

# Developing a Mobile-Optimized Web Instrument for the Consumer Expenditure Diary Survey

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Federal CASIC Workshops  
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# Background

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- Exploring various technology possibilities:
  - ▶ **March 2010**  
Data Capture Technology Forum (Gemini Conference Team)
  - ▶ **March 2011**  
Data Capture Technologies and Financial Software for Collecting Consumer Expenditure Data Report (Westat)
  - ▶ **October 2012**  
Evaluation of Financial Application Software (BRPD)

# Advantages and Motivations for Using a Mobile Device

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- Increase in smartphone ownership  
( > 50% of adults in the U.S.)
- Convenience and portability
- Individual vs. Household
- Reduced recall through real-time reporting
- Direct data entry by respondents

# Challenges of Using a Mobile Device

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- Small real estate (Maximizing button and text sizes)
- Different devices and operating systems (including different versions within the same brand)
- Different browsers (stock browsers vs. downloaded browsers)
- Different screen settings (e.g. size, portrait vs. landscape)
- Different keyboards and scrolling wheels
- Different user skill levels

# Mobile Optimized Web Option vs. Mobile App

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## Pros

- Doesn't require programming in multiple languages
- Doesn't require user to download
- Doesn't require updates
- More secure

## Cons

- Allows access via personal computer, which may not properly display a mobile-optimized page
- Requires an internet connection which affects access and speed
- Appearance varies across browsers and devices based on individual versions and settings

# Wish List Based on the Evaluation of Existing Apps

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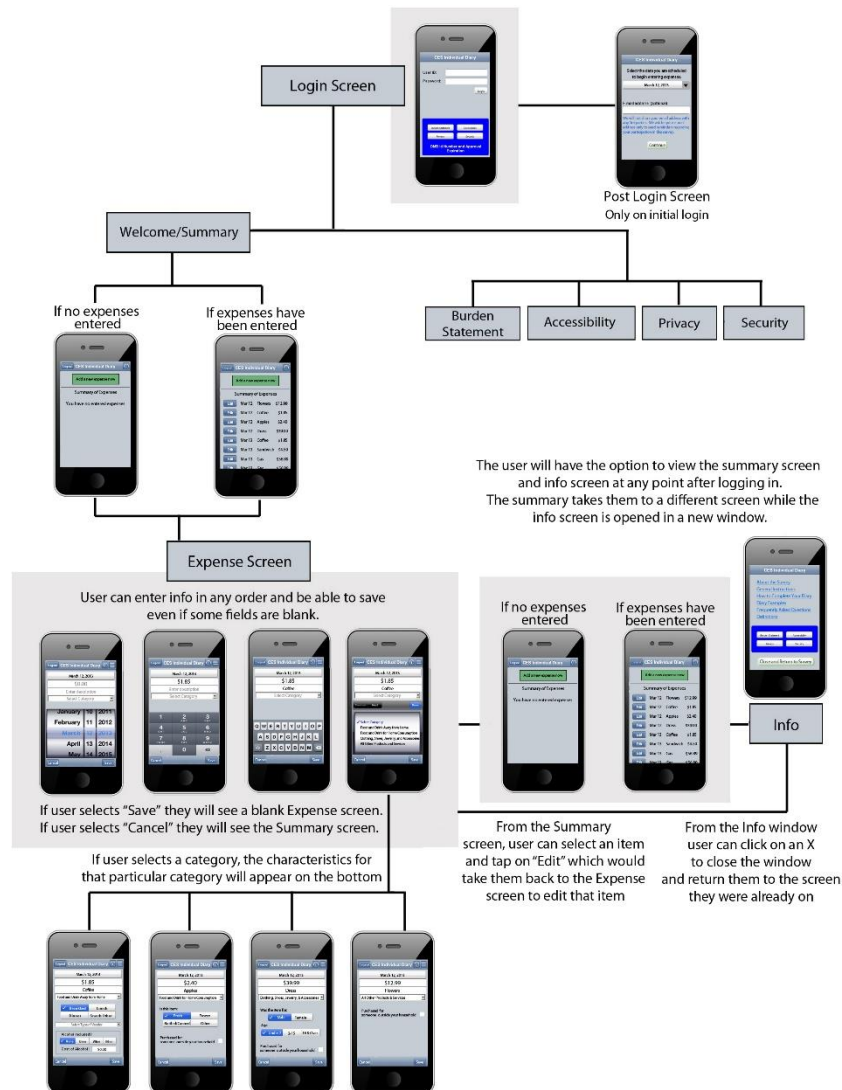
- A smartphone app should be used in conjunction with a Web diary or a paper diary.
- Reminders to enter expenses
- Include “smart” features in the Description field to ease respondent burden (e.g. spell-check, auto-suggest, speech-to-text)

# Wish List Based on the Evaluation of Existing Apps

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- Camera to photograph receipt/record with ability to parse the text to automatically pull out at least some of the information
- Barcode scanner
- Categories to match the paper diary
- Date of Purchase (an easy way for participants to enter in the date of purchase)
- User-friendly “Help” system

# The Design (Flowchart)





# Login Screen




← Login credentials

← Required security information

# Post Login Screen


U.S. DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. CENSUS BUREAU



Acting as a collecting agent for  
U.S. Department of Labor  
Bureau of Labor Statistics

## Your Daily Expenses

Help us learn about the buying habits of people in the United States



When you write down how you spend your money in this diary, you will help us understand more about the products and services that are bought by the people in the United States.

By law (title 13, U.S. Code), we must keep your information confidential and use it for statistical purposes only.

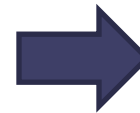
Please record your expenses and purchases for the following period		
	Day	Date
1		
2		
3		
4		
5		
6		
7		

I will return on: \_\_\_\_\_

If you have any questions, please call:

Field representative's name:	Telephone:
Field representative supervisor's name:	Telephone:

FORM CE-801



### CES Individual Diary

Select the date you are scheduled to begin entering expenses:

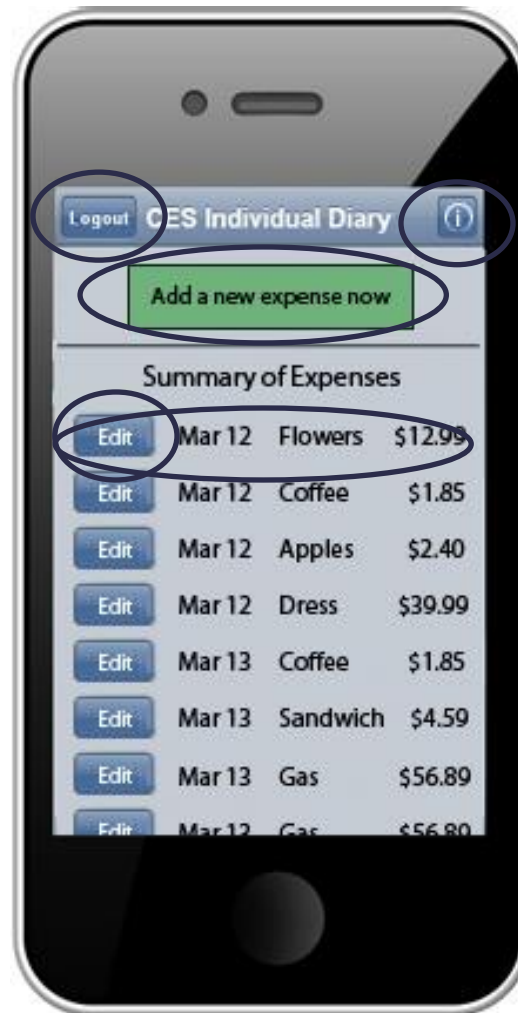
March 12, 2013 ▼

E-mail address: (optional)

We will not share your email address with any 3rd parties. We ask for your e-mail address only to send reminders regarding your participation in this survey.

Continue

# Home/Summary Screen



# Information/Help Screen

**General Instructions**

- Fill out this diary for an entire week, writing down EVERYTHING you and the people on your list spend money on each day - the products you buy, the services you use, the household expenses you have during the week - no matter how large or small they are.
- We recommend that you record your expenses each day. Think about where you went and what you've done.
- Talk to the people on your list every day to find out how they spent their money.
- Include payments by:
  - Cash
  - Check
  - Food Stamp
  - Credit/Debit Card
  - Automatic Withdrawal/Payroll Deduction
- Keep receipts and other records if paid for. Use the pocket at the back. Some record types include:
  - Receipts
  - Utility Bills
  - Bus
  - Train
- Include the following:
  - Expenses
  - Business
  - Sales tax
  - Part 2 - C
  - Part 2 - D
  - Part 4 - A

**How to Fill Out Your Diary**

The diary is divided into 7 days and each day is divided into 4 parts. Enter each item in the appropriate part for each day.

Enter each item within each day of the diary:

- Like Away from Home
- Like Your Usual that best describes the type of meal and exactly how you purchased
- Other other similar

**Examples**  
(continued on other side)

**1. Food and Drinks Away from Home**

- Fast food, take-out, delivery, concession (you EAT/DRINK you eat/drink)
- Full Service Places (you pay for the food and the service)
- Fooding Machines or Mobile Vendors (fruit machines, carts, & stands that move from place to place)
- Employer and School Cafeterias (includes elementary school cafeterias)

**2. Food and Drinks for Home Consumption**

- Dairy Products (milk, cream, condensed milk, yogurt, other milk, etc.)
- Bakery Products (cakes, cookies, frozen coffee, white bread, other bread, etc.)
- Beef (steaks, ground beef, roasts & other roasts)
- Pork (loins, ham, pork chops, sausage, etc.)
- Poultry (chicken parts, duck, whole turkey, etc.)
- Other Meats (beef, lamb, pork, veal, etc.)
- Fish & Seafood (fish, shellfish, etc.)
- Eggs, Taps & Dressings (fried shrimp, shrimp, whigs, etc.)
- Pasta & Dairy Products (dollar, cream, cheese, cream, sour milk, condensed milk, etc.)
- Fruits & Fruit Juices (apples, bananas, cantaloupe, orange juice, etc.)
- Sugar, Sugar Substitutes & Sweetens (artificial sweeteners, candy gum, jams, jellies, etc.)
- Vegetables & Vegetable Juices (beans, corn, peas, potatoes, tomatoes, etc.)
- Other Food Items (breads, fruit, and nuts, liquor to governmental items, coffee, seasonings, snack foods, cereals, frozen pizza, etc.)
- Non-Alcoholic Beverages (soft drinks, bottled water, iced tea, other carbonated beverages, fruit-flavored beverages, instant & ground coffee, tea, etc.)
- Alcoholic Beverages (beer, maltbeers, hard liquor, wine, etc.)
- Food & Beverages Purchased as Gifts for a meal on your list (party, dress, hot meals, etc.)

**3. Clothing, Shoes, Jewelry, and Accessories**

- Casual, Sportswear, Formal (dress, pants, suit, suit accessories, etc.)
- Undergarments & Sleep clothes (lingerie, pajamas, socks, etc.)
- Outerwear (Wool, Suede, Cashmere) (coat, parka, uniform, windbreaker, etc.)
- Shoes (leather, dress, sandals, slippers, sneakers, etc.)
- Sportswear (Clothes & Sports) (shorts, jeans, pants, all-terrain, team uniforms, etc.)
- Jewelry, Accessories, and Beauty Items (diamond, necklace, watch, ring, dress, umbrella, etc.)

(continued on other side)

**Frequently Asked Questions**  
(continued on other side)

**1. How detailed should my descriptions be?**  
Refer to page 4.7 for examples of the level of detail needed in each part. Do not use brand names.

**2. How should I record multiple quantities?**  
If the items are identical, you can combine them on the same line and enter the total cost of all the items. See examples on pages 3 and 5.

**3. How should I record pre-payments such as a highway fare card?**  
Record the expense when you pay for it, not when you use it.

**4. How should I record credit card purchases?**  
Record the individual expense on the day that you use your credit card to pay for something, not on the day you pay your entire credit card bill.

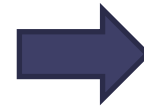
**5. Should I record automatic deductions that are taken from my paycheck or bank account?**  
Yes, record automatic deductions (such as health insurance premiums taken out of your account or payroll) only if they are deducted that week. Write them in the section called All Other Products, Services, and Expenses (Part 4).

**6. Should I record typical monthly bills?**  
Yes, record typical monthly bills only if you pay them during the week that you have the diary. Write them in the section called All Other Products, Services, and Expenses (Part 4).

**7. What should I do when I use coupons, discount cards, or loyalty cards?**  
Subtract the discount from the original price and write the amount that you paid.

**8. Can I just give you receipts instead of writing the information down?**  
No, we need you to actually write the information in the diary. We encourage you to take your receipts to review them with your field representative at the end of the week. You can use the pocket on the inside of the back cover to store your receipts until you're ready to record your purchases.

**9. How should I record items if I don't know whether it includes tax?**  
Write down the amount paid.  
(continued on other side)



**CES Individual Diary**

[About the Survey](#)

[General Instructions](#)

[How to Complete Your Diary](#)

[Diary Examples](#)

[Frequently Asked Questions](#)

[Definitions](#)

Burden Statement

Accessibility

Privacy

Security

Close and Return to Survey

# Expense Entry Screen

## Date

Day 1 SUN MON TUE WED THU FRI SAT

### 1. Food and Drinks Away from Home

Examples: breakfast buffet, carry-out lunch, dinner & cocktails at restaurant, pizza delivery, Chinese takeout, child's school lunch, beer at happy hour, drinks at bar/nightclub, wine at tavern, croissant from cafe, ice cream from truck, wedding reception caterer, soda from vending machine, hot dog from convenience store, popcorn and soda at movies

Please unfold the LEFT FLAP to see Additional Examples

Mark (X) one that best describes the type of meal	Description (see examples above and on the flap)	Mark (X) one that best describes where you made this purchase				Total Cost with tax & tip	If alcoholic beverages included, mark (X) all that apply		Enter the total cost of the alcohol
		Fast-Food Take-out/Delivery	Full-Service Restaurant	Vending Machines or Mobile Vendors	Employer or School Cafeteria		Beer	Other	
Breakfast		1				1	2		
Lunch		2				2	3		
Dinner		3				3	4		
Snack/After		4				4	5		

101

SUN MON TUE WED THU FRI SAT Day 1

### 2. Food and Drinks for Home Consumption

Examples: eggs, cereal, tea, beer, apple juice, ground beef, chicken parts, fish, whole milk, white bread, coffee, sugar, cooking oil, ground coffee, oranges, carbonated water, lettuce, bacon, whole chicken, baby food, shellfish, pet food

Please unfold the RIGHT FLAP to see Frequently Asked Questions

What did you buy or pay for? (see examples above and on the flap)		Is this item: Mark (X) one				Total Cost without tax	Mark (X) if purchased for someone not on your list
fresh	frozen	canned	other				
1	2	3	4		1		

201

Day 1 SUN MON TUE WED THU FRI SAT

### 3. Clothing, Shoes, Jewelry, and Accessories

Examples: shirt, sweater, pants, suit, dress, shoes, sandals, sneakers, shoe repairs, soccer cleats, tennis uniform, ski boots, gloves, slippers, dance costumes, watch, necklace, belt, pajamas, lingerie, socks, coat, jacket, windbreaker

Please unfold the LEFT FLAP to see Additional Examples

What did you buy or pay for? (see examples above and on the flap)		Total Cost without tax	Was the item for:		Age			Mark (X) if purchased for someone not on your list
			male	female	Under 2	3-16	16 & Over	
		1	2	1	2	3		

301

SUN MON TUE WED THU FRI SAT Day 1

### 4. All Other Products, Services, and Expenses

Examples: cigarettes, gasoline, utility gas bill, prescription drugs, computer telephone, dry clean (portals), DVD rental, bus fare, phone bill, car insurance, brake work, hand soap, dish soap, power tools, paper towels, bath towel, textbooks, cook book, coffee maker, computer cables, cable TV bill, color television

Please unfold the RIGHT FLAP to see Frequently Asked Questions

What did you buy or pay for? (see examples above and on the flap)		Total Cost without tax	Mark (X) if purchased for someone not on your list

401

402





# Expense Entry Screen

## Cost

Day 1 SUN MON TUE WED THU FRI SAT

**1. Food and Drinks Away from Home**

Examples: breakfast buffet, carry-out lunch, dinner & cocktails at restaurant, pizza delivery, Chinese takeout, dinner at restaurant, beer at happy hour, pizza at deli, wine at tavern, croissant from cafe, ice cream from truck, wedding reception caterer, soda from vending machine, hot dog from convenience store, popcorn and soda at movies

Please unfold the LEFT FLAP to see Additional Examples

Mark (X) one that best describes the type of meal: Breakfast, Lunch, Dinner, Snack/After

Description (see examples above and on the flap)

Fast Food Take-out Delivery Concession, Full Service Places, Vending Machines or Mobile Vendors, Employee or School Cafeteria, Total Cost with tax & tip, Alcohol beverage included, Mark (X) all that apply, Enter the total cost of the alcohol

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SUN MON TUE WED THU FRI SAT Day 1

**2. Food and Drinks for Home Consumption**

Examples: eggs, whole milk, sugar, cereal, tea, coffee, beer, liquor, wine, apple juice, tomato juice, carbonated water, ground beef, bacon, whole chicken, baby food, chicken parts, fish, seafood, pet food

Please unfold the RIGHT FLAP to see Frequently Asked Questions

What did you buy or pay for? (see examples above and on the flap)

Is this item: Mark (X) one fresh, frozen, canned, other

Total Cost without tax, Mark (X) if purchased for someone not in your list

---

Day 1 SUN MON TUE WED THU FRI SAT

**3. Clothing, Shoes, Jewelry, and Accessories**

Examples: shirt, sweater, shorts, suit, dress, pants, sandals, sneakers, shoe repairs, soccer cleats, tennis uniform, ski boots, gloves, slippers, dance costumes, watch, rockade, belt, pajamas, lingerie, socks, coat, jacket, windbreaker

Please unfold the LEFT FLAP to see Additional Examples

What did you buy or pay for? (see examples above and on the flap)

Total Cost without tax, Was the item for: Male, Female, Age: Under 2, 2-16, 16 & Over, Mark (X) if purchased for someone not on your list

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SUN MON TUE WED THU FRI SAT Day 1

**4. All Other Products, Services, and Expenses**

Examples: cigarettes, gasoline, utility gas bill, prescription drugs, wireless telephone, dry clean (portals), bus fare, movie tickets, DVD rentals, bus fare, phone bill, car insurance, brake work, hand soap, dish soap, power tools, paper towels, bath towel, coffee book, CD/DVD, computer cables, CD/DVD, color television

Please unfold the RIGHT FLAP to see Frequently Asked Questions

What did you buy or pay for? (see examples above and on the flap)

Total Cost without tax, Mark (X) if purchased for someone not in your list



# Expense Entry Screen Description

Day 1 SUN MON TUE WED THU FRI SAT

## 1. Food and Drinks Away from Home

Examples: breakfast buffet, carry-out lunch, dinner & cocktails at restaurant, pizza delivery, Chinese takeout, chef's school lunch, beer at happy hour, prizes at barge, wine at tavern, croissant from cafe, ice cream from truck, wedding reception caterer, soda from vending machine, hot dog from convenience store, popcorn and soda at movies

Please unfold the LEFT FLAP to see Additional Examples

Mark (X) one that best describes the type of meal	Description (see examples above and on the flap)	Mark (X) one that best describes where you made this purchase			Total Cost with tax & tip	If alcoholic beverages included, mark (X) all that apply			Enter the total cost of the alcohol	
		Fast Food Take-out Delivery Concession	Full Service Places	Vending Machines or Mobile Vendors		Employer or School Cafeteria	beer	wine		other
Breakfast 1 2 3 4		1	2	3	1	2	3	1	2	3
Lunch 1 2 3 4		1	2	3	1	2	3	1	2	3
Dinner 1 2 3 4		1	2	3	1	2	3	1	2	3

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SUN MON TUE WED THU FRI SAT Day 1

## 2. Food and Drinks for Home Consumption

Examples: eggs, cereal, tea, beer, apple juice, ground beef, chicken parts, fish, whole milk, white bread, coffee, cooking oil, sugar, ground coffee, orange juice, tomato juice, carbonated water, lettuce, bacon, whole chicken, baby food, shellfish, pet food

Please unfold the RIGHT FLAP to see Frequently Asked Questions

What did you buy or pay for? (see examples above and on the flap)		Is this item: Mark (X) one				Total Cost without tax	Mark (X) if purchased for someone not on your list
		fresh	frozen	boxed/canned	other		
1		1	2	3	4	1	

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Day 1 SUN MON TUE WED THU FRI SAT

## 3. Clothing, Shoes, Jewelry, and Accessories

Examples: shirt, sweater, shorts, suit, dress, pants, sandals, sneakers, shoe repairs, soccer cleats, tennis uniform, ski boots, gloves, slippers, dance costume, watch, necklace, jewelry, pajamas, lingerie, socks, coat, jacket, windbreaker

Please unfold the LEFT FLAP to see Additional Examples

What did you buy or pay for? (see examples above and on the flap)		Total Cost without tax	Was the item for:		Age			Mark (X) if purchased for someone not on your list
			male	female	Under 2	2-16	16 & Over	
1		1	2	1	2	3		

---

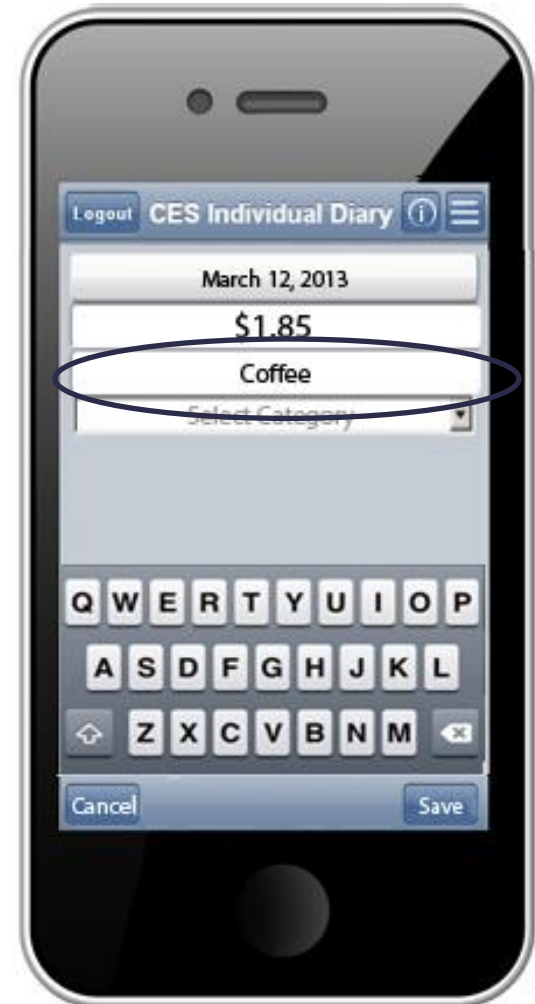
SUN MON TUE WED THU FRI SAT Day 1

## 4. All Other Products, Services, and Expenses

Examples: cigarettes, gasoline, utility gas bill, prescription drugs, car insurance, bus fare, movie tickets, DVD rentals, bus fare, phone bill, car insurance, brake work, hand soap, dish soap, power tools, paper towels, bath towel, coffee, books, computer cables, cable TV bill, color television

Please unfold the RIGHT FLAP to see Frequently Asked Questions

What did you buy or pay for? (see examples above and on the flap)		Total Cost without tax	Mark (X) if purchased for someone not on your list
1			



# Expense Entry Screen

## Category

Day 1 SUN MON TUE WED THU FRI SAT

**1. Food and Drinks Away from Home**

Examples: breakfast buffet, carry-out lunch, dinner & cocktails at restaurant, pizza delivery, cheese takeout, chef's school lunch, beer at happy hour, prizes at barge, wine at tavern, croissant from cafe, ice cream from truck, wedding reception caterer, soda from vending machine, hot dog from convenience store, popcorn and soda at movies

Please unfold the LEFT FLAP to see Additional Examples

Mark (X) one that best describes the type of meal	Description (see examples above and on the flap)	Mark (X) one that best describes where you made this purchase				Total Cost with tax & tip	if alcoholic beverages included, mark (X) all that apply		Enter the total cost of the alcohol
		Fast Food Take-out Delivery Concession	Full Service Places	Vending Machines or Mobile Vendors	Employer or School Cafeteria		beer	other	
Breakfast		1	2	3	4	1	2	3	
Lunch		1	2	3	4	1	2	3	
Dinner		1	2	3	4	1	2	3	
snack/other		1	2	3	4	1	2	3	

101

SUN MON TUE WED THU FRI SAT Day 1

**2. Food and Drinks for Home Consumption**

Examples: eggs, cereal, tea, beer, apple juice, ground beef, chicken parts, fish, whole milk, white bread, coffee, sugar, cooking oil, ground coffee, cranberry, tomato juice, carbonated water, lettuce, bacon, whole chicken, baby food, sheafish, pet food

Please unfold the RIGHT FLAP to see Frequently Asked Questions

What did you buy or pay for? (see examples above and on the flap)		Is this item: Mark (X) one				Total Cost without tax	Mark (X) if purchased for someone not on your list
		fresh	frozen	boxed/canned	other		
1		1	2	3	4	1	
2		1	2	3	4	1	
3		1	2	3	4	1	
4		1	2	3	4	1	

201

202

203

204

206

Day 1 SUN MON TUE WED THU FRI SAT

**3. Clothing, Shoes, Jewelry, and Accessories**

Examples: sweater, dress, sneakers, team uniform, slippers, necklace, lingerie, jacket, shorts, pants, shoe repairs, ski boots, dance costume, belt, socks, windbreaker

Please unfold the LEFT FLAP to see Additional Examples

What did you buy or pay for? (see examples above and on the flap)		Total Cost without tax	Was the item for:		Age			Mark (X) if purchased for someone not on your list
			male	female	Under 2	3-16	16 & Over	
1		1	2	1	2	3		
2		1	2	1	2	3		
3		1	2	1	2	3		
4		1	2	1	2	3		

301

302

303

304

306

SUN MON TUE WED THU FRI SAT Day 1

**4. All Other Products, Services, and Expenses**

Examples: gasoline, cordless telephone, DVD rental, car insurance, dish soap, bath towel, cook book, cable TV bill, utility gas bill, dry clean (outings), bus fare, car wash, power tools, coffee maker, coffee time, color television, for cables

Please unfold the RIGHT FLAP to see Frequently Asked Questions

What did you buy or pay for? (see examples above and on the flap)		Total Cost without tax	Mark (X) if purchased for someone not on your list
1			
2		1	
3		1	
4		1	

401

402





# Expense Entry Screen

## Food and Drink Away from Home

Day 1	SUN	MON	TUE	WED	THU	FRI	SAT	
<b>1. Food and Drinks Away from Home</b>								
<i>Examples:</i> breakfast buffet, carry-out lunch, dinner & cocktails at restaurant, pizza delivery, Chinese takeout, child's school lunch, beer at happy hour, pretzels at ballgame, wine at tavern, croissant from cafe, ice cream from truck, wedding reception caterer, soda from vending machine, hot dog from convenience store, popcorn and soda at movies.								
Please unfold the LEFT FLAP to see Additional Examples								
Mark (X) one that best describes the type of meal <input type="checkbox"/> breakfast <input type="checkbox"/> lunch <input type="checkbox"/> dinner <input type="checkbox"/> snack/other	Description (see examples above and on the flap)				Mark (X) one that best describes where you made this purchase <input type="checkbox"/> Fast-Food <input type="checkbox"/> Take-out <input type="checkbox"/> Delivery <input type="checkbox"/> Recession <input type="checkbox"/> Full Service <input type="checkbox"/> Places <input type="checkbox"/> Vending <input type="checkbox"/> Machines <input type="checkbox"/> or Mobile <input type="checkbox"/> Vendors <input type="checkbox"/> Employer <input type="checkbox"/> or School <input type="checkbox"/> Cafeteria	Total Cost with tax & tip	If alcoholic beverages included, mark (X) all that apply <input type="checkbox"/> none <input type="checkbox"/> Beer <input type="checkbox"/> Wine <input type="checkbox"/> Other	Enter the total cost of the alcohol
101								
102								
103								
104								



# Expense Entry Screen

## Food and Drink for Home Consumption

	SUN	MON	TUE	WED	THU	FRI	SAT	Day 1																											
<b>2. Food and Drinks for Home Consumption</b>																																			
<i>Examples:</i> <table border="0"> <tr> <td>eggs</td> <td>cereal</td> <td>tea</td> <td>beer</td> <td>apple juice</td> <td>ground beef</td> <td>chicken parts</td> <td>fish</td> <td></td> </tr> <tr> <td>whole milk</td> <td>white bread</td> <td>cola</td> <td>liquor</td> <td>tomato juice</td> <td>bacon</td> <td>whole chicken</td> <td>shellfish</td> <td></td> </tr> <tr> <td>sugar</td> <td>cooking oil</td> <td>ground coffee</td> <td>oranges</td> <td>carbonated water</td> <td>lettuce</td> <td>baby food</td> <td>pet food</td> <td></td> </tr> </table>									eggs	cereal	tea	beer	apple juice	ground beef	chicken parts	fish		whole milk	white bread	cola	liquor	tomato juice	bacon	whole chicken	shellfish		sugar	cooking oil	ground coffee	oranges	carbonated water	lettuce	baby food	pet food	
eggs	cereal	tea	beer	apple juice	ground beef	chicken parts	fish																												
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Please unfold the RIGHT FLAP to see Frequently Asked Questions																																			
What did you buy or pay for? <i>(see examples above and on the flap)</i>	is this item: Mark (X) one				Total Cost without tax			Mark (O) if purchased for someone not on your list																											
	fresh	frozen	bottled/ canned	other																															
201																																			
202																																			
203																																			
204																																			
205																																			
206																																			



Logout CES Individual Diary

March 12, 2013

\$2.40

Apples

Food and Drink for Home Consumption

Is this item:

Fresh  Frozen

Bottled/Canned  Other

Purchased for someone outside your household

Cancel Save

# Expense Entry Screen

## Clothing, Shoes, Jewelry, & Accessories

Day 1	SUN	MON	TUE	WED	THU	FRI	SAT																								
<b>3. Clothing, Shoes, Jewelry, and Accessories</b>																															
<i>Examples:</i> <table border="0"> <tr> <td>shirt</td> <td>suit</td> <td>sandals</td> <td>soccer cleats</td> <td>gloves</td> <td>watch</td> <td>pajamas</td> <td>coat</td> </tr> <tr> <td>sweater</td> <td>dress</td> <td>sneakers</td> <td>team uniform</td> <td>slippers</td> <td>necktie</td> <td>lingerie</td> <td>jacket</td> </tr> <tr> <td>shorts</td> <td>pants</td> <td>shoe repairs</td> <td>ski boots</td> <td>dance costume</td> <td>belt</td> <td>socks</td> <td>windbreaker</td> </tr> </table>								shirt	suit	sandals	soccer cleats	gloves	watch	pajamas	coat	sweater	dress	sneakers	team uniform	slippers	necktie	lingerie	jacket	shorts	pants	shoe repairs	ski boots	dance costume	belt	socks	windbreaker
shirt	suit	sandals	soccer cleats	gloves	watch	pajamas	coat																								
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		male	female	Under 2	2-15	16 & Over																									
301		1	2	1	2	3																									
302		1	2	1	2	3																									
303		1	2	1	2	3																									
304		1	2	1	2	3																									
305		1	2	1	2	3																									



Logout CES Individual Diary

March 12, 2013

\$39.99

Dress

Clothing, Shoes, Jewelry, & Accessories

Was the item for:

Male  Female

Age:

Under 2  2-15  16 & Over

Purchased for someone outside your household

Cancel Save

# Expense Entry Screen

## All Other Products & Services

SUN	MON	TUE	WED	THU	FRI	SAT	Day 1																								
<b>4. All Other Products, Services, and Expenses</b>																															
<i>Examples:</i> <table border="0"> <tr> <td>cigarettes</td> <td>prescription drugs</td> <td>movie tickets</td> <td>phone bill</td> <td>hand soap</td> <td>paper towels</td> <td>textbooks</td> <td>computer cables</td> </tr> <tr> <td>gasoline</td> <td>cordless telephone</td> <td>DVD rental</td> <td>car insurance</td> <td>dish soap</td> <td>bath towel</td> <td>cook book</td> <td>cable TV bill</td> </tr> <tr> <td>utility gas bill</td> <td>dry clean (curtains)</td> <td>bus fare</td> <td>brake work</td> <td>power tools</td> <td>rent</td> <td>airline fares</td> <td>color television</td> </tr> </table>								cigarettes	prescription drugs	movie tickets	phone bill	hand soap	paper towels	textbooks	computer cables	gasoline	cordless telephone	DVD rental	car insurance	dish soap	bath towel	cook book	cable TV bill	utility gas bill	dry clean (curtains)	bus fare	brake work	power tools	rent	airline fares	color television
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Please unfold the RIGHT FLAP to see Frequently Asked Questions																															
What did you buy or pay for? <i>(see examples above and on the flap)</i>						Total Cost without tax	Mark 00 if purchased for someone not on your list																								
401																															
402																															
403																															
404																															
405																															



Logout CES Individual Diary

March 12, 2013

\$12.99

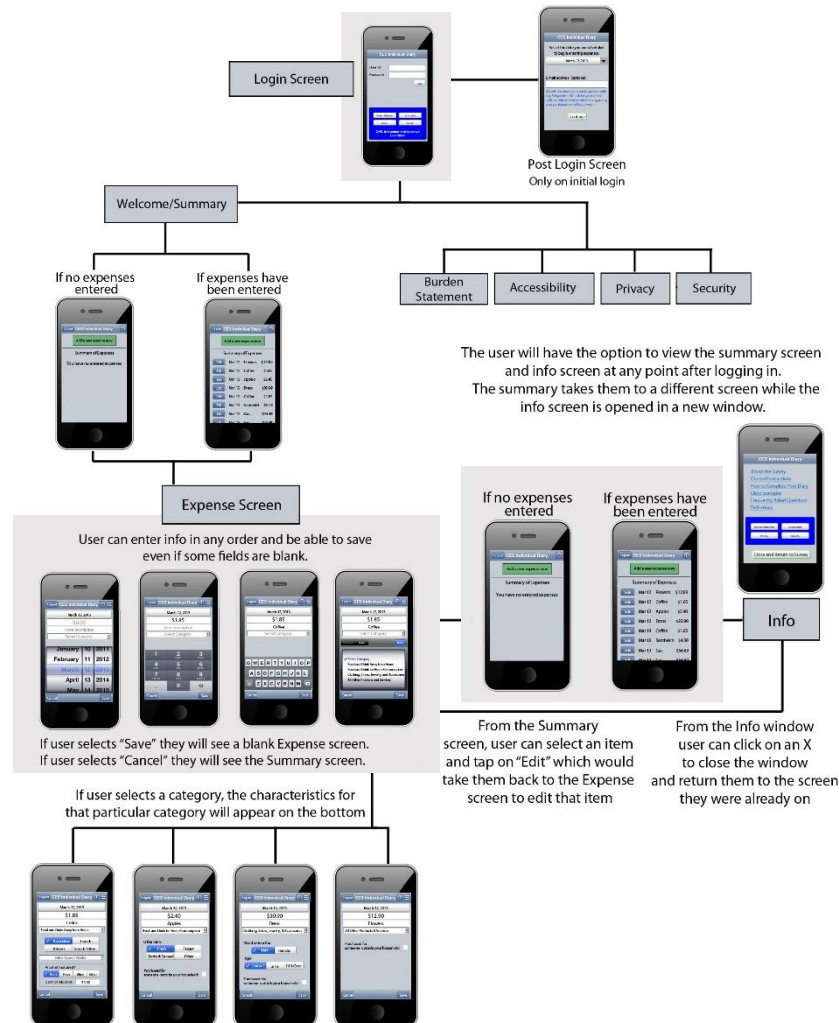
Flowers

All Other Products & Services

Purchased for someone outside your household

Cancel Save

# The Design (Flowchart)



# Summary

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## ■ Selecting the technology

### ▶ Data needs

- Accuracy (real time reporting, individual vs. household, direct data entry)

### ▶ Respondent needs

- User-friendly (convenience, individual vs. household)

## ■ Designing the instrument

### ▶ Data needs

- Accuracy (categories, clear fields, keyboards, help)

### ▶ Respondent needs

- User-friendly (categories, clear fields, keyboards, help, option to provide receipts)

# Contact Information

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**Nhien To**

Economist

Division of Consumer Expenditure Surveys  
Office of Prices and Living Conditions

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