

Considering the Structure of the Consumer Expenditure: Designing Computer Assisted Interviewing



Panel Study of Income Dynamics

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BUREAU OF LABOR STATISTICS
- CONSUMER EXPENDITURE SURVEY
- METHODS WORKSHOP

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Research Setting



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- There is a long history of keeping track of consumer expenditure
- In the current day the challenges are enormous
- Impact of internet access, proliferation of other expenditure **modes** (A)
- Proliferation of goods and service **types**, especially for rich families (B)
- Think of $A \times B$
- Add in fluid household structure!

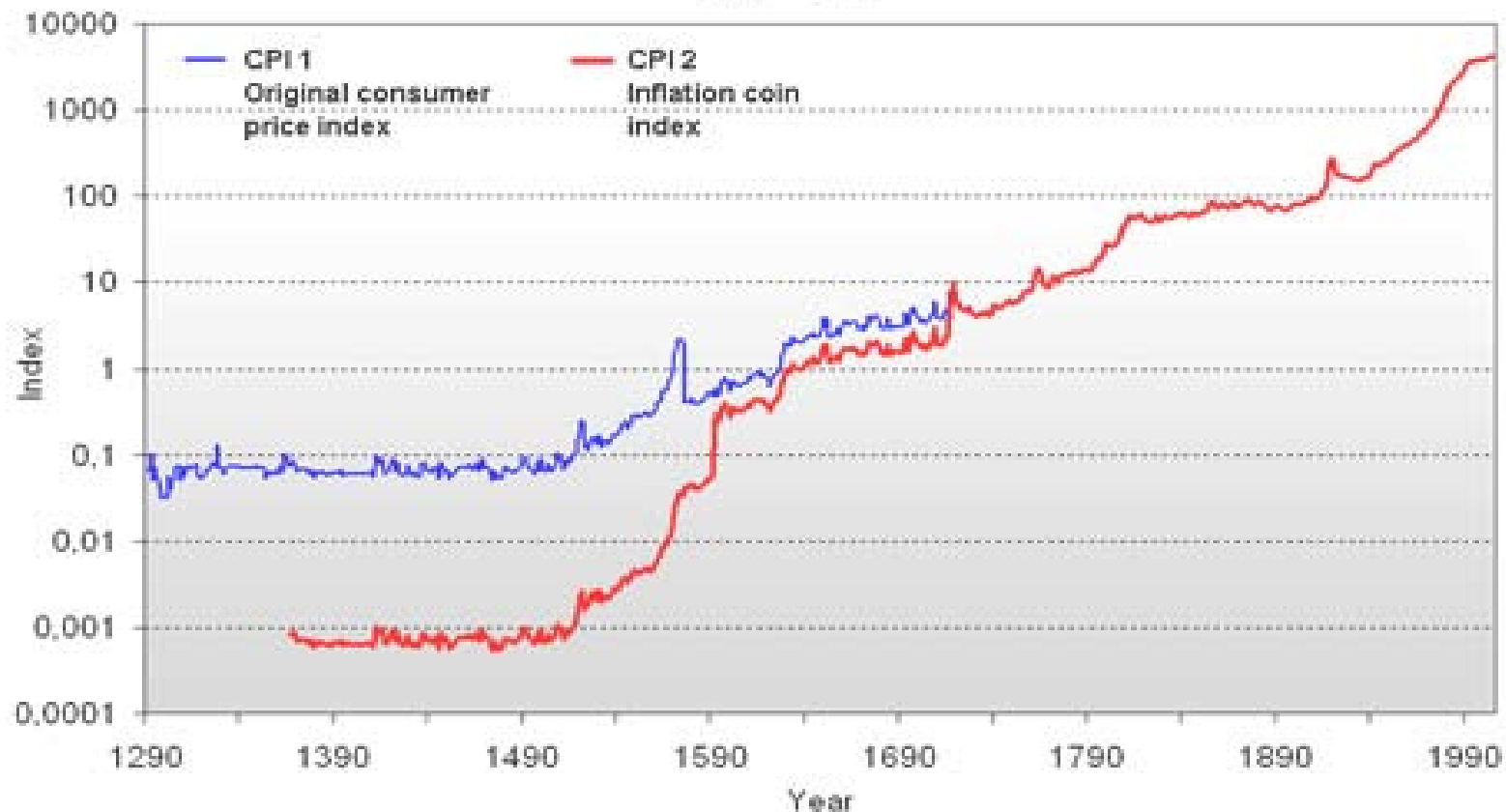
'OLDEN DAYS'



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Sweden, 1290 - 2008

Consumer Price Index
1290 - 2006



DESIGN THEMES



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- Extensive use of interactive GUI
- Use to screen inconsistencies from adding up
- Apply a more 'conversational mode

“Future Directions in Timeline Data Collection and Analysis: Time Dairy and Event History Calendar Methods,” (with Robert F. Belli) in Calendar and Time Diary Methods: Measuring Well-Being in Life Course Research (Sage Publications, 2009)



A Bit More on Design Themes

- Soft checks on consistency
- Hard checks on consistency from 'adding up' such as 52 weeks per year
- GUI works over the phone – tool to help interviewer navigate a less structured 'conversation'
- Can have tabs for interviewer to work back and revisit topics
- An example is our Employment Event History Calendar (EEHC) revised in 2009 and use 2009 and now in 2011.

SAMPLE SCREEN



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Head	2007												2008											
	Winter			Spring			Summer			Fall			Winter			Spring			Summer					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
+ Residence	CLICK this bar to activate Residence domain																							
123 MAIN ST	#																							
+ Job	CLICK this bar to activate Employment domain																							
Wellcome Trust	#																							
Not Just Windows																								
Fast Track																								
Time Away	bar to activate Time Away domain																							
+ Someone else s...																								
+ Own sick																								
+ Vacation																								
+ On Strike																								
+ Temporary Layoff																								
Not Working	CLICK this bar to activate Not Working domain																							
+ 2007 Looking																								
+ 2007 Not looking																								
+ 2008 Looking																								
+ 2008 Not looking																								

Warning

Time Away cells you just entered do not correspond with an employment period, do you want to continue?

Starting Time

Year: Month: Day/3rd of Month:

Ending Time

Year: Month: Day/3rd of Month:

☐ Don't Know When

Reason for Time Away

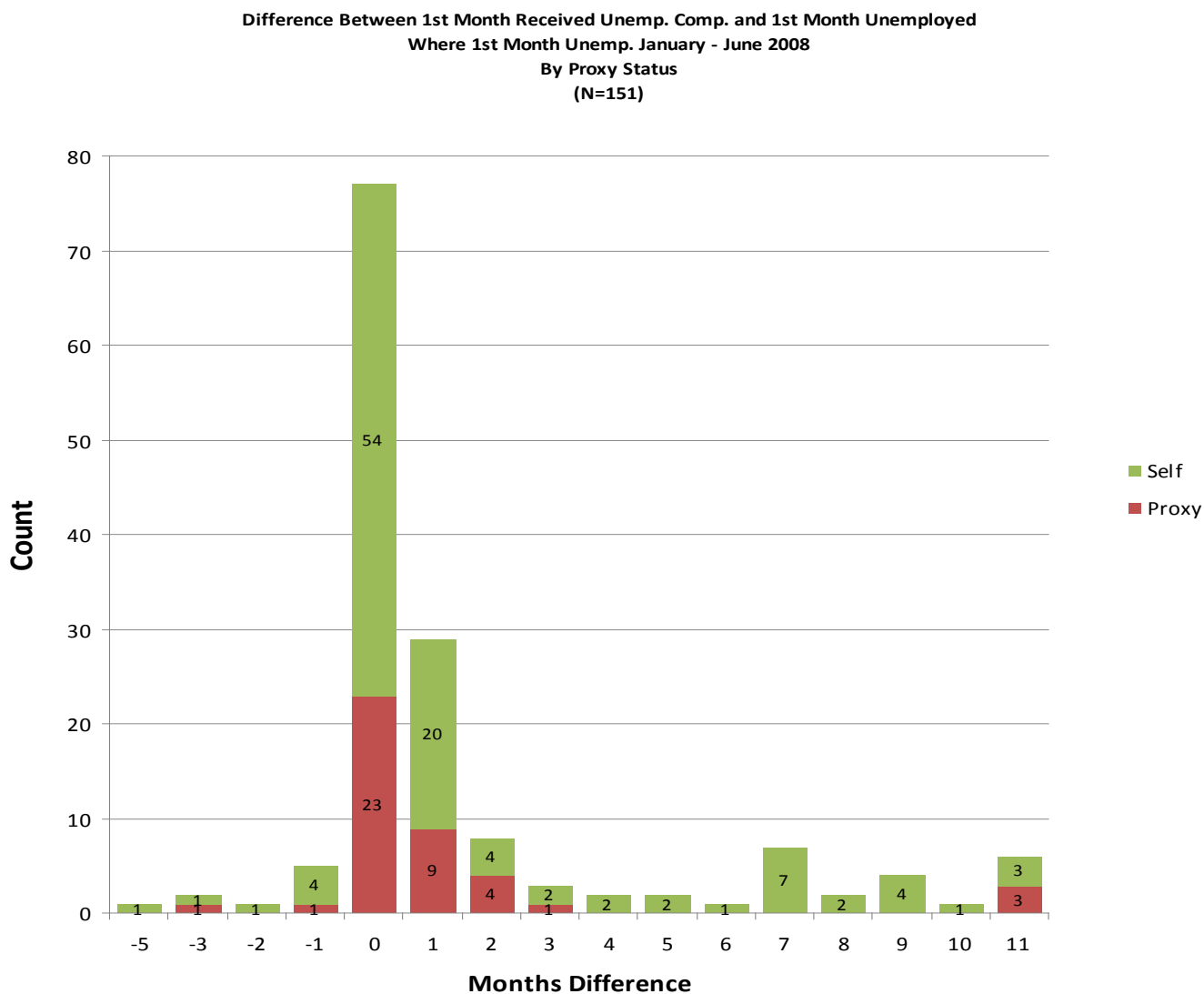
Notes

DOES 'IT' WORK??

Alignment of Unemployment Spells and Receipt of UI



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USE OF GLOBAL CATEGORIES



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- Traditionally used in PSID
- Expanded 1997-2009 to cover most spending domains
- Spread throughout application – not one long block
- Commonly use unfolding brackets

Comparison with Broad CE Categories



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- PSID – CE Comparison

Table 1. Ratio of average consumption expenditures in PSID to Consumer Expenditures Survey			
	1999	2001	2003
Total	0.96	1.02	1.01
Food	1.03	1.08	1.1
Housing	0.94	1	0.97
Transportation	0.86	0.95	0.94
Education	1.16	1.31	1.13
Childcare	1.21	1.25	1.26
Health care	1.04	1.1	1.14

Source: Li, Schoeni, Danziger, Charles (2010), table 3

An Expenditure Periodicity Taxonomy (C)



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Regularity	Frequency	Examples
Somewhat regular	High (weekly)	Food, gasoline
Regular	Medium (monthly)	Rent, utilities, prescription drugs (for some people)
Regular	Low (annual/semiannual)	Property taxes, auto license
Irregular	Varies across households	Clothing, health care copays
Big ticket items	Usually less than once/year	Automobiles, home improvements

Source: "Methodological Innovations in Collecting Spending Data:
The HRS Consumption and Activities Mail Survey," Michael Hurd and Susann Rohwedder.

DIVERSE MODES IN THE ABOVE TABLE (D)



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- Store
- Check
- ETF regular
- ETF sporadic
- Credit/Debit Cards
- Vending machines
- Internet (GPI?)

DIVERSE PURCHASERS (E)



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- Respondent
- Spouse
- Kids PSID CDS has allowances paid to kids
- Stealth credit card purchases? 8+ in 2007 from original CDS I sample
- $A \times B \times C \times D \times E$

Interactive Reconciliation

ALP- CEX

Rohwedder and Hurd, 2010



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	All	45 or Older	65 or Older
ALP	\$41,723	\$43,814	\$40,585
CEX	\$43,596	\$44,147	\$35,706

Strategies and structure



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- First obtain force status of the family members age 15 and older as of the survey data and the prior calendar year. Then a summary measure of labor income from the prior calendar year period.
- Add ins (eg. Inheritance, mortgage refi??) to define an 'annual cash flow available for consumption' or ACFC.

Strategies and structure



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- Go through a set of rather global expenditure categories, using recall periodicities to match the expenditure category.
- Then a reconciliation phase in which the components are added to a total
- Then a single consumption domain (or two) for added detail. Here the starting point could be the categories set out in Appendix B of CPI Requirements of CE

Strategies and structure



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- Mode (s) of Purchase. For the specific domain. Maybe tabs by mode?
- Gifts of goods, 'help from others' in ACFC
- Who purchased? (some aspects of the Japanese expenditure studies?)