

Evaluating Web Data Collection in
Two BLS Surveys:
The Consumer Expenditure
Diary Survey

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Consumer Expenditure Diary (CED)

- Household Survey
- Collects data for 2 week period
- Requires respondent to record all expenses in diary form

Paper Diaries

- All data collected on a single paper diary, one per household per week
- Each respondent must record expenses of entire household in diary form
- Diary is collected at end of each week by interviewer and household is given new diary

Individual Diaries

- Currently studying feasibility of having one diary for each household member
- As done in other countries (England & France)
- Create privacy of reporting within a household
- Reduce burden on respondent, everyone responsible for entering their own expenditures

Web Diary

- Including web diary option with the individual diary test
- Respondents will have option of completing the diary on paper or online (or both)
- Possible advantages of web diary:
 - Have additional privacy, with option for passwords
 - Allow respondents to enter expenses from anywhere without carrying diary
 - Increase appeal of diary task to teenage respondents

Feasibility Study

- Testing to see if respondents will choose to use the web based diary
- Giving select number of families both individual paper diaries and information to log on to web diaries
- First step in multi-step process to explore the option of the internet as an alternate mode for the CED

Feasibility Study

- Hope to be able to:
 - determine if web option is of interest to respondents
 - identify types of respondents more likely to select web form over paper
 - obtain respondent feedback on form
 - get initial feel for quality and type of data collected by web form
 - learn about the logistics of having a web diary

Form Development

- Three prototype were developed
- Usability tests were run with 22 participants
- Participants were given two of the three forms (counterbalanced design) and asked to complete a series of tasks on each
- Performance on each was evaluated
- Satisfaction questions were also given

Booklet Style

- Mirrored paper dairy
- Table to enter all purchases

Consumer Expenditure Survey

[Notes](#) | [How do I...?](#) | [Logout](#)

- 1.-Food & Drinks Away from Home
- 2.-Food & Drinks for Home Consumption
- 3.-Clothing, Shoes, Jewelry, and Accessories
- 4.-All Other Products Services, and Expenses
- 5.-Review Diary Entries

Finished with diary

1. Food & Drinks Away from Home

Select one that best describes the type of meal				Please specify briefly	Select one that best describes where you made this purchase				Total Cost with tax & tip	If alcoholic beverages included, check all that apply			Enter the total cost of the alcohol
breakfast	lunch	dinner	snack/other		Fast Food Take-out Delivery Concession	Full Service Places	Vending Machines or Mobile Vendors	Employer or School Cafeteria		wine	beer	other	
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	bagel, juice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	2.79	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	pizza	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	8.75	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	buffet	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	62.23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.00
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Question Style

- Asked questions about each purchase separately
- Radio buttons to select options



Consumer Expenditure Survey

Food & Drinks Away from Home

Record any food and drink purchases made while you were not at home, or those that were delivered to your home. Include food or drink purchases made from fast food places, take out, delivery, restaurants, vending machines, or other places.

Provide a [brief description](#) of the meal:

Provide the [Total Cost](#) with tax & tip of the meal:

1. **Select the category that best describes the [type of meal](#):**

- Breakfast
- Lunch
- Dinner
- Snack/Other

2. **Select the category that best describes where you made this purchase:**

- [Fast Food, Take-out, Delivery, or Concession](#)
- [Full Service Places](#)
- [Vending Machines or Mobile Vendors](#)
- [Employer or School Cafeterias](#)

3. **If [alcoholic beverages](#) were included, select the category the best describes the purchase:**

- wine
- beer
- other

Enter the [total cost of the alcohol](#):

Table Style

- Asked questions about each purchase separately
- Drop down menus to select options



Consumer Expenditure Survey

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Food & Drinks Away from Home

Record any food and drink purchases made while you were not at home, or those that were delivered to your home. Include food or drink purchases made from fast food places, take out, delivery, restaurants, vending machines, or other places.

Description:	<input type="text"/>
Total Cost with tax & tip:	<input type="text"/>
Type of meal:	<input type="text"/>
Where you made this purchase:	<input type="text"/>
Alcoholic beverages purchase:	<input type="checkbox"/> wine <input type="checkbox"/> beer <input type="checkbox"/> other
Total cost of the alcohol:	<input type="text"/>

[Click here to add another item.](#)

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

Version: 1.0

URL: <https://idcfdcx.psb.bls.gov/CEX/content/foodService3.jsp>

Performance Evaluation

- During usability testing performance was evaluated by:
 - Number of errors made on each data entry field
 - Respondents ability to resolve problems
 - Respondents ability to navigate
 - What navigational/help features respondents used
 - How easily and quickly respondents completed tasks

Intermediate Results

- Midway through testing, the booklet style was found to have design flaws that prevented some respondents from navigating through the sections
 - Participants scrolled down past the tabs to see the entry fields on the booklet style
 - Didn't scroll back up, never realized that there was more than one section

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Discuss

Address <https://idcfdcx.psb.bls.gov/CEX/updateDaysList.do> Go Links

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Finished with diary

1. Food & Drinks Away from Home

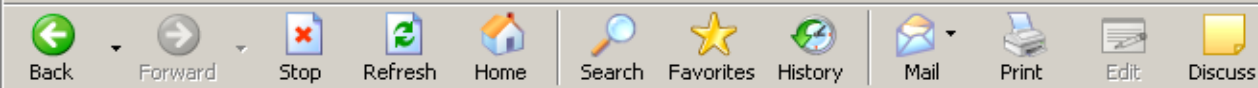
Select one that best describes the type of meal				Please specify briefly	Select one that best describes where you made this purchase				Total Cost with tax & tip	If alcoholic beverages included, check all that apply			Enter the total cost of the alcohol
breakfast	lunch	dinner	snack/other		Fast Food Take-out Delivery Concession	Full Service Places	Vending Machines or Mobile Vendors	Employer or School Cafeteria		wine	beer	other	
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Prototype Selection

- After usability testing, results were analyzed and a prototype was selected
- Few differences between prototypes
- Participants had slightly fewer problems with the table style
 - Problems may not have been to the prototype:
 - not seeing error messages or links and having trouble determining how to begin entering purchases
- Participants reported the table style to be easier to enter purchases

Navigation Results

- Starting participants on a data entry page prevented some of them from exploring and learning how to navigate
- Some participants entered all their data on the page they first saw, despite instructions describing the sections and tabs for navigations
- The prototypes were modified so participants started on a neutral page, and were forced to use the navigation features eliminated this problem



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[Finished with diary](#)

Instructions

Next Steps

- Additional work is being done to finalize instrument
- Data collection is scheduled to begin in April
- Results will inform the CE Survey Program as to the feasibility of having a web based diary in the field

Comments? Questions?

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