - Weekly (every Monday, 12:00am)
  - Cumulative, flat ASCII file

- Expenditure Data delivered from DSD to NPC for keying
  - Weekly, Tuesday afternoon
  - CEPB unduplicates for Case IDs already sent to NPC in prior weeks

- Recall Data delivered from DSD to NPC
  - Monthly, five working days after closeout
  - Converted to same file structure as Expenditure Data for NPC read-in

- NPC delivers keyed expenditure and recall data to DSD
  - DSD merges files and converts to SAS datasets per BLS specification
  - DSD conducts parallel data review and releases data to BLS
II. WEB DIARY INSTRUMENT
Web Diary CAPI Instrument

- Screener Qs for both research and production
  - HM_NET – “Does this household have internet access at home?”
  - EM_ACCTS – “Is this through… (PC, tablet, mobile phone)?”
- Username and Password populated on “placement” screen
- “Web” placed as a fill before “Diary” on respective CAPI screens.
- Identical CAPI instrument used for both research and production cases
Web Diary CAPI Instrument

- Additional interviewer instructions serve as cues for FRs
- In order to facilitate the collection of receipts as well as recalled data, a recall/receipts tab added for final pickup to allow for FR data entry
- Additional outcome codes created to:
  - Separately identify research vs. production cases
  - Prevent additional programming for ROSCO
III. WEB DIARY MATERIALS AND TRAINING
Materials

- Materials (both R and FR)
- Two documents:
  - “Consumer Expenditure Diary Survey User Guide”
  - “FR Talking Points”
The Survey User Guide was designed as a reference guide for R.

The User Guide provided instructions on

- URL for the Web Diary
- Username and Password
- Start date for entering expenses
- Creating a household roster
- Contacting the FR and Regional office with questions and other concerns
Thank you for agreeing to participate in the Consumer Expenditure Survey (CE). We understand that this task takes time; however, your information is very important to us and will be used for many purposes that affect all Americans. Among the most important, it is used to help calculate the Consumer Price Index, or CPI, which is a basic measure of the rate of inflation. For more information about the survey, visit: http://www.bls.gov/cex and http://www.census.gov.

By law (Title 13, U.S. Code), we must keep your information confidential; we use it for statistical purposes only. If you have comments regarding this survey, please send them to: Division of Consumer Expenditure Surveys, 2 Massachusetts Avenue N.E., Room 3685, Washington, DC 20212.

The CE Web Diary can be accessed at: http://respond.census.gov/ced/.

On this screen you enter the names of the people in your household and your survey Start Date.

Your start date is:

Your Household Members:

Please use care: names will appear on your tax return after 18 months of household. All data will be lost.

Please read: instructions are valid only for this survey. All data will be lost.
Consumer Expenditure Diary Survey User Guide

- How and where to enter expenses
  - Food and Drink Away From Home
  - Food and Drink for Home Consumption
  - Clothing, Shoes, Jewelry and Accessories
  - All Other Products and Services
- How to save work and add rows
- How to submit completed Web Diary expenses
# Consumer Expenditure Diary Survey User Guide

![Food and Drink Away from Home](image.png)

<table>
<thead>
<tr>
<th>Meal Type</th>
<th>Description</th>
<th>Where Purchased</th>
<th>Total Cost with tax and tip</th>
<th>Alcohol Included?</th>
<th>Total Alcohol Cost</th>
<th>Date Purchased</th>
<th>Clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>bagel, juice</td>
<td>Employer or School Cafeteria</td>
<td>$2.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td>pizza</td>
<td>Fast Food, Take-out Cafeteria</td>
<td>$5.57</td>
<td></td>
<td></td>
<td>03-14-2011</td>
<td>1</td>
</tr>
<tr>
<td>Snack/Other</td>
<td>coffee</td>
<td>Fast Food, Take-out Cafeteria</td>
<td>$1.35</td>
<td></td>
<td></td>
<td>03-14-2011</td>
<td>1</td>
</tr>
<tr>
<td>Lunch</td>
<td>sandwich, soda</td>
<td>Employer or School Cafeteria</td>
<td>$5.15</td>
<td></td>
<td></td>
<td>03-14-2011</td>
<td>1</td>
</tr>
<tr>
<td>Dinner</td>
<td>chips</td>
<td>Vending Machines or Kitchen</td>
<td>$0.70</td>
<td></td>
<td></td>
<td>03-15-2011</td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td>elem. school lunch - mom</td>
<td>Employer or School Cafeteria</td>
<td>$45.00</td>
<td></td>
<td></td>
<td>03-15-2011</td>
<td></td>
</tr>
<tr>
<td>Snack/Other</td>
<td>soda</td>
<td>Vending Machines or Kitchen</td>
<td>$0.65</td>
<td></td>
<td></td>
<td>03-21-2011</td>
<td></td>
</tr>
<tr>
<td>Dinner</td>
<td>buffet</td>
<td>Full Service Places</td>
<td>$62.23</td>
<td>✓</td>
<td>✓</td>
<td>03-23-2011</td>
<td></td>
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<tr>
<td>Snack/Other</td>
<td>drinks from cash bar</td>
<td>Full Service Places</td>
<td>$15.00</td>
<td>✓</td>
<td>✓</td>
<td>03-23-2011</td>
<td></td>
</tr>
<tr>
<td>Dinner</td>
<td>caterer-Family Reunion</td>
<td>Fast Food, Take-out Cafeteria</td>
<td>$350.00</td>
<td></td>
<td></td>
<td>03-24-2011</td>
<td></td>
</tr>
</tbody>
</table>

**Add Rows** | **Save**
Consumer Expenditure Diary Survey User Guide

- How and where to enter expenses
  - Food and Drink Away From Home
  - Food and Drink for Home Consumption
  - Clothing, Shoes, Jewelry and Accessories
  - All Other Products and Services

- How to save work and add rows

- How to submit completed Web Diary expenses
Consumer Expenditure Diary Survey User Guide

- How and where to enter expenses
  - Food and Drink Away From Home
  - Food and Drink for Home Consumption
  - Clothing, Shoes, Jewelry and Accessories
  - All Other Products and Services
- How to save work and add rows
- How to submit completed Web Diary expenses
Consumer Expenditure Diary Survey User Guide
Consumer Expenditure Diary Survey User Guide

When you navigate from one section of the diary to the next, your purchases will automatically be saved. You may also click Save at the bottom of the page at any time.

At the end of your 2-week record keeping period, you will submit your expenditures using the Submit button at the top of the page. You may still access your web diary after you hit Submit.

If you have any questions, please call:
Regional Office: ________________________________ Telephone: ________________
FR Talking Points

- For the Census FRs, the Web Diary Team created – FR Talking Points
- Similar in nature to the User Guide created for respondents
- The FR Talking Points also reminded FRs to emphasize to respondents which expenses not to record in the Web Diary
- The primary goal of the FR Talking Points was to provide a resource to FRs to thoroughly explain the Web Diary instructions to the respondent
FR Talking Points

Logging in to the Web Diary

Username and Password
Your first login to the CE Web Diary requires a unique secure User name that is assigned to each household in our study.

Enter your Username in the field after "Username" located in the middle of the screen at the Web Diary welcome page. Be sure to enter the Username exactly as it is written since it is case-sensitive. Enter your Password in the field after "Password."

1. (Point out the Username field on the user guide)
2. (Point out the Password field on the user guide)

Note: It will be helpful to bookmark the URL for the CE Web Diary. This will make it easier to access each day as you are entering purchases.

Roster Creation
On this screen you will enter the names of all of the people in your household that don’t have another residence where they usually stay. These names will then appear on the Web Diary data entry page as a reminder of the people to keep in mind when recording purchases for all household members. Note that you only have to do this once and will not be able to change the roster once it is created.
Training - Web Diary VTC

- Video teleconference (VTC) was held at the end of November 2012 for Regional Office staff

- HQ virtual presentation to all Regional Offices
  - Background and Overview of WD Feasibility Test
  - Logistics and CAPI Instrument Changes
  - Walk-through of the Web Instrument
  - Question and Answer session
Training - Web Diary Self-Study

- FR training incorporated into November 2013 Refresher Training
- FRs had 4 hours to review materials (Self-study)
  - Introduction and Summary
  - Web instrument data entry
  - Practice interviews
- Each FR given
  - Unique username and password to log-into diary for independent walk-through
  - Respondent User Guide
  - FR Talking Points
IV. PRELIMINARY RESULTS
Web Diary Preliminary Results

- Help Desk
- Response Rates
- Diary Maintenance
- Training
- Other Issues
Web Diary Operational Issues

- No centralized “help desk” for respondents
  - Respondents were instructed to call (800) # as a direct line to DSD staff
    - General inquiries or surveys questions handled by Regional Office CE staff (or FRs)
    - Other technical issues, comments, or complaints forwarded to FSB via phone or email
    - Calls most often related to username/password issues, log-in after closeout, etc.

- DSD routed all non-password-related technical issues to ASD
  - Both FSB and DSD maintain Web Diary Issues Database for tracking and documentation
Web Diary Sample Performance

- Response Rate – 45.89%
- Production Response Rate – 72.11%
- 631 Completed Diaries
- Ineligible Rate – 48.21%
- Production Ineligible Rate – 22.63%
- Screened Out Cases (no internet access/language barriers) – 321 Cases

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size (diaries)</td>
<td>1,375</td>
<td>100.00%</td>
</tr>
<tr>
<td>Completes (diaries)</td>
<td>631</td>
<td>45.89%</td>
</tr>
<tr>
<td>Refusals (diaries)</td>
<td>744</td>
<td>54.11%</td>
</tr>
</tbody>
</table>
Web Diary Respondent Compliance

- Web Diary Failure-to-login Cases
  - Defined as a placed diary where respondent failed to log into the instrument
  - Failure-to-login Rate - 28.92%
  - Receipt and recall data

- Average Number of Diary Entries per Week
  - Web Diary (not including recall data) – 28.51 mean diary entries per week
  - Production Diary (not including recall data) – 31.60 mean diary entries per week
Web Diary Paradata

- Login Failure Rate – 36.03%
- Mean Time in Instrument – 11.37 Minutes
- Device Information

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Computer (PC)</td>
<td>1,305</td>
<td>82.39%</td>
</tr>
<tr>
<td>Apple Mac</td>
<td>216</td>
<td>13.68%</td>
</tr>
<tr>
<td>Mobile Device</td>
<td>63</td>
<td>3.93%</td>
</tr>
<tr>
<td>Total</td>
<td>1,584</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
# Web Diary Paradata

## Link Usage

<table>
<thead>
<tr>
<th>Item</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itemized Instructions</td>
<td>70</td>
<td>22.01%</td>
</tr>
<tr>
<td>User Guide</td>
<td>65</td>
<td>20.44%</td>
</tr>
<tr>
<td>Instructions</td>
<td>58</td>
<td>18.24%</td>
</tr>
<tr>
<td>About</td>
<td>46</td>
<td>14.47%</td>
</tr>
<tr>
<td>Privacy</td>
<td>32</td>
<td>10.06%</td>
</tr>
<tr>
<td>Burden</td>
<td>25</td>
<td>7.86%</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>6.92%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>248</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Web Diary Debriefing

- **R Cooperation**
  - Difficult for Rs with little computer experience
  - Initial response was positive; however, R became less diligent in the last few days, similar to paper diary
  - “Out-of-sight, Out-of-mind”

- **R Experience**
  - FRs report that Rs probably did not use materials
  - Materials needed to use simpler terms for Rs with limited computer experience
  - Rs reported misplacing materials
  - More motivational language would allow for easier placement
Web Diary Debriefing

- R Experience (cont.)
  - Provide flap for receipts in user guide similar to paper diary
  - Official letter provided by Census describing why the R is being asked to provide their email address
  - Allow four or five day window after the reporting period ends for the R to enter additional expenses that were forgotten during the reporting period
  - Rs frustrated that they had to enter purchase date for each expense
Web Diary Debriefing

FR Experience
- Self-study training inadequate, thought classroom training would have been superior
- Recall and receipts were not handled in an intuitive way
- Difficult to enter receipts and recall data without having access to what was entered by the respondent
- Send the R reminder emails or text messages
- Complete a demonstration of the web diary before the FR leaves
- Let Rs customize their usernames and passwords
Main Issues

**Issues and expected resolutions**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Response Rate</td>
<td>Offer multiple survey modes &amp; improved FR training</td>
</tr>
<tr>
<td>Lower Expenditures and Failure-to-login</td>
<td>Tailored follow-up through paradata monitoring</td>
</tr>
<tr>
<td>Help Desk</td>
<td>Offer dedicated help desk through Census</td>
</tr>
</tbody>
</table>
Input into Individual Diaries Field Test

- Targeted Sampling
- Paradata Monitoring
- Streamlined and Efficient Design
- Straightforward R Materials
- Comprehensive FR Training
- Additional Follow-up Procedures
- Receipt/Recall Procedures
Acronym Definitions

- WD – Web Diary
- FR – Field Representative
- R – Respondent
- CU – Consumer Unit
- HH - Household
- CAPI – Computer-assisted Personal Interviewing
- MCS – Master Control System
- FSB – Financial Surveys Branch
- CEPB – Consumer Expenditure Programming Branch
- DSD – Demographic Surveys Division
- ASD – Application Support Division
- NPC - National Processing Center
- ROSCO – Regional Office Survey Control
Contact Information

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