A Comparison of CE and PSID Expenditure Data: 1999–2011

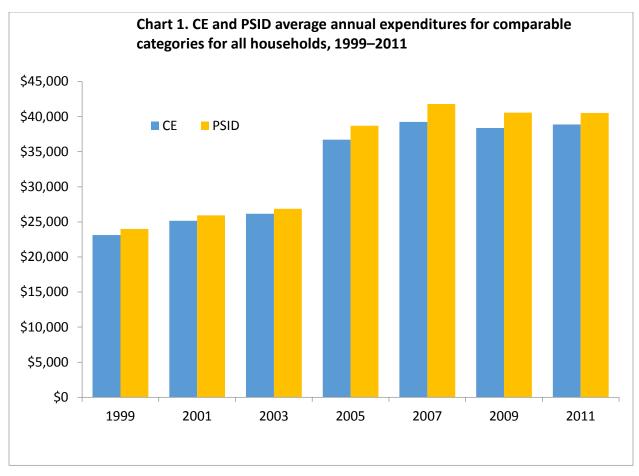
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This report compares selected expenditures from the Consumer Expenditure (CE) Survey of the U.S. Bureau of Labor Statistics and the Panel Study of Income Dynamics (PSID) of the University of Michigan Institute for Social Research. Comparisons of average annual expenditure data from the CE and the PSID were made for every odd-numbered year from 1999 through 2011, the most recent year for which PSID data are available. The data were adjusted to make them comparable because of several differences between the surveys. In many instances the CE expenditure categories did not have a directly comparable PSID counterpart. This problem was especially prevalent before 2005, when the PSID introduced new categories, including clothing, telephone and Internet, household furnishings and repairs, trips, and entertainment expenditures. Categories that either did not exist or for which comparable composite categories could not be created from the CE and the PSID were excluded from this analysis. Adjustments primarily consisted of moving expenditure items between existing categories to better align these categories for comparison. (See Appendix 1 for the categories compared in the CE and the PSID).

Findings

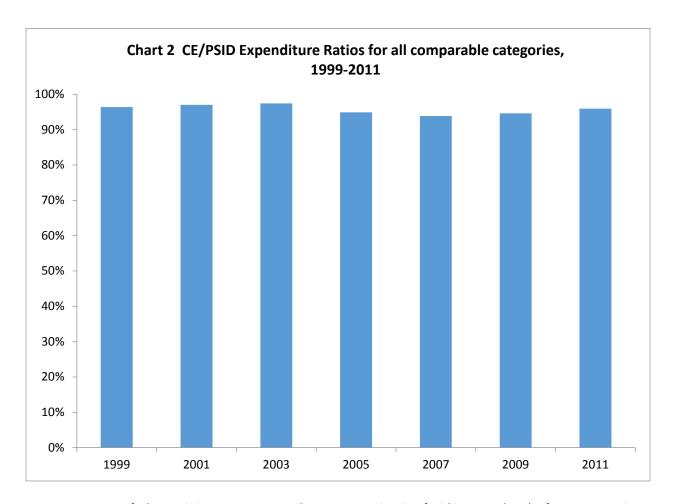
After adjustments for comparability, PSID consumption expenditures for all comparable categories (including food, housing, transportation, healthcare, and entertainment/trips) were consistently higher than the CE for each of the 7 years covered in this analysis. (See chart 1.) (Some CE categories are excluded from the comparison because they are not collected in the PSID.)



Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Survey; University of Michigan, Panel Study of Income Dynamics.

CE/PSID ratios reflected the higher PSID expenditure estimates, ranging from 93.9 percent to 97.4 percent. (See chart 2.) Possible reasons include different question wording and survey methodology between the two surveys. Items were moved from their original categories in the two surveys to try to create the most comparable categories possible. Nonetheless, differences remain in the composition of these comparable categories because of the lack of PSID item detail as compared to the CE. The PSID data were more limited in coverage of expenditure categories than the CE data in the earlier years of the comparison. More extensive comparisons were made for later years (2005, 2007, 2009, and 2011), after the PSID added new categories. The CE/PSID ratios for the last 4 years in the comparisons were lower than the previous 3 years because the PSID added categories that showed higher spending in the

PSID than the CE. These included expenditures on telephone and internet and household furnishings and equipment.



Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Survey; University of Michigan, Panel Study of Income Dynamics.

Detailed Findings

Table 1 shows expenditures and ratios for the total and four major categories, adjusted for comparability. Overall, the PSID shows higher expenditures for food, housing, and transportation, while CE shows higher health care expenditures. The highest CE/PSID ratio was in healthcare in 2011 at 119.6 percent, while transportation had the lowest CE/PSID ratio at 84.1 percent in 2009.

Table 1. CE and PSID average annual expenditures and CE/PSID ratios for total and four major categories (adjusted for comparability) for all households, 1999-2011

		Total			Food			Housing	
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio
1999	23,125	23,989	0.964	5,031	5,407	0.930	8,902	8,780	1.014
2001	25,159	25,936	0.970	5,321	5,851	0.909	9,784	9,976	0.981
2003	26,163	26,857	0.974	5,340	5,945	0.898	10,243	10,300	0.995
2005	36,723	38,711	0.949	5,931	6,367	0.932	15,563	15,773	0.987
2007	39,240	41,810	0.939	6,133	6,665	0.920	17,177	17,592	0.976
2009	38,395	40,574	0.946	6,372	6,560	0.971	17,127	17,394	0.985
2011	38,882	40,533	0.959	6,458	6,737	0.959	16,651	17,260	0.965
	Tran	sportation			Health ca	re			
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio			
1999	6,707	7,143	0.939	1,850	1,629	1.136			
2001	7,324	8,186	0.895	2,082	1,923	1.082			
2003	7,487	8,474	0.884	2,309	2,138	1.080			
2005	7,999	8,953	0.894	2,559	2,464	1.039			
2007	8,324	9,445	0.881	2,735	2,618	1.045			
2009	7,292	8,667	0.841	3,007	2,795	1.076			
2011	7,896	8,971	0.924	3,179	2,657	1.196			

Food. Table 2 shows that total food expenditures in the PSID were consistently 3 to 10 percentage points higher than those in the CE. Spending on food at home in the PSID was 18 to 24 percentage points higher than in the CE. This category makes up the majority of total food expenditures in both surveys. However, CE expenditures were consistently higher for food away from home, ranging from 18 to 33 percentage points higher than the PSID. To make the data more comparable, the PSID categories

of Food Delivered at Home and Food Away from Home were combined to create the Food Away From Home category in the table.

Table 2. CE and PSID average annual expenditures and CE/PSID ratios for total food and components for all households, 1999-2011

	Food			Food at Home			Food Away from Home		
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio
1999	5,031	5,407	0.930	2,915	3,785	0.770	2,116	1,623	1.304
2001	5,321	5,851	0.909	3,086	4,052	0.762	2,235	1,798	1.243
2003	5,340	5,945	0.898	3,129	4,079	0.767	2,211	1,866	1.185
2005	5,931	6,367	0.932	3,297	4,326	0.762	2,634	2,041	1.291
2007	6,133	6,665	0.920	3,465	4,535	0.764	2,668	2,129	1.253
2009	6,372	6,560	0.971	3,753	4,597	0.816	2,619	1,964	1.334
2011	6,458	6,737	0.959	3,838	4,734	0.811	2,620	2,003	1.308

Housing. Expenditures on housing were higher in the PSID in all years except 1999. (See Table 3.)

Several adjustments were required in this category to make the data comparable. For example, the PSID did not collect expenditures on telephone and internet and household furnishings and repairs until 2005. Thus, these expenditures were excluded from the CE estimates for years before 2005. Also, the PSID mortgage calculation includes mortgage principal, interest, and mortgage insurance and does not separate them into components. CE data on mortgage interest and charges and mortgage principal paid on owned property were combined to compare with PSID mortgage data.

Within the housing category, there were differences in six detailed categories shown in Table 3: rent, utilities, property taxes, telephone/internet services, home insurance, and household furnishings and repairs. Expenditures on utilities and home insurance were much higher in the PSID than in the CE, while expenditures on property taxes were consistently higher in the CE. Rental expenditures were higher in

the CE until 2007. For comparability purposes, CE expenditures on telephone services and computer information services were combined into one category. Also, CE household furnishings and equipment were combined with household maintenance/repair services and commodities into one category for comparison with the PSID. Table 3 shows that PSID expenditures for these categories were higher than CE expenditures.

Table 3. CE and PSID average annual expenditures and CE/PSID ratios for total housing and components for all households, 1999-2011

		Housing		Mort	gage at Prir	mary Residence		Rent	
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio
1999	8,902	8,780	1.014	3,914	3,645	1.074	2,027	1,984	1.022
2001	9,784	9,976	0.981	4,259	4,356	0.978	2,134	2,064	1.034
2003	10,243	10,300	0.995	4,519	4,447	1.016	2,179	2,137	1.020
2005	15,563	15,773	0.987	5,409	5,095	1.061	2,345	2,285	1.026
2007	17,177	17,592	0.976	6,169	5,459	1.130	2,602	2,695	0.965
2009	17,127	17,394	0.985	5,805	5,292	1.097	2,860	2,976	0.961
2011	16,651	17,260	0.965	5,192	4,660	1.114	2,905	3,226	0.900
		Utilities			Telephone	/ Internet	Utilities v	vithout Tele	phone/Internet
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio
1999	1,528	1,892	0.807	898	NA	NA	1,528	1,892	0.807
2001	1,852	2,204	0.840	1,004	NA	NA	1,852	2,204	0.840
2003	1,856	2,219	0.836	1,080	NA	NA	1,856	2,219	0.836
2005	3,341	3,886	0.860	1,206	1,707	0.707	1,977	2,179	0.907
2007	3,674	4,310	0.852	1,307	1,902	0.687	2,170	2,408	0.901
2009	3,901	4,654	0.838	1,418	2,046	0.693	2,483	2,608	0.952
2011	4,041	4,831	0.837	1,540	2,108	0.731	2,501	2,723	0.919
	Home	Insurance			Propert	y Taxes	Household Furnishings/Repairs		
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio
1999	234	307	0.763	1,199	953	1.259	2,120	NA	NA
2001	249	337	0.739	1,291	1,015	1.271	2,093	NA	NA
2003	287	398	0.721	1,403	1,099	1.276	2,175	NA	NA
2005	329	456	0.721	1,600	1,253	1.277	2,539	2,798	0.907
2007	340	503	0.676	1,804	1,357	1.330	2,588	3,268	0.792
2009	341	491	0.695	1,917	1,392	1.377	2,303	2,589	0.890
2011	352	507	0.695	1,961	1,373	1.428	2,200	2,663	0.826

Transportation. Table 4 shows CE and PSID expenditures and CE/PSID ratios for transportation. Like most of the other categories, PSID transportation expenditures were higher than CE transportation expenditures. These included much higher expenditures on vehicle insurance and vehicle maintenance and repairs. Vehicle maintenance and repair expenditures for PSID were twice those of CE in most years. Gasoline expenditures were much closer between the two surveys.

Table 4. CE and PSID average annual expenditures and CE/PSID ratios for total transportation and components for all households, 1999-2011

Transportation		Gasoline		Vehicle Insurance			Vehicle Repair					
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio
1999	6,707	6,895	0.973	1,055	973	1.084	756	1,067	0.708	664	1,113	0.596
2001	7,324	8,186	0.895	1,279	1,413	0.905	819	1,162	0.705	662	1,401	0.473
2003	7,487	8,474	0.884	1,333	1,358	0.982	905	1,486	0.609	619	1,316	0.470
2005	7,999	8,953	0.894	2,013	1,862	1.081	913	1,459	0.626	671	1,399	0.480
2007	8,324	9,445	0.881	2,384	2,303	1.035	1,071	1,300	0.824	738	1,398	0.528
2009	7,292	8,667	0.841	1,986	1,865	1.065	1,075	1,371	0.784	733	1,484	0.494
2011	7,896	8,971	0.880	2,655	2,518	1.054	983	1,344	0.731	805	1,552	0.519

Health care. In the health care category, CE expenditures were consistently higher than PSID expenditures. This is largely explained by the CE's higher expenditures on both health insurance and prescription drugs. (See Table 5.) However, expenditures on medical services were higher in the PSID. Two adjustments were made for comparability on health care spending: expenditures on doctors were combined with hospital and nursing home expenditures in the PSID to create a category comparable to medical services in the CE, and expenditures on medical supplies collected in the CE were excluded from total health care.

Table 5. CE and PSID average annual expenditures and CE/PSID ratios for total healthcare and components for all households, 1999-2011

	Healthcare			Health Insurance		Prescription drugs			Medical Services			
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio
1999	1,850	1,619	1.142	923	800	1.154	370	224	1.654	558	596	0.936
2001	2,082	1,923	1.082	1,061	944	1.124	449	299	1.502	573	680	0.843
2003	2,309	2,138	1.080	1,252	1,081	1.158	467	339	1.378	591	718	0.823
2005	2,559	2,464	1.039	1,361	1,261	1.079	521	401	1.299	677	802	0.844
2007	2,735	2,618	1.045	1,545	1,374	1.124	481	376	1.279	709	870	0.815
2009	3,007	2,795	1.076	1,785	1,453	1.228	486	354	1.373	736	988	0.745
2011	3,179	2,657	1.196	1,922	1,383	1.390	489	373	1.311	768	893	0.860

Clothing and education. Table 6 shows that expenditures on clothing were 13 to 26 percentage points higher in the CE than in in the PSID from 2005 to 2011. (The PSID first collected clothing expenditure data in 2005.) PSID expenditures on education have been consistently higher than CE's, but the difference has narrowed over time.

Table 6. CE and PSID average annual expenditures and CE/PSID ratios for clothing and education for all households, 1999-2011

		Clothing		Education				
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio		
1999	1,743	NA	NA	635	1,030	0.617		
2001	1,743	NA	NA	648	1,140	0.568		
2003	1,640	NA	NA	783	1,126	0.695		
2005	1,886	1,646	1.146	940	1,268	0.741		
2007	1,881	1,661	1.133	945	1,422	0.665		
2009	1,725	1,498	1.151	1,068	1,298	0.823		
2011	1,740	1,380	1.261	1,051	1,361	0.772		

Entertainment and trips. Table 7 shows that CE spending on entertainment ranged from 19 to 28 percent higher than the PSID since 2005 (the first year PSID collected expenditures on entertainment). In contrast, PSID expenditures on out-of-town trips have been consistently higher than the CE since 2005. For comparability purposes, entertainment expenditures excluding out-of-town trips were combined with reading expenditures in the CE. Public transportation, lodging, and entertainment expenditures for out-of-town trips were used to create a trips category for the CE.

Table 7. CE and PSID average annual expenditures and CE/PSID ratios for entertainment and trips for all households, 1999-2011

	Eı	ntertainme	nt	Trips			
Year	CE	PSID	CE/PSID Ratio	CE	PSID	CE/PSID Ratio	
1999	962	NA	NA	683	NA	NA	
2001	956	NA	NA	700	NA	NA	
2003	949	NA	NA	665	NA	NA	
2005	1,065	854	1.248	780	1,387	0.562	
2007	1,124	889	1.265	922	1,520	0.606	
2009	1,022	855	1.194	783	1,507	0.519	
2011	955	743	1.285	953	1,424	0.669	

Data description for CE. The CE is an ongoing survey that collects information from a sample of the nation's households on their expenditures, income, and household characteristics¹. The data are collected by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. The survey consists of two components—a quarterly Interview Survey and a weekly Diary Survey—each with its own questionnaire and sample. In the Interview Survey, each consumer unit is interviewed every 3 months, for a total of five interviews. In the Diary Survey, respondents are asked to keep track of all of their purchases made

each day for two consecutive 1-week periods. The Interview Survey yields approximately 28,000 usable interviews annually; the Diary Survey yields about 14,000.

For this report, data from the CE publication tables were used. Data from the Diary and Interview Surveys are integrated to provide a complete accounting of consumer expenditures and income that neither survey is designed to do on its own.² For example, the Diary Survey does not collect data on expenditures for overnight travel or information on reimbursements, whereas the Interview Survey does. Examples of expenditures for which reimbursements are not collected in the Diary Survey are medical care; automobile repair; and construction, repairs, alterations, and maintenance of property. The Interview Survey does not collect detailed food expenditures or expenditures for housekeeping supplies, personal care products, and nonprescription drugs. These items are collected only in the Diary Survey.

Data Description for PSID. The PSID is the world's longest-running national longitudinal household survey. The PSID began in 1968 and was conducted annually through 1997, after which it became a biennial survey. The PSID follows members of households in the original 1968 sample and their descendants as they grow up and form their own families. This feature allows analyses of economic behavior across generations. The sample size has ranged from 4,800 families annually in 1968 to approximately 8,900 in 2011.

The PSID expenditure data used in this article are from a series of questions that were added to the survey in 1999 to collect global and detailed information on healthcare, education, transportation and utilities spending.⁴ For this report, PSID unconditional annual means were compared with adjusted average annual CE expenditures⁵. Additional expenditure questions were incorporated into the survey in

2005 to include spending on home repairs and maintenance, household furnishings, clothing, trips and vacations, and entertainment, which enabled the PSID to cover a majority of household expenditure categories. (See Appendix 2 for examples of these questions.)

Appendix 1. Components of Expenditure Categories Described in Text:

	Years in		Years In
CE	Survey	PSID	Survey
Food	1999-2011	Food	1999-2011
Food at Home	1999-2011	Food at Home	1999-2011
Food Away from Home	1999-2011	Food Away from Home	1999-2011
		Food Delivered	1999-2011
Housing	1999-2011	Housing	1999-2011
Mortgage at Primary Residence	1999-2001	Mortgage	
Rented Dwellings	1999-2011	Rent	1999-2011
Property Tax	1999-2011	Property Tax	1999-2011
Home Insurance	1999-2011	Home Insurance	1999-2011
Utilities	1999-2011	Utilities	1999-2011
Telephone Services	1999-2011	Telephone/Internet	2005-2011
Computer Information Services	1999-2011	Home repairs and Maintenance	2005-2011
Maintenance repairs	1999-2011	Household Furnishings and Equipment	2005-2011
Household furnishings and equipment	1999-2011		
Transportation	1999-2011	Transportation	1999-2011
Vehicle Purchases	1999-2011	Vehicle Loan Payment	1999-2011
Gasoline and Motor Oil	1999-2011	Vehicle Down Payment	1999-2011
Vehicle Finance Charges	1999-2011	Vehicle Lease Payment	1999-2011
Maintenance and Repairs	1999-2011	Insurance	1999-2011
Vehicle Insurance	1999-2011	Repairs and Maintenance	1999-2011
Vehicle rental, leases, licenses, and other charges	1999-2011	Gasoline	1999-2011
Intercity bus fares	1999-2011	Parking and carpool	1999-2011
Intracity mass transit fares	1999-2001	Bus fares and train fares	1999-2011
Intercity train fares	1999-2011	Taxicabs	1999-2011
Taxi fares and limousine service	1999-2001	Other transportation	1999-2011
Healthcare	1999-2011	Healthcare	1999-2011
Health Insurance	1999-2011	Doctor	1999-2011
Medical Services	1999-2011	Prescription Drugs	1999-2011
Drugs	1999-2011	Insurance	1999-2011
		Hospital/Nursing Home	1999-2011
Apparel and Services	1999-2011	Clothing	2005-2011
	1000 000	-1	1000 000
Education	1999-2011	Education	1999-2011
Entertainment	1999-2011	Entertainment	1999-2011
Recreation	1999-2011	Recreation	1999-2011
Reading	1999-2011	Reading	1999-2011
Trips	1999-2011	Trips	1999-2011

Appendix 2. Consumption Data Collected in the PSID: 1968-2011

(Includes Categories Not Used In this Report.)

Domain	Question Text	Waves Available
<u>Food</u>		
At home	F17 & F18 F22: In addition to what you buy with food stamps, do [you and anyone else in your family/you] spend any money on food that you use at home? How much do you spend on that food in an average week?	1968-2011, except '73, '88, '89
Delivered	F19F23 & F20F24: Do you have any food delivered to the door which isn't included in that? How much do you spend on that food?	1968, 1994 - 2011
Away from home	F21F25: About how much do [you and everyone else in your family/you] spend eating out?	1969 - 2011, except '73 '88, '89
Home repairs & maintenance		
	F87: How much did you spend altogether in 2008 on home repairs and maintenance, including materials plus any costs for hiring a professional?	2005-2011
Household furnishings & equipment		
	F88: How much did you spend altogether in 2008 on household furnishings and equipment, including household textiles, furniture, floor coverings, major appliances, small appliances and miscellaneous housewares?	2005-2011
Clothing & apparel		
	F89: How much did you spend altogether in 2008 on clothing and apparel, including footwear, outerwear, and products such as watches or jewelry?	2005-2011
Trips & vacations		
	F90: How much did you spend altogether in 2008 on trips and	2005-2011

accommodations, and recreational expenses on trips?

Recreation & entertainment	F91: How much did you spend	2005-2011
recreation & entertainment	altogether in 2008 on recreation and	2003 2011
	entertainment, including tickets to	
	movies, sporting events, and performing	
	arts and hobbies including exercise,	
	bicycles, trailers, camping, photography,	
	and reading materials?	
Joalth care		
Health care		
Hospital & nursing home	H64: About how much did you pay out-	1999-2011
	of-pocket for nursing home and hospital	
	bills in 2007 and 2008 combined?	
	UNFOLDING BRACKETS	
Doctor	H70: About how much did you pay out-	1999-2011
	of-pocket for doctor, outpatient surgery,	
	dental bills in 2007 and 2008 combined?	
Dan a sinti a a dan a	UNFOLDING BRACKETS ⁶	1000 2011
Prescription drugs	H76: About how much did you pay out-	1999-2011
	of-pocket for prescriptions, in-home	
	medical care, special facilities, and other services in 2007 and 2008 combined?	
	UNFOLDING BRACKETS	
Insurance	H63: Altogether, how much did	1999-2011
ilisurance	[you/your family] pay for health	1999-2011
	insurance premiums, in 2007 and 2008	
	combined, for (all of) the health	
	insurance or health care coverage(s) you	
	just mentioned? Please include amounts	
	that you had automatically deducted	
	from your pay, as well as amounts you	
	paid directly.	
Total medical care	H82: Could you give me your best	1999-2011
	estimate of the total cost of all medical	
	care for you in 2007 and 2008	
	combined? That is, the total of your	
	out-of-pocket costs you gave me, plus	
	the costs covered by Medicare,	
	Medicaid, or other health insurance?	
	UNFOLDING BRACKETS	
Medical Bills	W39B2: If you added up all medical bills	2011
	(for all of (your/the) family living there),	
	about how much would they amount to	
	right now?	
	-	-
Housing		

Mortgage	A25: How much are your monthly mortgage payments? A30: Do your payments include	1968 - 2011, except '73, '74, '75, '82, '88, '89
	insurance premiums? A29: Do your payments include property tax?	
Rent	A31: About how much rent do you pay a month? A31b. Is heat included in your monthly rent?	1968 - 2011, except '88, '89
	A31a. Does (the rent/this amount) include water and sewer?	2011
Insurance	A22: How much is your total yearly homeowner's insurance premium?	1991 - 2011
Property tax	A21: About how much are your total yearly property taxes, including city, county, and school taxes?	1968-2011, except '78, '88, '89
Electricity	A42 (A48): The next few questions are about amounts paid for utilities, such as electricity and water. How much [do you/does your family] usually pay for electricity per month?	1981 - 1983, 1999-2011
Heat	A41 (A49): How much [do you/does your family] usually pay) for gas or other types of heating fuel per month on average?	1981 - 1983, 1999-2011
Electricity and gas combined	A42a: How much do you [and your family living there] usually pay for gas and electricity combined? IF COMBINED	2007-2011
Water and sewer	A43 (A50): How much [do you/does your family] usually pay) for water and sewer per month?	1981 - 1983, 1999-2011
Other utilities	A45 (A51): And do you have any other utility expenses? A45a (A52): What were those other utilities expenses? A45b (A53): On average, how much are these other utility expenses per month?	1981 - 1983, 1999-2011
Telecommunication	A44. How much do you usually pay for telephone, including cell phone, cable or satellite TV, Internet service per month?	2005-2011
<u>Fransportation</u>		
Vehicle loan payment	F67 (V20): How much are your payments and how often are they made?	1968, 1999-2011
Down payment	F64 (V17): How much did you put down in cash?	1999-2011
Vehicle lease payment	F71 (V24): How much was your initial outlay for that lease including your down payment and any fees? F72 (V25): How much are your	1999-2011

payments and how often are they made?

Insurance	F77 (X1): How much do [you/you and your family living there] pay for car insurance [per year/for all your vehicles per year]?	1968, 1999-2011
Repairs and maintenance	F80a (X4a): Altogether in the last month, how much did [you/you and your family living there] pay for each of these transportation related expenses	1999-2011
Gasoline	F80b (X4b).	1999-2011
Parking and carpool	F80c (X4c).	1999-2011
Bus fares and train fares	F81a (X4d).	1999-2011
Taxicabs	F81b (X4e).	1999-2011
Other transportation	F81c (X4f).	1999-2011
Other vehicle expenditures	F79 (X3): (Other than the car payments you already told me about,) how much did you pay in car payments?	1999-2011
<u>Education</u>	F82 (X6): In 2008, did [you/you and your family living there] have any school-related expenses such as: - Purchase or rental of books, supplies, uniforms, or equipment including computers and software; - Tuition or tutoring not including any amounts for day care or nursery school. I will ask you about those later;	1999-2011
	- Room and board for a family member who is away at school? -Any other expenses? F83 (X7): How much in total were these expenses? F84 (X8): In 2008, were there any other school-related expenses not already	1999-2011
	covered in the previous question? F85 (X9): What other types of school- related expenses did you have? F86 (X10): Altogether, how much were these other expenses?	
	W39B1. If you added up all student loans (for all of (your/the) family living there), about how much would they amount to right now?	2011
<u>Child Care</u>	F6d (F7): How much did [you and your family living there/you] pay for child care in 2008? for which months?	1970, '71, '72, '76, '77, '79, '85, 1988-2011

Notes

¹The terms *consumer unit, family,* and *household* are often used interchangeably for convenience. However, the technical term for purposes of the Consumer Expenditure Survey is *consumer unit.* .A consumer unit consists of any of the following: (1) All members of a particular household who are related by blood, marriage, adoption, or some other legal arrangement; (2) a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; (3) two or more persons living together who use their incomes to make joint expenditure decisions. Financial independence is determined by spending behavior with regard to the three major expense categories: housing, food, and other living expenses. To be considered financially independent, the respondent must provide at least two of the three major expenditure categories, either entirely or in part.

² For more information on source selection details, see Brett J. Creech and Barry Steinberg, "CE Source Selection for Publication Tables," in *Consumer Expenditure Survey Anthology, 2011*, Report 1030 (U.S. Bureau of Labor Statistics, July 2011).

³ See <u>Panel Study of Income Dynamics, Consumer Expenditure Data</u>, which is produced and distributed by the Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor.

⁴ Patricia Andreski, Geng Li, Zahid Samancioglu, and Robert F. Schoeni, "Estimates of Annual Consumption Expenditures and Its Major Subcomponents in the PSID in Comparison to the CE," *American Economic Review*, Papers and Proceedings, May 2014.

⁵ For a random variable y_t , the *unconditional mean* is simply the expected value. In contrast, the *conditional mean* of y_t is the expected value of y_t given a conditioning set of variables. Ω_t . For more information, see "Conditional Mean Models, Documentation Center, MathWorks.com, http://www.mathworks.com/help/econ/what-is-a-conditional-mean-model.html.

⁶ Steven G. Heeringa, Daniel H. Hill, and David H. Howell, "Unfolding Brackets for Reducing Item Nonresponse in Economic Surveys," 1995. https://psidonline.isr.umich.edu/publications/Papers/tsp/1995-01_Reducing_Item_Nonresponse.pdf