Fun facts about Millennials: comparing expenditure patterns from the latest through the Greatest generation

This article compares the spending patterns of Millennials with those of earlier generations. The analysis uses data from a 2015 Consumer Expenditure Surveys experimental table, which provides information on generational demographics, income, and expenditures. Although some patterns, particularly those related to demographics, are different across generations, others are substantially similar, especially with respect to shares of expenditures allocated to food and apparel.

It is almost axiomatic that each generation of Americans believes that the next generation will be better off, or at least that this has been so historically.[1] It is not surprising, then, that a new generation now coming of age—the generation commonly known as Millennials—has garnered much media attention of late. A major reason for this attention is that the expectations for this group are contradictory: some argue that the group is, or will likely be, better off than its predecessors, while others argue that it is, or will likely be, worse off.[2]

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But how do Millennials, here and now, compare with members of earlier generations, and what might the present status of earlier generations imply for Millennials as they grow older? This article uses data from the Consumer Expenditure Surveys (CE),[3] along with a variety of expenditure measures, to compare Millennials with their elders both demographically and economically. Many interesting, and sometimes surprising, differences are found. (Hint: Who spends the most on cellular phone service?) But perhaps more interesting, or at least surprising, is the number of similarities shared across generations.[4]

Definitions

Before starting the analysis, one needs to define the generational categories being compared. According to the Pew Research Center, the first of the Millennials (so called because the oldest of them became adults around the turn of the millennium) were born in 1981.[5] The oldest members of this group turned 34 in 2015 (the most recent year for which CE data were available when this article was written), entering the early phase of their midcareer years.[6] The previous group, born between 1965 and 1980, is Generation X, a name "popularized by a 1991 book by Douglas Coupland titled *Generation X, Tales for an Accelerated Culture*."[7] The group before Generation X was that of "Baby Boomers"—those born between 1946 and 1964, and so named because of the large increase in births following the end of World War II. This group has been of perennial interest because of its size and historical impact on the U.S. economy, including in recent years, as the oldest members of the group (age 69 in 2015) started to enter retirement in increasing numbers. The oldest consumers today are members of the Silent generation[8] (born from 1928 to 1945, and between 70 and 87 years of age in 2015) or the GI generation (born before 1928), also known as the "Greatest" generation.[9] The definitions in this article are consistent with those used by the Pew Research Center, although slight differences exist for the Silent generation, defined here as those born from 1929 to 1945, and the GI generation, defined here as those born in 1928 or earlier.[10]

In this article, members of each group are defined by the age of the *reference person* for the *consumer unit*. The reference person is the first person mentioned when the respondent to the survey is asked who is responsible for owning or renting the respondent's home.[11] A consumer unit is similar to a family, in that it includes persons living together who are related by blood, marriage, adoption, or other legal arrangement. However, the term also includes single persons who live in the same dwelling but are unrelated and financially independent, such as roommates sharing an apartment.[12]

The classification by reference person, which is standard in CE publications, means that not all members of a consumer unit necessarily belong to the same generation. For example, Generation X consumer units may include children who are Millennials, and consumer units of older generations may include grandchildren or other relatives who are Millennials (or Generation Xers, or even Boomers).

About the data

This research uses data from CE experimental tables.[13] These tables, whose definitions of generations rely on those used by the Pew Research Center,[14] present results from a rich and unique data source. The CE program has released experimental generational tables for 2014 and 2015, and midyear tables covering July 2014 through June 2015 and July 2015 through June 2016, respectively. With the release of 2016 data, the generational tables became regular tables. The analysis in this article focuses primarily on the results included in the experimental annual table for 2015, the most recent available at the time this article was written.

The CE data are collected in two component surveys fielded to independent samples: the quarterly Interview Survey and the Diary Survey. In the Interview Survey, participants are visited once every 3 months for a total of four consecutive visits.[15] At each visit, the respondent is asked to report expenditures made by the consumer unit during the previous 3 months. In the Diary Survey, respondents report daily expenditures for the consumer unit in a diary for 1 week. At the end of that week, the diary is replaced, and the process is repeated for a second week. At the end of the second week, participation concludes.

The Interview Survey is the source of data on expenditures for "big ticket" and recurring items, such as major appliances and rent. The Diary Survey is the source of detailed expenditure information for items such as food, whose purchases are more difficult to recall. In addition to collecting expenditures, both component surveys gather information on demographics and income. The Interview Survey also collects information on assets and liabilities.[16]

Published tables, including the experimental table used as the main source of data for the analysis in this article, present information from both surveys.

Demographics

As defined in the CE experimental tables, Millennials are the youngest consumers included in the CE, and that has some ramifications for their family size, income, expenditures, etc. As noted earlier, the oldest consumers in the generation are entering their midcareer years. But the youngest are just starting out; that is, they are of traditional high school, college, or career-entry age. Therefore, it is not surprising that, compared with the other "working" (or "not yet retired") generations (i.e., Generation Xers and Baby Boomers), Millennials have the lowest levels of income before taxes and the lowest average annual expenditures. They also have the lowest homeownership rates of any generation (about one-third of them own a home, compared with nearly two-thirds or more for the other generations).[17] Similarly, vehicle ownership—reflected in statistics for both number of vehicles owned and percentage of consumer units owning at least one vehicle—peaks for the middle generations (Generation Xers and Baby Boomers) and declines thereafter. (See table 1.)

Table 1. Annual expenditure means and standard errors (SEs), by generation of reference person, 2015

Category	All consumer units	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Number of consumer units	128,437,362	29,008,802	35,857,621	44,174,972	17,116,020	2,279,947
Consumer unit characteristics:						
Age of reference person	50.5	27.5	42.9	59.7	76.7	90.2
Average number in consumer unit:						
People	2.5	2.5	3.2	2.2	1.7	1.4
Children under 18	0.6	0.8	1.2	0.2	0.1	0.0
Adults 65 and older	0.4	0.0	0.0	0.4	1.4	1.2
Earners	1.3	1.4	1.7	1.3	0.4	0.1
Vehicles	1.9	1.5	2.1	2.2	1.6	0.8
Percent distribution:						
Reference person:						
Men	47	47	47	49	45	34
Women	53	53	53	51	55	66
Housing tenure:						
Homeowner	62	33	62	76	80	64
With mortgage	35	26	48	40	17	6
Without mortgage	27	6	14	36	63	59
Renter	38	67	38	24	20	36
Race of reference person:						
Black or African American	13	15	14	13	8	9
White, Asian, and all other races	87	85	86	87	92	91
Hispanic or Latino origin of reference person:						
Hispanic or Latino	13	18	18	9	6	4
Not Hispanic or Latino	87	82	82	91	94	96
Education of reference person:						
Elementary (1–8)	3	1	3	3	5	10
High school (9–12)	32	27	29	33	42	50
College	64	72	67	63	52	40
Never attended and other	0	0	0	0	1	0

See footnotes at end of table.

Table 1. Annual expenditure means and standard errors (SEs), by generation of reference person, 2015

Category	All consumer units		Millennial (born 1981 and later)		Generation X (born 1965 to 1980)		Baby Boom (born 1946 to 1964)		Silent (born 1929 to 1945)		GI (born 1928 and earlier)	
At least one vehicle owned or leased	87		82		91		90		86		60	
Item	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Average annual expenditures	$55,978.46	$594.00	$47,112.78	$699.64	$66,981.40	$1,043.80	$59,646.33	$1,001.92	$42,347.68	$1,259.58	$29,040.59	$1,227.27
Food	7,022.59	77.17	6,154.92	152.76	8,745.94	166.02	7,143.48	134.33	5,128.41	162.65	3,591.22	318.22
Food at home	4,014.57	50.10	3,264.37	101.73	4,881.56	126.09	4,243.39	90.57	3,164.58	112.72	2,504.66	269.78
Cereals and bakery products	517.85	6.93	427.63	15.27	621.14	16.32	526.39	13.84	462.78	20.68	357.43	36.68
Cereals and cereal products	172.13	3.32	164.40	7.47	215.43	6.80	163.95	5.72	127.83	6.51	90.38	13.53
Bakery products	345.71	5.11	263.24	11.76	405.71	11.60	362.44	11.62	334.96	16.37	267.04	30.02
Meats, poultry, fish, and eggs	895.82	16.91	711.49	31.98	1,113.10	38.61	964.18	25.52	650.07	31.52	512.16	85.20
Beef	245.10	9.40	186.29	11.13	315.67	25.44	263.80	14.54	174.70	12.09	101.81*	25.51
Pork	165.03	4.76	122.94	8.29	194.02	8.88	186.10	8.12	137.77	9.90	77.89	16.28
Other meats	124.23	3.73	100.72	7.13	156.57	7.24	132.47	7.02	84.56	6.08	74.89	18.55
Poultry	172.46	3.51	158.79	9.57	217.59	10.37	174.90	5.79	107.88	6.63	92.44	21.23
Fish and seafood	125.69	4.68	86.97	5.79	153.47	10.50	143.16	7.19	93.20	9.15	119.14	28.92
Eggs	63.31	1.40	55.78	2.66	75.78	2.31	63.76	2.53	51.96	3.68	45.97	5.46
Dairy products	412.71	6.57	340.62	12.08	496.48	11.75	429.88	12.68	340.02	16.27	285.89	46.09
Fresh milk and cream	139.76	2.40	121.32	5.07	173.95	5.09	137.12	4.38	114.32	5.35	93.53	13.05
Other dairy products	272.95	5.23	219.30	7.84	322.53	8.94	292.75	9.76	225.70	13.52	192.36	38.69
Fruits and vegetables	768.75	12.06	617.89	23.35	931.58	27.18	802.13	20.85	643.61	24.58	541.62	70.15
Fresh fruits	283.77	5.11	222.03	9.77	344.59	12.22	295.14	10.06	247.39	13.97	213.02	31.34
Fresh vegetables	247.07	4.50	204.58	7.68	299.90	10.70	257.95	7.10	197.72	10.08	153.33	21.81
Processed fruits	107.68	2.73	85.69	4.67	129.84	6.31	110.88	4.21	93.73	4.64	98.35	14.29
Processed vegetables	130.22	3.64	105.59	6.06	157.26	6.59	138.16	6.46	104.78	7.51	76.92	17.27
Other food at home	1,419.45	22.77	1,166.74	37.94	1,719.25	64.69	1,520.80	39.72	1,068.09	42.08	807.56	83.62
Sugar and other sweets	155.21	10.26	99.86	6.22	207.00	39.28	165.07	8.58	128.78	7.54	93.72	14.84
Fats and oils	111.32	2.70	85.42	4.69	129.11	5.50	121.91	4.02	98.48	6.28	73.72	14.91
Miscellaneous foods	726.31	11.98	647.66	24.35	880.92	24.43	755.11	24.40	518.48	21.93	383.99	51.24
Nonalcoholic beverages	374.16	7.60	304.19	14.03	441.52	13.48	409.21	13.46	286.09	15.49	251.72	36.94
Food prepared by consumer unit on out-of-town trips	52.45	2.69	29.59	2.42	60.70	4.63	69.50	4.84	36.26	3.34	4.40*	2.71
Food away from home	3,008.02	46.82	2,890.55	85.67	3,864.39	86.19	2,900.09	86.91	1,963.83	94.94	1,086.56	161.25

See footnotes at end of table.

Table 1. Annual expenditure means and standard errors (SEs), by generation of reference person, 2015

Category	All consumer units		Millennial (born 1981 and later)		Generation X (born 1965 to 1980)		Baby Boom (born 1946 to 1964)		Silent (born 1929 to 1945)		GI (born 1928 and earlier)	
Alcoholic beverages	515.11	21.77	462.77	28.02	624.04	57.80	565.47	31.53	312.35	32.40	82.92*	23.36
Housing	18,408.83	196.17	16,504.74	229.55	21,954.23	314.65	18,320.25	299.83	15,107.24	541.35	13,716.79	765.01
Shelter	10,742.22	126.16	10,153.59	179.40	13,057.26	204.71	10,303.73	204.05	8,242.88	374.63	9,081.07	851.24
Owned dwellings	6,210.06	85.72	3,569.23	144.48	8,033.47	178.99	6,993.59	170.21	5,281.44	277.18	2,923.34	264.82
Mortgage interest and charges	2,858.86	57.41	2,144.38	94.55	4,523.42	127.00	2,841.67	98.71	973.93	102.18	253.96*	90.96
Property taxes	1,913.48	37.37	856.70	33.31	2,162.67	58.75	2,355.88	72.94	2,102.56	117.33	1,448.97	126.27
Maintenance, repairs, insurance, other expenses	1,437.72	39.44	568.14	53.57	1,347.38	80.75	1,796.04	63.30	2,204.95	164.84	1,220.40	180.87
Rented dwellings	3,802.09	60.96	6,240.71	114.08	4,324.30	135.90	2,383.47	115.51	1,948.51	193.02	5,963.04	861.09
Other lodging	730.07	41.89	343.65	24.74	699.50	44.09	926.67	67.57	1,012.93	195.04	194.70*	80.08
Utilities, fuels, and public services	3,885.11	32.01	2,981.60	58.40	4,412.86	54.17	4,220.91	51.63	3,624.48	77.32	2,530.99	114.93
Natural gas	421.29	13.47	284.13	13.07	467.75	18.21	467.71	16.51	445.20	28.67	356.73	35.09
Electricity	1,459.98	14.83	1,149.22	24.63	1,613.22	24.49	1,574.39	22.21	1,432.76	31.55	991.59	63.03
Fuel oil and other fuels	116.35	8.36	56.23	12.96	104.11	15.39	136.72	9.40	194.66	21.95	91.15*	33.08
Telephone services	1,347.12	12.96	1,116.07	26.41	1,627.01	25.41	1,440.53	22.85	1,004.44	22.79	647.53	31.78
Residential phone service, VOIP, and phone cards	324.27	6.05	110.01	6.60	293.70	10.79	413.09	9.70	504.88	14.96	454.12	14.88
Cellular phone service	1,022.85	11.96	1,006.06	26.48	1,333.30	23.97	1,027.43	18.63	499.56	20.42	193.41	29.44
Water and other public services	540.37	12.19	375.94	15.66	600.77	17.95	601.55	15.21	547.42	22.37	443.99	32.87
Household operations	1,308.62	41.75	1,366.72	61.80	1,698.04	97.07	1,010.20	38.83	1,198.48	121.67	1,058.41	221.06
Personal services	426.78	27.29	765.11	52.42	710.11	74.12	75.38	13.73	185.88*	95.89	283.30*	145.41
Other household expenses	881.84	22.19	601.62	20.82	987.93	40.90	934.83	32.74	1,012.60	82.34	775.11	134.53
Housekeeping supplies	654.57	16.44	445.30	20.78	695.02	32.68	767.99	27.50	686.87	47.36	402.40	70.32
Laundry and cleaning supplies	155.82	5.03	122.47	8.46	191.73	11.78	166.49	9.23	122.54	8.44	87.02*	25.45
Other household products	367.56	12.20	236.66	13.71	383.09	27.36	441.14	20.85	408.30	36.51	157.63	24.53
Postage and stationery	131.19	4.76	86.17	8.09	120.20	8.51	160.36	9.40	156.03	14.81	157.74*	55.88
Household furnishings and equipment	1,818.31	56.24	1,557.53	55.64	2,091.05	100.87	2,017.41	94.52	1,354.55	96.64	643.92	153.83
Household textiles	114.79	7.61	77.24	7.60	123.04	11.53	149.24	17.71	89.51	16.04	20.57*	9.86
Furniture	502.25	26.87	482.42	33.83	682.80	69.51	474.87	33.29	270.72	41.67	183.51*	95.07
Floor coverings	17.73	1.68	12.13	1.51	19.01	3.08	20.09	2.62	20.63*	6.86	1.49*	0.65
Major appliances	268.16	11.89	198.09	15.33	303.14	32.06	295.40	17.28	262.47	33.69	124.50*	43.85

See footnotes at end of table.

Table 1. Annual expenditure means and standard errors (SEs), by generation of reference person, 2015

Category	All consumer units		Millennial (born 1981 and later)		Generation X (born 1965 to 1980)		Baby Boom (born 1946 to 1964)		Silent (born 1929 to 1945)		GI (born 1928 and earlier)	
Small appliances, miscellaneous housewares	117.50	6.43	92.08	6.75	138.30	13.59	134.58	10.97	86.77	10.25	32.97*	15.01
Miscellaneous household equipment	797.88	34.52	695.57	46.89	824.77	53.13	943.23	77.82	624.45	65.16	280.89*	77.93
Apparel and services	1,846.21	98.91	1,708.03	78.99	2,442.06	143.69	1,936.74	254.10	847.53	68.74	221.25	43.28
Men and boys	421.86	17.50	418.60	29.47	563.48	42.05	417.57	28.99	200.23	21.06	17.33*	8.02
Men, 16 and over	330.94	15.29	312.26	24.22	395.77	37.51	367.38	28.75	180.25	20.00	15.59*	7.90
Boys, 2 to 15	90.93	4.98	106.34	13.04	167.71	13.99	50.19	5.74	19.99	4.43	1.74*	1.72
Women and girls	697.15	37.37	579.17	44.01	910.60	53.75	776.30	94.61	344.44	39.39	101.47*	35.14
Women, 16 and over	595.66	36.53	495.76	44.36	699.89	50.58	713.23	93.64	327.27	38.29	95.94*	35.16
Girls, 2 to 15	101.49	4.94	83.41	8.24	210.71	16.00	63.07	8.00	17.17	3.77	5.53*	3.88
Children under 2	82.81	7.12	168.85	19.85	100.10	20.51	36.66*	11.73	21.81*	11.43	11.65*	11.30
Footwear	353.80	19.33	302.06	25.85	509.58	41.27	360.22	39.24	149.80	28.27	32.32*	20.50
Other apparel products and services	290.59	46.88	239.35	25.21	358.30	87.81	346.00*	115.66	131.25	10.80	58.47	13.48
Transportation	9,502.79	218.03	8,920.20	383.55	11,069.97	324.58	10,224.01	345.65	6,325.28	393.89	2,489.90	465.51
Vehicle purchases (net outlay)	3,996.92	187.87	4,236.34	323.44	4,654.88	303.71	4,113.74	296.39	2,369.74	317.75	555.06*	252.48
Cars and trucks, new	1,956.44	126.00	1,846.94	279.38	1,933.30	226.51	2,417.02	202.05	1,225.21	217.02	279.27*	227.67
Cars and trucks, used	1,981.71	96.92	2,301.53	183.00	2,669.57	193.74	1,630.46	188.35	1,132.43	206.12	275.78*	143.47
Other vehicles	58.77	10.84	87.87*	29.85	52.01*	21.67	66.26*	21.08	12.11*	10.69	0.00	0.00
Gasoline and motor oil	2,089.56	24.17	1,962.90	46.35	2,559.20	40.81	2,163.35	34.54	1,336.27	34.14	540.38	69.69
Other vehicle expenses	2,755.65	57.92	2,179.42	79.68	3,069.69	100.88	3,225.04	133.01	2,109.91	148.74	1,255.47*	357.65
Vehicle finance charges	216.14	5.50	228.87	11.63	280.50	11.55	219.57	8.85	77.41	6.97	17.31*	6.80
Maintenance and repairs	836.77	23.03	603.83	24.44	973.72	38.97	981.02	45.76	657.78	62.09	237.48	52.53
Vehicle insurance	1,078.56	54.06	742.35	60.89	1,087.68	98.10	1,391.75	123.60	896.75	134.84	822.28*	360.23
Vehicle rental, leases, licenses, and other charges	624.17	23.68	604.38	37.05	727.79	39.35	632.71	31.00	477.97	62.07	178.40*	50.25
Public and other transportation	660.65	25.32	541.54	25.35	786.20	48.45	721.88	39.33	509.36	62.46	139.00	32.93
Healthcare	4,342.03	58.11	2,324.77	74.39	4,249.84	110.53	5,096.10	101.78	5,976.24	157.93	4,626.24	242.90
Health insurance	2,977.32	38.63	1,629.97	54.11	2,986.40	82.49	3,446.62	66.25	3,980.19	93.90	3,355.95	185.85
Medical services	791.35	34.90	438.22	34.64	792.78	46.97	934.41	58.61	1,046.35	94.19	575.53	137.66
Drugs	424.63	10.07	182.36	10.23	331.38	15.00	546.12	21.49	716.78	35.22	464.88	54.14

See footnotes at end of table.

Table 1. Annual expenditure means and standard errors (SEs), by generation of reference person, 2015

Category	All consumer units		Millennial (born 1981 and later)		Generation X (born 1965 to 1980)		Baby Boom (born 1946 to 1964)		Silent (born 1929 to 1945)		GI (born 1928 and earlier)	
Medical supplies	148.73	5.79	74.22	5.01	139.28	8.87	168.94	8.72	232.92	25.14	229.88*	67.05
Entertainment	2,842.07	65.23	2,186.07	53.11	3,230.98	99.43	3,286.14	156.64	2,276.30	148.00	884.62	66.34
Fees and admissions	652.21	25.16	465.73	20.37	948.65	55.11	628.71	30.85	489.45	66.32	60.11*	22.31
Audio and visual equipment and services	1,083.61	12.71	908.47	32.44	1,209.49	27.82	1,144.65	24.13	1,013.15	25.15	665.22	36.00
Pets, toys, hobbies, and playground equipment	653.12	23.92	475.86	33.68	684.03	39.85	833.05	55.83	514.50	62.04	132.66*	33.69
Pets	528.17	23.54	337.30	28.40	512.32	40.82	733.08	55.29	433.60	57.01	107.04*	30.40
Toys, hobbies, and playground equipment	124.95	5.89	138.56	17.15	171.71	13.95	99.97	7.50	80.90	15.37	25.62*	13.07
Other entertainment supplies, equipment, and services	453.13	48.87	336.01	25.00	388.82	48.35	679.73	138.77	259.20*	83.09	26.62*	16.50
Personal care products and services	682.56	10.80	555.58	27.21	827.88	28.08	709.59	22.14	551.51	32.58	525.44	57.43
Reading	114.06	5.22	73.43	5.58	93.45	6.11	125.81	7.92	183.92	21.40	215.98*	118.04
Education	1,314.65	79.53	1,496.84	160.46	1,698.60	161.42	1,364.39	138.81	239.95*	76.62	69.37*	41.43
Tobacco products and smoking supplies	349.33	11.39	330.47	14.92	419.84	26.65	384.09	18.59	183.87	13.71	38.50*	14.98
Miscellaneous	871.01	45.65	510.73	39.23	1,067.75	95.39	926.35	53.28	972.80	133.12	542.26*	255.00
Cash contributions	1,818.53	68.39	750.42	61.46	2,047.42	149.71	2,160.04	99.87	2,288.49	212.04	1,663.85*	519.18
Personal insurance and pensions	6,348.68	116.57	5,133.81	123.35	8,509.39	252.36	7,403.88	256.93	1,953.79	241.12	372.26*	94.83
Life and other personal insurance	332.84	24.46	101.95	9.26	344.71	35.59	494.18	63.65	307.63	34.63	147.39*	55.74
Pensions and Social Security	6,015.84	113.55	5,031.86	123.23	8,164.68	243.67	6,909.70	249.21	1,646.16	235.00	224.88*	68.95
Sources of income and personal taxes:												
Money income before taxes	69,626.53	871.92	56,099.83	1,151.70	89,652.37	2,031.15	75,083.37	1,285.84	42,423.05	1,899.32	25,271.94	1464.85
Wages and salaries	54,404.68	851.84	51,530.03	1,076.72	80,409.38	1,882.71	55,118.76	1,247.95	9,932.68	980.64	2,018.41*	705.20
Self-employment income	4,363.47	231.97	2,166.03	287.08	5,559.74	535.49	5,733.82	389.30	2,619.33*	751.15	50.43*	89.51
Social Security, private and government retirement	7,801.21	172.97	497.78	76.43	1,376.53	188.85	10,397.89	342.43	25,282.84	651.06	20,219.51	897.93
Interest, dividends, rental income, other property income	1,737.33	140.39	207.75	43.24	946.66	123.69	2,529.64	280.03	3,864.43	664.57	2,314.21*	647.96

See footnotes at end of table.

Table 1. Annual expenditure means and standard errors (SEs), by generation of reference person, 2015

Category	All consumer units		Millennial (born 1981 and later)		Generation X (born 1965 to 1980)		Baby Boom (born 1946 to 1964)		Silent (born 1929 to 1945)		GI (born 1928 and earlier)	
Public assistance, Supplemental Security Income, Supplemental Nutrition Assistance Program (SNAP)	567.69	23.66	625.14	51.15	614.37	45.99	627.81	39.31	262.80	31.03	226.43*	89.65
Unemployment and workers' compensation, veterans' benefits, and regular contributions for support	432.11	30.78	390.12	46.94	493.77	59.17	476.86	60.66	278.82	65.95	280.68*	139.67
Other income	320.05	26.13	682.98	79.55	251.91	33.78	198.60	28.63	182.15	41.04	162.26*	70.54
Personal taxes (contains some imputed values)	9,178.34	295.70	5,893.77	237.62	13,443.47	783.03	10,795.40	396.22	2,801.17	476.28	433.45*	219.53
Federal income taxes	7,111.03	221.98	4,339.60	198.38	10,416.97	623.27	8,446.84	302.69	2,327.54	444.21	408.08*	164.09
State and local income taxes	1,997.36	96.48	1,524.73	73.72	2,981.82	194.56	2,219.71	109.43	426.74	80.94	10.65*	69.89
Other taxes	69.95*	19.68	29.44	6.32	44.68	10.13	128.85*	51.63	46.89*	17.09	14.71*	7.91
Income after taxes	60,448.19	634.35	50,206.06	976.12	76,208.90	1,412.66	64,287.98	975.87	39,621.88	1,473.95	24,838.49	1,320.32
Addenda:												
Net change in total assets and liabilities	6,937.37	1,479.67	-533.86	1,708.54	5,271.26*	2,619.26	13,634.66	2,636.62	6,473.34*	2,805.11	1,921.61*	2,433.00
Net change in total assets	15,441.54	1,446.39	12,986.25	1,419.34	17,595.19	2,794.60	18,557.61	2,479.04	8,783.66*	2,613.76	2,416.84*	2,373.34
Net change in total liabilities	8,504.17	685.61	13,520.11	1,814.39	12,323.93	1,482.83	4,922.95	1,143.63	2,310.32*	1,046.44	495.23*	609.81
Other financial information:												
Other money receipts	766.05	181.72	166.43*	46.44	1,038.57*	578.72	1,010.15*	264.65	655.10*	190.41	212.58*	114.37
Mortgage principal paid on owned property	-1,756.73	43.18	-796.30	34.08	-2,290.85	80.67	-2,326.53	99.72	-996.00	101.92	-247.11	79.65
Estimated market value of owned home	162,748.81	3,202.93	65,875.37	3,043.97	173,442.83	5,873.67	203,261.50	4,469.74	205,500.42	11,093.97	121,228.72	8,908.08
Estimated monthly rental value of owned home	929.84	11.23	450.50	18.15	988.09	20.92	1,141.16	20.20	1,096.66	32.72	765.84	49.31
Gifts of goods and services, total[1]	1,248.76	72.43	587.87	51.84	1,186.85	119.53	1,868.01	173.81	1,037.57	122.35	397.76*	134.85
Food	91.41	10.60	47.14	10.80	111.40*	37.03	120.10	14.29	56.43	11.89	70.07*	36.76
Alcoholic beverages	14.50	2.38	8.62*	3.60	12.91*	3.61	22.01	5.26	10.93*	3.85	1.68*	0.60
Housing	244.41	16.51	150.30	26.95	224.56	25.75	312.32	27.63	288.31	49.67	133.07*	64.68
Housekeeping supplies	30.30	3.75	14.23	2.36	25.38	3.58	41.19	7.84	43.90*	11.54	10.69*	6.02
Household textiles	7.85*	1.99	2.45*	1.08	10.47*	6.69	11.65	2.64	3.37*	2.00	0.00	0.00

See footnotes at end of table.

Table 1. Annual expenditure means and standard errors (SEs), by generation of reference person, 2015

Category	All consumer units		Millennial (born 1981 and later)		Generation X (born 1965 to 1980)		Baby Boom (born 1946 to 1964)		Silent (born 1929 to 1945)		GI (born 1928 and earlier)	
Appliances and miscellaneous housewares	21.56	3.33	13.58*	3.89	19.49*	5.23	30.47	5.79	19.45*	6.55	4.41*	4.28
Major appliances	7.94	1.33	4.62*	2.93	8.20*	2.84	8.53	1.84	12.55*	5.98	0.00	0.00
Small appliances and miscellaneous housewares	13.63	2.56	8.96*	2.32	11.28*	2.87	21.94*	5.69	6.90*	1.74	4.41*	4.28
Miscellaneous household equipment	47.70	5.88	42.64	10.44	31.16	4.85	68.78	11.65	41.47*	10.60	12.79*	6.49
Other housing	137.00	11.84	77.40	18.44	138.07	22.61	160.23	17.56	180.12*	46.08	105.19*	69.19
Apparel and services	253.20	41.42	175.68	21.55	236.71	28.13	385.54*	126.12	121.18	22.14	22.56*	12.59
Males, 2 and over	58.71	5.17	42.86	9.72	66.89	11.30	70.72	10.77	46.62*	13.21	1.74*	1.72
Females, 2 and over	64.02	6.50	35.91	8.88	64.24	8.61	97.44	17.01	36.14*	12.48	9.09*	5.17
Children under 2	40.35	6.15	54.12*	15.00	51.48*	18.33	33.21*	11.65	14.95*	7.44	11.65*	11.30
Other apparel products and services	90.13*	36.86	42.79*	14.58	54.11*	15.11	184.16*	114.76	23.47*	6.21	0.08*	0.08
Jewelry and watches	59.82*	36.32	25.97*	13.68	15.93*	8.65	143.98*	114.35	6.49*	1.71	0.00	0.00
All other apparel products and services	30.31	4.71	16.82*	4.80	38.18*	11.90	40.18	8.58	16.98*	6.11	0.08*	0.08
Transportation	139.05	19.81	69.55*	22.28	107.31	23.88	211.93	49.27	148.32*	47.05	43.96*	19.52
Healthcare	34.16	7.46	3.48*	1.34	24.58*	6.95	43.68*	11.11	86.40*	40.64	0.00	0.00
Entertainment	94.79	8.69	76.89	16.18	90.54	13.35	125.11	19.33	65.08	11.31	36.14*	19.26
Toys, games, arts and crafts, and tricycles	29.28	3.80	24.45*	7.15	31.70	6.19	31.17	5.98	30.50*	9.28	10.89*	10.64
Other entertainment	65.50	6.83	52.44*	14.46	58.85	10.21	93.94	16.09	34.57	6.37	25.25*	16.46
Personal care products and services	16.34	2.82	6.71*	2.07	19.20*	4.84	23.79*	6.38	10.80*	4.43	0.00	0.00
Reading	5.72	0.85	5.21*	1.53	3.95*	0.99	7.48	1.62	6.52*	1.99	0.00	0.00
Education	278.17	34.06	18.17*	10.29	296.29*	82.00	498.52	69.65	147.88*	70.87	12.87*	12.50
All other gifts	77.02	5.85	26.13	4.12	59.39	9.76	117.53	14.13	95.73	19.76	77.42*	75.97

Notes:

[1] Gifts are a subset of, and are included in, expenditure totals.

* Coefficient of variation equal to or greater than 25; estimate is unreliable because of high variance.

See footnotes at end of table.

Source: U.S. Bureau of Labor Statistics.

However, some generational differences are not directly related to the lifecycle or age. This is important because the expenditure patterns of older consumers may differ from those of Millennials not only because these consumers are older, but because they have different racial and ethnic compositions, as well as other demographic characteristics described later in this article (e.g., education and family size). These characteristics can affect expenditures in two ways: directly, through their relationship to tastes and preferences, and indirectly, through their relationship to factors such as income. However, such effects are difficult to identify even with formal statistical analysis of microdata (e.g., regression analysis) and impossible to identify with the tabular data used in this article. Therefore, their potential influence is noted here, but no attempt to disentangle the effects is made. Some noteworthy examples follow.

As shown in table 1, Millennials are more likely than older generations to be members of a racial or ethnic minority group. For example, 15 percent of Millennial consumer units have a reference person who is Black or African American. (See figure 1a.) While this percentage is only slightly higher than that for either Generation Xers (14 percent) or Baby Boomers (13 percent), it is much higher than the percentage for either Silents (8 percent) or GIs (9 percent). Similarly, the likelihood of Millennials and Generation Xers being of Hispanic origin (18 percent) is twice that of Baby Boomers (9 percent), 3 times that of Silents (6 percent), and more than 4 times that of GIs (4 percent). In addition, Millennials and Generation Xers are the only groups with a higher proportion of reference persons who are Hispanic than Black or African American. (See figure 1b.)[18] This result most likely reflects recent immigration patterns among Hispanics, with Millennials being either immigrants themselves or children of Generation Xers.
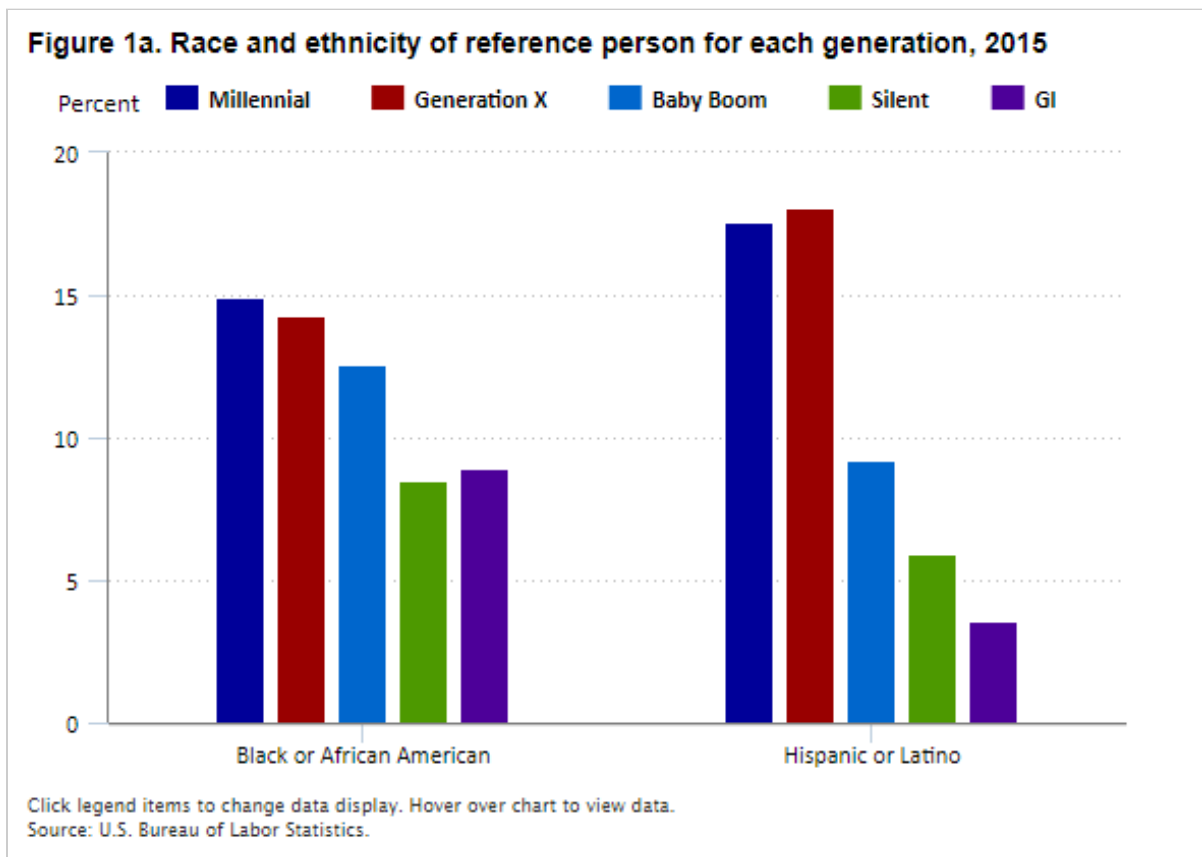
Figure 1a. Race and ethnicity of reference person for each generation, 2015
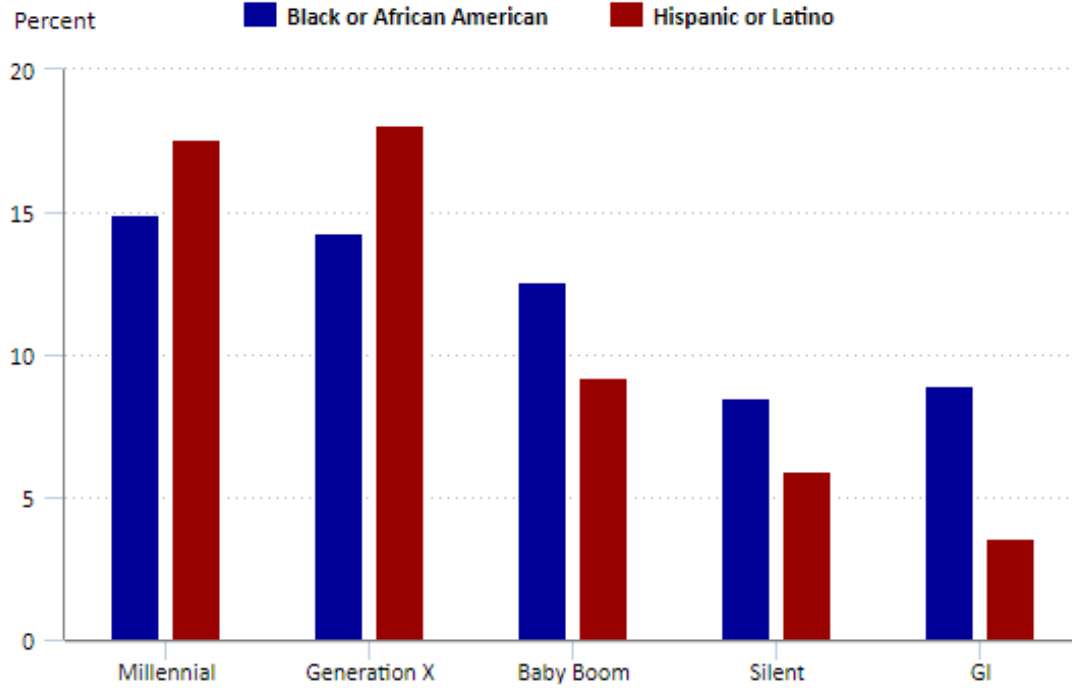
Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Figure 1b. Race and ethnicity of reference person, by generation, 2015

Percent

■ Black or African American   ■ Hispanic or Latino

Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Figure 1b. Race and ethnicity of reference person, by generation, 2015

Percent

■ Black or African American   ■ Hispanic or Latino
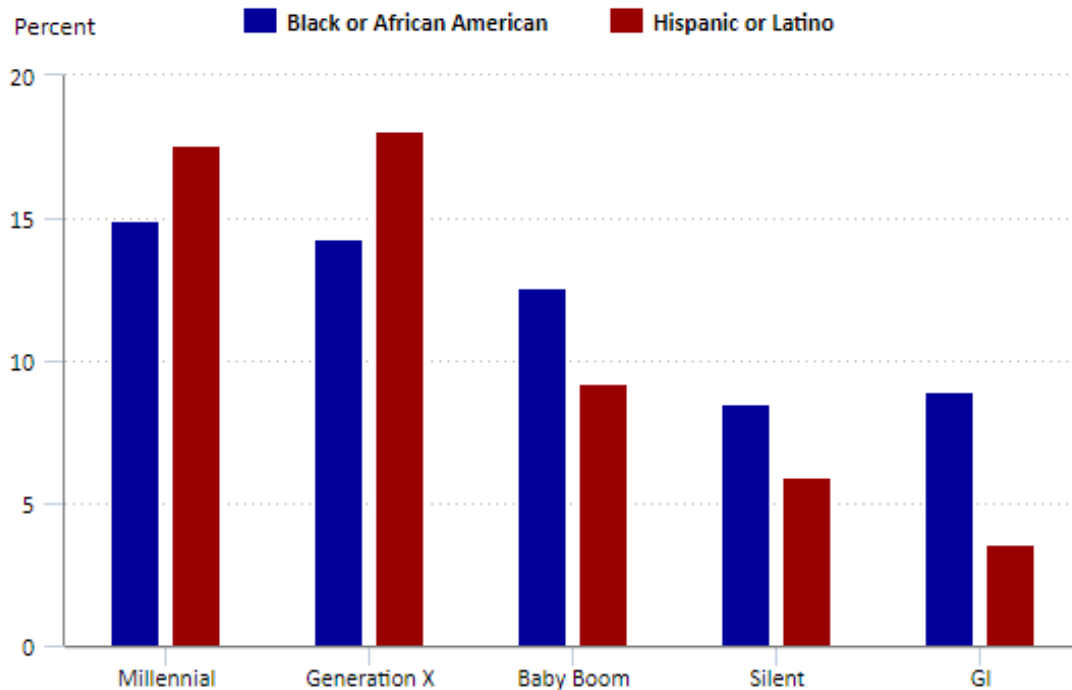
Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

In addition, Millennials are more highly educated than any preceding generation. Nearly three-fourths of them have attended college, compared with, for example, two-thirds of Generation Xers. (See figure 2.) But the starkest contrast is with the oldest generation. In addition to being almost twice as likely to have attended college as are GIs (72 percent compared with 40 percent), Millennials are half as likely to report high school as their highest educational attainment (27 percent compared with 50 percent). Furthermore, almost no Millennials (1 percent) report their highest educational attainment to be 8th grade or less, compared with 1 in 10 members of the oldest generation.

Figure 2. Educational attainment of reference person for each generation, 2015

Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.
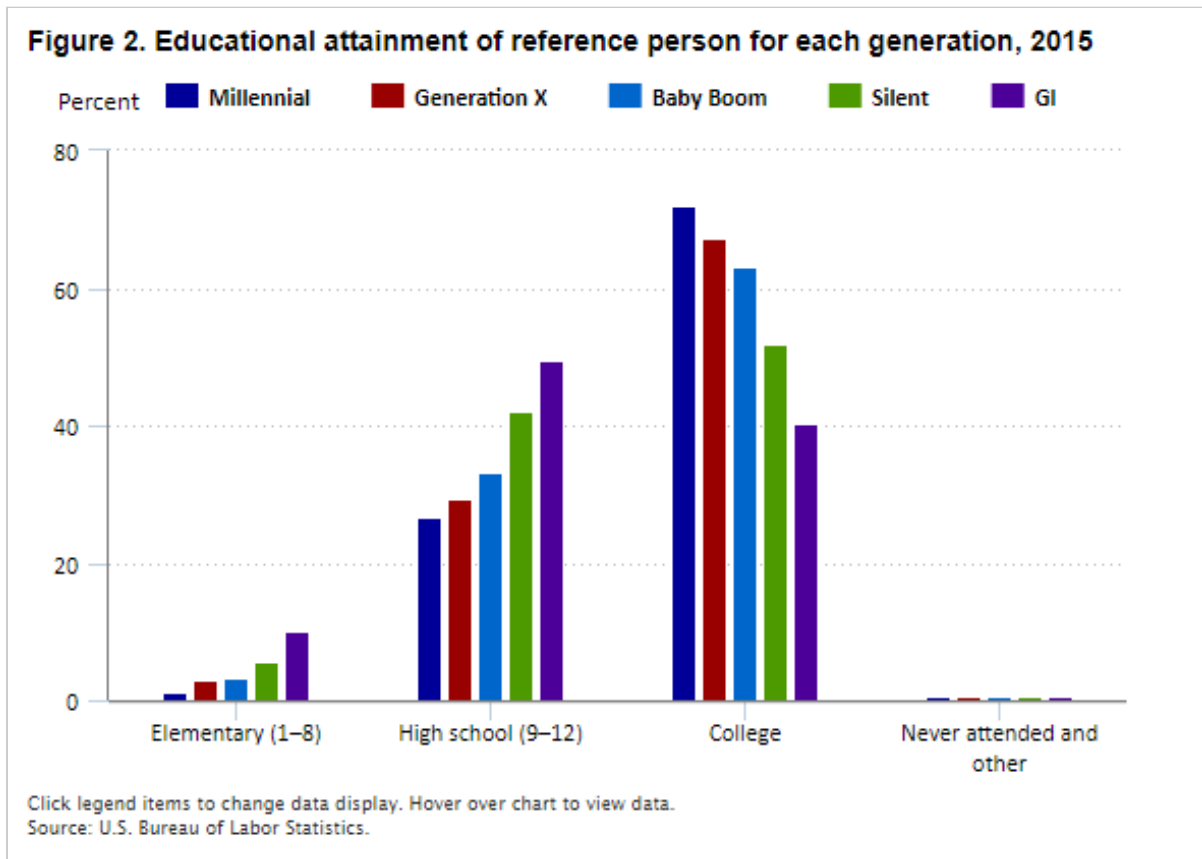
While generational differences in demographic and other characteristics may affect the expenditure patterns described later in the article, some of these characteristics (home and vehicle ownership rates) are "temporary," associated with the Millennials' point in the lifecycle. Others are permanent (race and ethnicity), or unlikely to change much (educational attainment), and will likely influence Millennial expenditure patterns throughout the lifecycle. Therefore, it will be interesting to monitor Millennials as they get older, to see how they shape general expenditure patterns in years to come and how they differ from their counterparts in different eras.

Expenditure levels

Given the aforementioned relationship between income and age, it is not surprising that most major expenditure categories—defined here as food, housing, apparel and services, transportation, healthcare, and entertainment— follow the same pattern as income, peaking for Generation Xers and declining thereafter.[19] (See table 1.) The two exceptions are healthcare and entertainment.

Healthcare spending, which includes only out-of-pocket expenditures in the CE, mostly increases with age (as expected *a priori*) but peaks with the Silent generation. There are a few possible explanations for this result. First, it could be that the GI generation has access to insurance policies that cost less and cover more than the policies of younger groups. This could be because GIs were "grandfathered" into programs that were later discontinued. It also could be because they have the lowest incomes, which makes them more likely than younger groups to receive coverage through Medicaid or another government-assisted insurance program.[20] Similarly, there may be self-selection involved. The fact that the members of this group have survived to at least 87 years of age may indicate that they have been in better health throughout their lives, meaning that they now require less healthcare than even those in the immediately following generation (the Silents). It is also important to note that expenditures are reported for the consumer unit as a whole, and the consumer units of the GI generation are smaller in size (1.4 members) than those of any other generation. However, when accounting for family size (by dividing average expenditures for each group by the average size of the consumer unit), overall healthcare expenditures are still highest for the Silent generation ($3,563). While the oldest group pays the most per member for insurance and medical supplies, the next-oldest group pays the most per member for medical services and drugs.[21]

Regarding entertainment, Baby Boomers have the largest average annual expenditure ($3,286). However, this amount is only about $55—or less than 2 percent—larger than that spent by Generation X ($3,231), and the difference is not statistically significant.[22] On average, Millennials spend only about two-thirds ($2,186) of the amounts spent by Generation Xers and Baby Boomers, and their expenditure is comparable to that of the Silent Generation ($2,276). However, it is nearly 2.5 times the amount spent by the GI generation ($884), whose lower spending may be related more to age than to income, family size, or other factors.

Within the major expenditure categories, there are four subcategories for which Millennials outspend other generations: rented dwellings, personal services, apparel for children under age 2, and other vehicles. Each of these cases, discussed below, has a logical explanation.

Because Millennials are most likely to be renters, it is reasonable to expect that they would spend the most for rent, on average. Note that the figures listed in CE tables should be interpreted with caution: they are not the average rents for those who rent, but the average rents for the whole population of consumer units, including those who do not rent. In fact, the average rent for all Millennials is higher only because of the larger proportion of renters in this generation.[23] When one compares average rents for renters across generations—a comparison performed after dividing the average rent for each group by the percentage of renters in that group—the data show that renting members of the GI generation pay the most for rent ($16,685) and that renting Millennials pay the least ($9,256).

Higher Millennial spending on personal services and apparel for children under age 2 may be explained by the fact that Millennials are most likely to have young children or to have friends who do. (Note that Millennials spend the most on gifts of apparel for children under age 2, as well as on apparel for their own children under age 2.)[24] Millennials and Generation Xers have the largest numbers of children under age 18 living in their consumer units (0.8 and 1.2, respectively). For Millennials, a few of these minors may actually be the reference person for the consumer unit, because, in 2015, the youngest reference person in the Diary Survey sample was age 15. Regardless, it is reasonable to expect that a larger portion of the Generation Xers' children are older than age 2, since even the youngest Generation Xers (35 years old) are old enough to have children whose age ranges from 3 to teenage, while only the oldest Millennials (34 years old) are. If so, this easily explains the apparel figure. Similar

logic could be applied to the "personal services" category, which consists of four items: babysitting and child care; care for the elderly and persons with disabilities; adult day care centers; and day care centers, nursery, and preschools. The first and fourth categories in this list are clearly related to young children, and therefore it is not surprising that, in total, Millennials spend a larger average amount on personal services than the other generations.

Finally, higher Millennial spending on "other vehicles" could also be explained by age. This category consists mainly of motorcycles, new and used,[25] and it is not surprising that the youngest generation would be most likely to purchase this type of vehicle. However, this result must be interpreted with caution because of the high variance associated with other-vehicle expenditures for all generations except the GI generation, for which there were no reports of other-vehicle expenditures in 2015.[26] (See appendix.)

Aggregate shares

Another useful tool for measuring spending differences across generations is the *aggregate share*. This share is the ratio of total spending on a particular good or service for a group of interest to the total spending on the same good or service for the population. For example, if $1 million worth of good X is sold in an economy and if group A accounts for $100,000 of that spending, the aggregate share of group A for good X is 10 percent. This share is particularly useful when compared with the proportion of the population for which group A accounts. For example, if group A accounts for 15 percent of the population, it is "underspending" its share; however, if it accounts for only 5 percent of the population, it is "overspending" its share.

Millennial consumer units accounted for about two in nine (22.6 percent) of all consumer units in 2015. Given the differences in income and expenditure patterns already discussed, it is not surprising that Millennials account for less than their share (19.0 percent) of total expenditures. (See table 2.) However, they account for more than their share for several items within the total. (See figure 3.) Again, none of the "overspending" categories comes as a surprise, and some of these categories have been described earlier in the article.[27]

Table 2. Aggregate shares of expenditures, by generation of reference person, 2015

Category	All reference persons	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Percent of consumer units	100.0	22.6	27.9	34.4	13.3	1.8
	($billion)	**Aggregate share (percent)**				
Average annual expenditures	$7,189.73	19.0	33.4	36.6	10.1	0.9
Food	$901.96	19.8	34.8	35.0	9.7	0.9
Food at home	$515.62	18.4	33.9	36.4	10.5	1.1
Cereals and bakery products	$66.51	18.7	33.5	35.0	11.9	1.2
Cereals and cereal products	$22.11	21.6	34.9	32.8	9.9	0.9
Bakery products	$44.40	17.2	32.8	36.1	12.9	1.4
Meats, poultry, fish, and eggs	$115.06	17.9	34.7	37.0	9.7	1.0
Beef	$31.48	17.2	36.0	37.0	9.5	0.7
Pork	$21.20	16.8	32.8	38.8	11.1	0.8

See footnotes at end of table.

Table 2. Aggregate shares of expenditures, by generation of reference person, 2015

Category	All reference persons	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Other meats	$15.96	18.3	35.2	36.7	9.1	1.1
Poultry	$22.15	20.8	35.2	34.9	8.3	1.0
Fish and seafood	$16.14	15.6	34.1	39.2	9.9	1.7
Eggs	$8.13	19.9	33.4	34.6	10.9	1.3
Dairy products	$53.01	18.6	33.6	35.8	11.0	1.2
Fresh milk and cream	$17.95	19.6	34.7	33.7	10.9	1.2
Other dairy products	$35.06	18.1	33.0	36.9	11.0	1.3
Fruits and vegetables	$98.74	18.2	33.8	35.9	11.2	1.3
Fresh fruits	$36.45	17.7	33.9	35.8	11.6	1.3
Fresh vegetables	$31.73	18.7	33.9	35.9	10.7	1.1
Processed fruits	$13.83	18.0	33.7	35.4	11.6	1.6
Processed vegetables	$16.73	18.3	33.7	36.5	10.7	1.0
Other food at home	$182.31	18.6	33.8	36.9	10.0	1.0
Sugar and other sweets	$19.93	14.5	37.2	36.6	11.1	1.1
Fats and oils	$14.30	17.3	32.4	37.7	11.8	1.2
Miscellaneous foods	$93.28	20.1	33.9	35.8	9.5	0.9
Nonalcoholic beverages	$48.06	18.4	32.9	37.6	10.2	1.2
Food prepared by consumer unit on out-of-town trips	$6.74	12.7	32.3	45.6	9.2	0.1
Food away from home	$386.34	21.7	35.9	33.2	8.7	0.6
Alcoholic beverages	$66.16	20.3	33.8	37.8	8.1	0.3
Housing	$2,364.38	20.2	33.3	34.2	10.9	1.3
Shelter	$1,379.70	21.3	33.9	33.0	10.2	1.5
Owned dwellings	$797.60	13.0	36.1	38.7	11.3	0.8
Mortgage interest and charges	$367.18	16.9	44.2	34.2	4.5	0.2
Property taxes	$245.76	10.1	31.6	42.3	14.6	1.3
Maintenance, repairs, insurance, other expenses	$184.66	8.9	26.2	43.0	20.4	1.5
Rented dwellings	$488.33	37.1	31.8	21.6	6.8	2.8
Other lodging	$93.77	10.6	26.7	43.7	18.5	0.5
Utilities, fuels, and public services	$498.99	17.3	31.7	37.4	12.4	1.2
Natural gas	$54.11	15.2	31.0	38.2	14.1	1.5
Electricity	$187.52	17.8	30.8	37.1	13.1	1.2
Fuel oil and other fuels	$14.94	10.9	25.0	40.4	22.3	1.4
Telephone services	$173.02	18.7	33.7	36.8	9.9	0.9
Residential phone service, VOIP, and phone cards	$41.65	7.7	25.3	43.8	20.7	2.5
Cellular phone service	$131.37	22.2	36.4	34.5	6.5	0.3
Water and other public services	$69.40	15.7	31.0	38.3	13.5	1.5
Household operations	$168.08	23.6	36.2	26.6	12.2	1.4
Personal services	$54.81	40.5	46.5	6.1	5.8	1.2

See footnotes at end of table.

Table 2. Aggregate shares of expenditures, by generation of reference person, 2015

Category	All reference persons	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Other household expenses	$113.26	15.4	31.3	36.5	15.3	1.6
Housekeeping supplies	$84.07	15.4	29.6	40.4	14.0	1.1
Laundry and cleaning supplies	$20.01	17.8	34.4	36.8	10.5	1.0
Other household products	$47.21	14.5	29.1	41.3	14.8	0.8
Postage and stationery	$16.85	14.8	25.6	42.0	15.8	2.1
Household furnishings and equipment	$233.54	19.3	32.1	38.2	9.9	0.6
Household textiles	$14.74	15.2	29.9	44.7	10.4	0.3
Furniture	$64.51	21.7	38.0	32.5	7.2	0.6
Floor coverings	$2.28	15.5	29.9	39.0	15.5	0.1
Major appliances	$34.44	16.7	31.6	37.9	13.0	0.8
Small appliances, miscellaneous housewares	$15.09	17.7	32.9	39.4	9.8	0.5
Miscellaneous household equipment	$102.48	19.7	28.9	40.7	10.4	0.6
Apparel and services	$237.12	20.9	36.9	36.1	6.1	0.2
Men and boys	$54.18	22.4	37.3	34.0	6.3	0.1
Men, 16 and over	$42.50	21.3	33.4	38.2	7.3	0.1
Boys, 2 to 15	$11.68	26.4	51.5	19.0	2.9	0.0
Women and girls	$89.54	18.8	36.5	38.3	6.6	0.3
Women, 16 and over	$76.50	18.8	32.8	41.2	7.3	0.3
Girls, 2 to 15	$13.04	18.6	58.0	21.4	2.3	0.1
Children under 2	$10.64	46.1	33.7	15.2	3.5	0.2
Footwear	$45.44	19.3	40.2	35.0	5.6	0.2
Other apparel products and services	$37.32	18.6	34.4	41.0	6.0	0.4
Transportation	$1,220.51	21.2	32.5	37.0	8.9	0.5
Vehicle purchases (net outlay)	$513.35	23.9	32.5	35.4	7.9	0.2
Cars and trucks, new	$251.28	21.3	27.6	42.5	8.3	0.3
Cars and trucks, used	$254.53	26.2	37.6	28.3	7.6	0.2
Other vehicles	$7.55	33.8	24.7	38.8	2.7	0.0
Gasoline and motor oil	$268.38	21.2	34.2	35.6	8.5	0.5
Other vehicle expenses	$353.93	17.9	31.1	40.3	10.2	0.8
Vehicle finance charges	$27.76	23.9	36.2	34.9	4.8	0.1
Maintenance and repairs	$107.47	16.3	32.5	40.3	10.5	0.5
Vehicle insurance	$138.53	15.5	28.2	44.4	11.1	1.4
Vehicle rental, leases, licenses, and other charges	$80.17	21.9	32.6	34.9	10.2	0.5
Public and other transportation	$84.85	18.5	33.2	37.6	10.3	0.4
Healthcare	$557.68	12.1	27.3	40.4	18.3	1.9
Health insurance	$382.40	12.4	28.0	39.8	17.8	2.0
Medical services	$101.64	12.5	28.0	40.6	17.6	1.3
Drugs	$54.54	9.7	21.8	44.2	22.5	1.9

See footnotes at end of table.

Table 2. Aggregate shares of expenditures, by generation of reference person, 2015

Category	All reference persons	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Medical supplies	$19.10	11.3	26.1	39.1	20.9	2.7
Entertainment	$365.03	17.4	31.7	39.8	10.7	0.6
Fees and admissions	$83.77	16.1	40.6	33.2	10.0	0.2
Audio and visual equipment and services	$139.18	18.9	31.2	36.3	12.5	1.1
Pets, toys, hobbies, and playground equipment	$83.89	16.5	29.2	43.9	10.5	0.4
Pets	$67.84	14.4	27.1	47.7	10.9	0.4
Toys, hobbies, and playground equipment	$16.05	25.0	38.4	27.5	8.6	0.4
Other entertainment supplies, equipment, and services	$58.20	16.7	24.0	51.6	7.6	0.1
Personal care products and services	$87.67	18.4	33.9	35.8	10.8	1.4
Reading	$14.65	14.5	22.9	37.9	21.5	3.4
Education	$168.85	25.7	36.1	35.7	2.4	0.1
Tobacco products and smoking supplies	$44.87	21.4	33.6	37.8	7.0	0.2
Miscellaneous	$111.87	13.2	34.2	36.6	14.9	1.1
Cash contributions	$233.57	9.3	31.4	40.9	16.8	1.6
Personal insurance and pensions	$815.41	18.3	37.4	40.1	4.1	0.1
Life and other personal insurance	$42.75	6.9	28.9	51.1	12.3	0.8
Pensions and Social Security	$772.66	18.9	37.9	39.5	3.6	0.1
Sources of income and personal taxes:						
Money income before taxes	$8,942.65	18.2	35.9	37.1	8.1	0.6
Wages and salaries	$6,987.59	21.4	41.3	34.8	2.4	0.1
Self-employment income	$560.43	11.2	35.6	45.2	8.0	0.0
Social Security, private and government retirement	$1,001.97	1.4	4.9	45.8	43.2	4.6
Interest, dividends, rental income, other property income	$223.14	2.7	15.2	50.1	29.6	2.4
Public assistance, Supplemental Security Income, Supplemental Nutrition Assistance Program (SNAP)	$72.91	24.9	30.2	38.0	6.2	0.7
Unemployment and workers' compensation, veterans' benefits, and regular contributions for support	$55.50	20.4	31.9	38.0	8.6	1.2
Other income	$41.11	48.2	22.0	21.3	7.6	0.9
Personal taxes (contains some imputed values)	$1,178.84	14.5	40.9	40.5	4.1	0.1
Federal income taxes	$913.32	13.8	40.9	40.9	4.4	0.1
State and local income taxes	$256.54	17.2	41.7	38.2	2.8	0.0

See footnotes at end of table.

Table 2. Aggregate shares of expenditures, by generation of reference person, 2015

Category	All reference persons	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Other taxes	$8.98	9.5	17.8	63.4	8.9	0.4
Income after taxes	$7,763.81	18.8	35.2	36.6	8.7	0.7
Addenda:						
Net change in total assets and liabilities	$891.02	-1.7	21.2	67.6	12.4	0.5
Net change in total assets	$1,983.27	19.0	31.8	41.3	7.6	0.3
Net change in total liabilities	$1,092.25	35.9	40.5	19.9	3.6	0.1
Other financial information:						
Other money receipts	$98.39	4.9	37.9	45.4	11.4	0.5
Mortgage principal paid on owned property	-$225.63	10.2	36.4	45.6	7.6	0.2
Estimated market value of owned home	$20,903.03	9.1	29.8	43.0	16.8	1.3
Estimated monthly rental value of owned home	$119.43	10.9	29.7	42.2	15.7	1.5
Gifts of goods and services, total[1]	$160.39	10.6	26.5	51.4	11.1	0.6
Food	$11.74	11.6	34.0	45.2	8.2	1.4
Alcoholic beverages	$1.86	13.4	24.9	52.2	10.0	0.2
Housing	$31.39	13.9	25.7	44.0	15.7	1.0
Housekeeping supplies	$3.89	10.6	23.4	46.8	19.3	0.6
Household textiles	$1.01	7.1	37.2	51.1	5.7	0.0
Appliances and miscellaneous housewares	$2.77	14.2	25.2	48.6	12.0	0.4
Major appliances	$1.02	13.1	28.9	37.0	21.1	0.0
Small appliances and miscellaneous housewares	$1.75	14.9	23.1	55.4	6.7	0.6
Miscellaneous household equipment	$6.13	20.2	18.2	49.6	11.6	0.5
Other housing	$17.60	12.8	28.1	40.2	17.5	1.4
Apparel and services	$32.52	15.7	26.1	52.4	6.4	0.2
Males, 2 and over	$7.54	16.5	31.8	41.4	10.6	0.1
Females, 2 and over	$8.22	12.7	28.0	52.3	7.5	0.3
Children under 2	$5.18	30.3	35.6	28.3	4.9	0.5
Other apparel products and services	$11.58	10.7	16.8	70.3	3.5	0.0
Jewelry and watches	$7.68	9.8	7.4	82.8	1.4	0.0
All other apparel products and services	$3.89	12.5	35.2	45.6	7.5	0.0
Transportation	$17.86	11.3	21.5	52.4	14.2	0.6
Healthcare	$4.39	2.3	20.1	44.0	33.7	0.0
Entertainment	$12.17	18.3	26.7	45.4	9.1	0.7
Toys, games, arts and crafts, and tricycles	$3.76	18.9	30.2	36.6	13.9	0.7
Other entertainment	$8.41	18.1	25.1	49.3	7.0	0.7

See footnotes at end of table.

Table 2. Aggregate shares of expenditures, by generation of reference person, 2015

Category	All reference persons	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Personal care products and services	$2.10	9.3	32.8	50.1	8.8	0.0
Reading	$0.73	20.6	19.3	45.0	15.2	0.0
Education	$35.73	1.5	29.7	61.6	7.1	0.1
All other gifts	$9.89	7.7	21.5	52.5	16.6	1.8

Notes:

(1) Gifts are a subset of, and are included in, expenditure totals.

Source: U.S. Bureau of Labor Statistics.

Figure 3. Population and aggregate expenditure shares for each generation, selected items, 2015
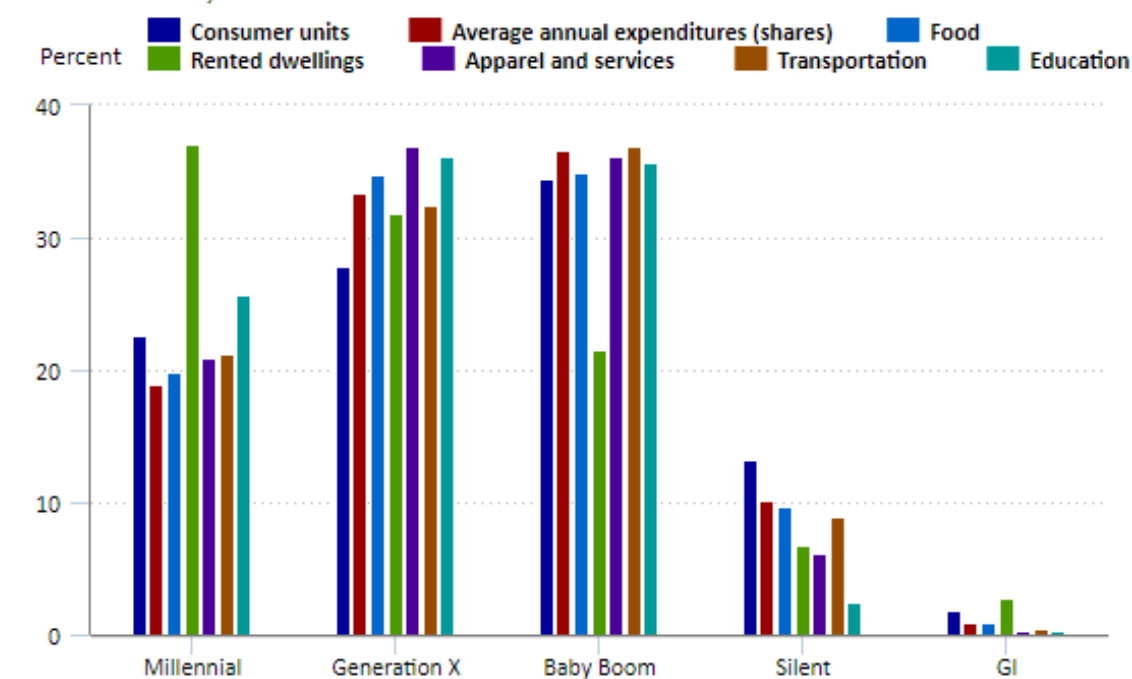
The first item in table 2 for which Millennials would appear to overspend their share is rented dwellings; that is, Millennials account for 37.1 percent of these expenditures. However, according to the figures in table 1, Millennials also account for 40 percent of renting consumer units.[28] Therefore, *renting* Millennials actually underspend their share.

Millennials also overspend their share for household operations (23.6 percent), largely because of their overspending on personal services (40.5 percent). Generation Xers also overspend their shares for these two items, probably for reasons discussed earlier (i.e., presence of young children in the consumer unit).

The next items in the Millennial "overspending" category are apparel and services for children under age 2 (46.1 percent, or more than twice the Millennial population share) and boys ages 2 to 15 (26.4 percent). However, the surprise is the item for which Millennials underspend: apparel for girls ages 2 to 15 (18.6 percent). It may be that apparel for girls has certain characteristics (such as price or durability) that would cause its share to differ in this way from the share for boys' apparel. Once again, the finding is interesting, but exploring the reasons behind it is beyond the scope of CE data.

Millennials overspend their share for another expenditure category related to children's apparel: toys, hobbies, and playground equipment (25.0 percent). Again, the presence of young children in Millennial families would easily explain this overspending. However, it seems that the overspending applies only to Millennials' own children, not to those in other families (friends or relatives), because Millennials, along with the GI generation, underspend their share for gifts of toys, games, arts and crafts, and tricycles. There could be many reasons for this finding. For example, given that Millennials have the most children and the lowest income before taxes (at least among the "working" generations), they may have less to spend on gifts of toys and related items for children in other families. It also may be that gifts of this type are more naturally the province of the grandparents. (Note that, at 50 years of age in 2015, the oldest Generation Xers plausibly have young grandchildren. Members of the GI generation also may have young grandchildren, but it is likely that these grandchildren are older.) Because table 2 does not show the percentage of consumer units reporting expenditures, it is not possible to ascertain whether Millennials are purchasing fewer gifts (or at least making less frequent shopping trips for them) than older generations or if they purchase the same, or even greater, number of gifts (or with the same or greater frequency) but spend less in total. Examining these possibilities would require an analysis of microdata and, therefore, is beyond the scope of this article.

Perhaps more interesting are the findings for transportation expenditures. Millennials overspend their share for vehicle purchases and finance charges (both 23.9 percent). This is due to the group overspending its shares for used cars and trucks (23.9 percent) and other vehicles (33.8 percent). Again, vehicles in the latter category are likely to be motorcycles, new or used.

Finally, Millennials overspend their share for education (25.7 percent). Given their age and educational attainment, they likely invest in their own education. Generation Xers and Baby Boomers also overspend their shares for education. However, this overspending, particularly that for Baby Boomers, is more likely due to education expenditures for children or other family members than to similar expenditures for Boomers themselves, especially since Boomers are old enough to have college-age children.

Total expenditure shares

Given that Millennials have the lowest average income of the "working" generations, it is not surprising that they spend less, on average, on most goods and services in terms of absolute dollars. It is also not surprising that they underspend their share for most goods and services when these goods and services are examined in the context of consumer expenditures in the economy as a whole.

Analyzing *total expenditure shares* can be helpful in comparing consumer welfare in cases such as these, in which aggregate-share differences are not so revealing. These shares are the ratio of expenditures on a given item or in a given category of items to the sum of expenditures on all items. For example, if a consumer unit spends $15 on food and $300 on all goods and services including food, the total expenditure share for food is 5 percent ($15/$300).[29]

Total expenditure shares for food are often used as a measure of consumer welfare, a practice dating back to a finding by Ernst Engel in 1857. Engel, who at one time headed the Prussian statistical department, found that as income increases, the share of income allocated to food decreases, even if food expenditures increase in actual levels. This outcome occurs when income increases by a larger percentage than the concomitant increase in food expenditures. The measure of total expenditure shares for food can be used as a welfare indicator, because the larger the share of income allocated to food (an absolute necessity of life), the smaller the remaining proportion that could be allocated to everything else.[30]

With respect to total food expenditures, Millennials and their generational neighbors, Generation Xers, spend larger shares (13.1 percent each) than the other generational groups. (See table 3.) But these shares are not much larger: the shares of the other groups range from 12.0 percent (Baby Boomers) to 12.4 percent (GI generation). However, within the food budget, food-at-home shares generally rise across the generations, from 6.9 percent for Millennials to 8.6 percent for the GI generation. The opposite is true for food-away-from-home shares, which fall sharply and steadily from 6.1 percent for Millennials to 3.7 percent for the GI generation. This may be due to decreased mobility and family size for the oldest generation, rather than differences in economic welfare.

Table 3. Total expenditure shares, by generation of reference person, 2015 (percent)

Category	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Average annual expenditures	$47,112.78	$66,981.40	$59,646.33	$42,347.68	$29,040.59
Food	13.1	13.1	12.0	12.1	12.4
Food at home	6.9	7.3	7.1	7.5	8.6
Cereals and bakery products	0.9	0.9	0.9	1.1	1.2
Cereals and cereal products	0.3	0.3	0.3	0.3	0.3
Bakery products	0.6	0.6	0.6	0.8	0.9
Meats, poultry, fish, and eggs	1.5	1.7	1.6	1.5	1.8
Beef	0.4	0.5	0.4	0.4	0.4
Pork	0.3	0.3	0.3	0.3	0.3
Other meats	0.2	0.2	0.2	0.2	0.3
Poultry	0.3	0.3	0.3	0.3	0.3
Fish and seafood	0.2	0.2	0.2	0.2	0.4
Eggs	0.1	0.1	0.1	0.1	0.2
Dairy products	0.7	0.7	0.7	0.8	1.0
Fresh milk and cream	0.3	0.3	0.2	0.3	0.3
Other dairy products	0.5	0.5	0.5	0.5	0.7
Fruits and vegetables	1.3	1.4	1.3	1.5	1.9
Fresh fruits	0.5	0.5	0.5	0.6	0.7
Fresh vegetables	0.4	0.4	0.4	0.5	0.5

See footnotes at end of table.

Table 3. Total expenditure shares, by generation of reference person, 2015 (percent)

Category	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Processed fruits	0.2	0.2	0.2	0.2	0.3
Processed vegetables	0.2	0.2	0.2	0.2	0.3
Other food at home	2.5	2.6	2.5	2.5	2.8
Sugar and other sweets	0.2	0.3	0.3	0.3	0.3
Fats and oils	0.2	0.2	0.2	0.2	0.3
Miscellaneous foods	1.4	1.3	1.3	1.2	1.3
Nonalcoholic beverages	0.6	0.7	0.7	0.7	0.9
Food prepared by consumer unit on out-of-town trips	0.1	0.1	0.1	0.1	0.0
Food away from home	6.1	5.8	4.9	4.6	3.7
Alcoholic beverages	1.0	0.9	0.9	0.7	0.3
Housing	35.0	32.8	30.7	35.7	47.2
Shelter	21.6	19.5	17.3	19.5	31.3
Owned dwellings	7.6	12.0	11.7	12.5	10.1
Mortgage interest and charges	4.6	6.8	4.8	2.3	0.9
Property taxes	1.8	3.2	3.9	5.0	5.0
Maintenance, repairs, insurance, other expenses	1.2	2.0	3.0	5.2	4.2
Rented dwellings	13.2	6.5	4.0	4.6	20.5
Other lodging	0.7	1.0	1.6	2.4	0.7
Utilities, fuels, and public services	6.3	6.6	7.1	8.6	8.7
Natural gas	0.6	0.7	0.8	1.1	1.2
Electricity	2.4	2.4	2.6	3.4	3.4
Fuel oil and other fuels	0.1	0.2	0.2	0.5	0.3
Telephone services	2.4	2.4	2.4	2.4	2.2
Residential phone service, VOIP, and phone cards	0.2	0.4	0.7	1.2	1.6
Cellular phone service	2.1	2.0	1.7	1.2	0.7
Water and other public services	0.8	0.9	1.0	1.3	1.5
Household operations	2.9	2.5	1.7	2.8	3.6
Personal services	1.6	1.1	0.1	0.4	1.0
Other household expenses	1.3	1.5	1.6	2.4	2.7
Housekeeping supplies	0.9	1.0	1.3	1.6	1.4
Laundry and cleaning supplies	0.3	0.3	0.3	0.3	0.3
Other household products	0.5	0.6	0.7	1.0	0.5
Postage and stationery	0.2	0.2	0.3	0.4	0.5
Household furnishings and equipment	3.3	3.1	3.4	3.2	2.2
Household textiles	0.2	0.2	0.3	0.2	0.1

See footnotes at end of table.

Table 3. Total expenditure shares, by generation of reference person, 2015 (percent)
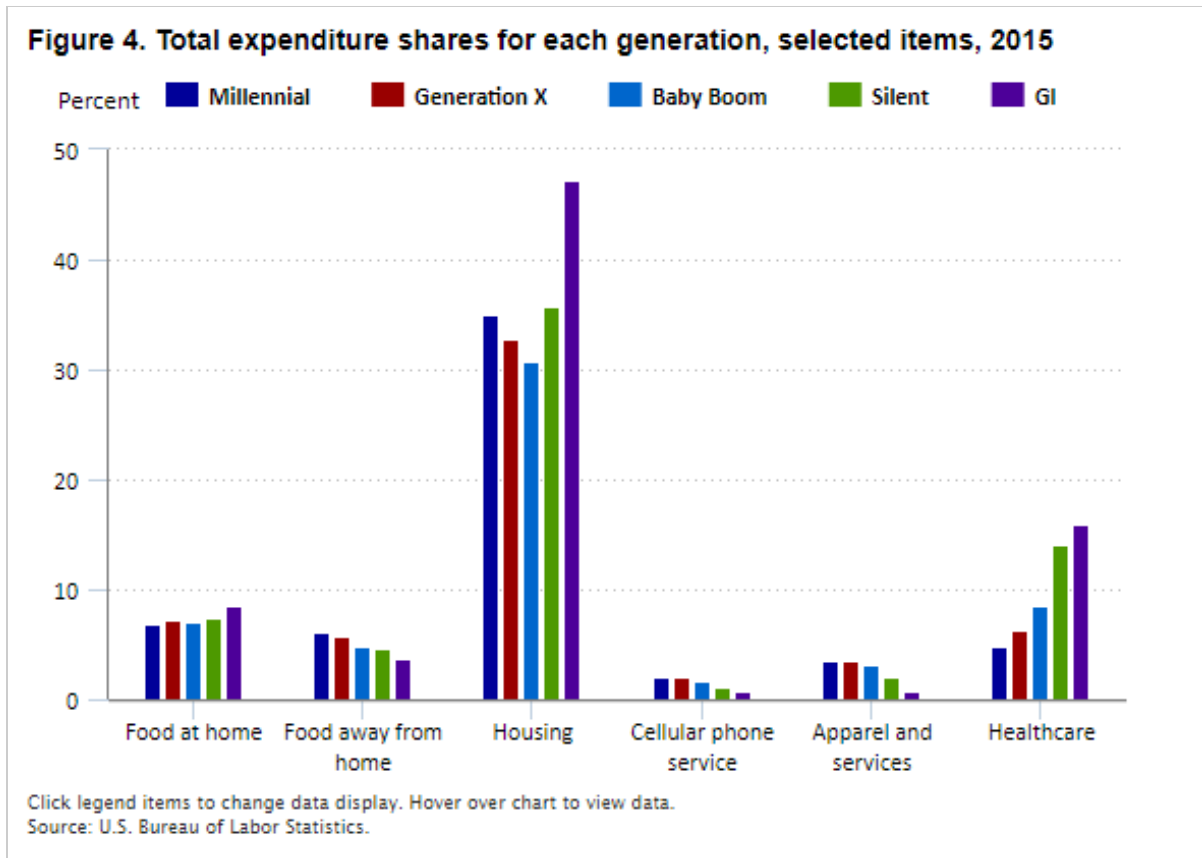
Category	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Furniture	1.0	1.0	0.8	0.6	0.6
Floor coverings	0.0	0.0	0.0	0.0	0.0
Major appliances	0.4	0.5	0.5	0.6	0.4
Small appliances, miscellaneous housewares	0.2	0.2	0.2	0.2	0.1
Miscellaneous household equipment	1.5	1.2	1.6	1.5	1.0
Apparel and services	3.6	3.6	3.2	2.0	0.8
Men and boys	0.9	0.8	0.7	0.5	0.1
Men, 16 and over	0.7	0.6	0.6	0.4	0.1
Boys, 2 to 15	0.2	0.3	0.1	0.0	0.0
Women and girls	1.2	1.4	1.3	0.8	0.3
Women, 16 and over	1.1	1.0	1.2	0.8	0.3
Girls, 2 to 15	0.2	0.3	0.1	0.0	0.0
Children under 2	0.4	0.1	0.1	0.1	0.0
Footwear	0.6	0.8	0.6	0.4	0.1
Other apparel products and services	0.5	0.5	0.6	0.3	0.2
Transportation	18.9	16.5	17.1	14.9	8.6
Vehicle purchases (net outlay)	9.0	6.9	6.9	5.6	1.9
Cars and trucks, new	3.9	2.9	4.1	2.9	1.0
Cars and trucks, used	4.9	4.0	2.7	2.7	0.9
Other vehicles	0.2	0.1	0.1	0.0	0.0
Gasoline and motor oil	4.2	3.8	3.6	3.2	1.9
Other vehicle expenses	4.6	4.6	5.4	5.0	4.3
Vehicle finance charges	0.5	0.4	0.4	0.2	0.1
Maintenance and repairs	1.3	1.5	1.6	1.6	0.8
Vehicle insurance	1.6	1.6	2.3	2.1	2.8
Vehicle rental, leases, licenses, and other charges	1.3	1.1	1.1	1.1	0.6
Public and other transportation	1.1	1.2	1.2	1.2	0.5
Healthcare	4.9	6.3	8.5	14.1	15.9
Health insurance	3.5	4.5	5.8	9.4	11.6
Medical services	0.9	1.2	1.6	2.5	2.0
Drugs	0.4	0.5	0.9	1.7	1.6
Medical supplies	0.2	0.2	0.3	0.6	0.8
Entertainment	4.6	4.8	5.5	5.4	3.0
Fees and admissions	1.0	1.4	1.1	1.2	0.2
Audio and visual equipment and services	1.9	1.8	1.9	2.4	2.3
Pets, toys, hobbies, and playground equipment	1.0	1.0	1.4	1.2	0.5

See footnotes at end of table.

Table 3. Total expenditure shares, by generation of reference person, 2015 (percent)

Category	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Pets	0.7	0.8	1.2	1.0	0.4
Toys, hobbies, and playground equipment	0.3	0.3	0.2	0.2	0.1
Other entertainment supplies, equipment, and services	0.7	0.6	1.1	0.6	0.1
Personal care products and services	1.2	1.2	1.2	1.3	1.8
Reading	0.2	0.1	0.2	0.4	0.7
Education	3.2	2.5	2.3	0.6	0.2
Tobacco products and smoking supplies	0.7	0.6	0.6	0.4	0.1
Miscellaneous	1.1	1.6	1.6	2.3	1.9
Cash contributions	1.6	3.1	3.6	5.4	5.7
Personal insurance and pensions	10.9	12.7	12.4	4.6	1.3
Life and other personal insurance	0.2	0.5	0.8	0.7	0.5
Pensions and Social Security	10.7	12.2	11.6	3.9	0.8
Gifts of goods and services, total[1]	1.2	1.8	3.1	2.5	1.4
Food	0.1	0.2	0.2	0.1	0.2
Alcoholic beverages	0.0	0.0	0.0	0.0	0.0
Housing	0.3	0.3	0.5	0.7	0.5
Housekeeping supplies	0.0	0.0	0.1	0.1	0.0
Household textiles	0.0	0.0	0.0	0.0	0.0
Appliances and miscellaneous housewares	0.0	0.0	0.1	0.0	0.0
Major appliances	0.0	0.0	0.0	0.0	0.0
Small appliances and miscellaneous housewares	0.0	0.0	0.0	0.0	0.0
Miscellaneous household equipment	0.1	0.0	0.1	0.1	0.0
Other housing	0.2	0.2	0.3	0.4	0.4
Apparel and services	0.4	0.4	0.6	0.3	0.1
Males, 2 and over	0.1	0.1	0.1	0.1	0.0
Females, 2 and over	0.1	0.1	0.2	0.1	0.0
Children under 2	0.1	0.1	0.1	0.0	0.0
Other apparel products and services	0.1	0.1	0.3	0.1	0.0
Jewelry and watches	0.1	0.0	0.2	0.0	0.0
All other apparel products and services	0.0	0.1	0.1	0.0	0.0
Transportation	0.1	0.2	0.4	0.4	0.2
Healthcare	0.0	0.0	0.1	0.2	0.0
Entertainment	0.2	0.1	0.2	0.2	0.1

See footnotes at end of table.

Table 3. Total expenditure shares, by generation of reference person, 2015 (percent)

Category	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Toys, games, arts and crafts, and tricycles	0.1	0.0	0.1	0.1	0.0
Other entertainment	0.1	0.1	0.2	0.1	0.1
Personal care products and services	0.0	0.0	0.0	0.0	0.0
Reading	0.0	0.0	0.0	0.0	0.0
Education	0.0	0.4	0.8	0.3	0.0
All other gifts	0.1	0.1	0.2	0.2	0.3

Notes:

[1] Gifts are a subset of, and are included in, expenditure totals.

Source: U.S. Bureau of Labor Statistics.

The total expenditure share for housing exhibits an interesting pattern. (See figure 4.) The share declines from 35.0 percent for Millennials to 30.7 percent for Baby Boomers, the oldest of the "working" groups. The share then increases for the older "nonworking" generations, peaking at nearly half of total expenditures (47.2 percent) for the GI generation. Again, this may be a function of limited mobility and other age-related health concerns. For example, members of the older generation spend less in actual dollars on items such as food away from home, apparel and services, transportation, and entertainment, all of which are associated with activities outside the home. All else equal, their total expenditures are also lower than those of younger consumers who purchase these items. In other words, even if a member of a younger generation spends the same amount on housing as that spent by a member of the oldest generation, the fact that the younger member is also spending more on food away from home (and the other items mentioned earlier) increases his or her total expenditures and diminishes the share allocated to housing.

Figure 4. Total expenditure shares for each generation, selected items, 2015

Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

The Millennial expenditure share for cellular phone services, an element of housing (included in utilities), also exhibits an interesting pattern, especially when contrasted with aggregate expenditure shares. Millennials (22.6 percent of all consumer units) slightly underspend their aggregate share for cellular phone services (22.2 percent). It is actually Generation X that substantially overspends on cellular phone services, accounting for 36 percent of these expenditures but constituting 28 percent of all consumer units. Baby Boomers only slightly overspend their share, while the older generations substantially underspend theirs. (See table 2 for details.) However, in terms of total expenditures shares, Millennials and Generation Xers have the largest shares—2.1 percent and 2.0 percent, respectively. The shares continue to decrease for older generations (1.7 percent for Baby Boomers, 1.2 percent for Silents, and 0.7 percent for GIs).

Expenditure shares for apparel are similar across the three "working" generations, ranging from 3.2 to 3.6 percent. However, the shares decline sharply for the Silent (2.0 percent) and GI (0.8 percent) generations. Again, this is likely because, in addition to having smaller families, the "retired" generations do not require apparel for work.[31]

Finally, the healthcare shares are interesting not so much for their direction (increasing with age), but for their magnitude. The healthcare share of Millennials (4.9 percent) is only about one-third of the share of the GI generation (14.1 percent). The main reason for this difference appears to be health insurance payments, which account for 3.5 percent of Millennial total expenditures, but 11.6 percent of GI total expenditures. The most similar shares are those allocated to medical supplies, which account for 0.2 percent of Millennial total expenditures and 0.8 percent of GI total expenditures.

Budget shares

Similar to total expenditure shares are *budget shares*. Here, instead of computing the ratio of some small-item spending to total expenditures, one computes the ratio of that small-item spending to the total expenditures for other related items. For example, instead of computing expenditures for cereal and bakery products as a share of total expenditures, one computes them as a share of food-at-home expenditures. Likewise, food-at-home expenditures can be computed as a share of total food spending. (See table 4.)

Table 4. Budget shares for selected items, by generation of reference person, 2015 (percent)

Category	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Food	100.0	100.0	100.0	100.0	100.0
Food at home	53.0	55.8	59.4	61.7	69.7
Food away from home	47.0	44.2	40.6	38.3	30.3
Healthcare	100.0	100.0	100.0	100.0	100.0
Health insurance	70.1	70.3	67.6	66.6	72.5
Medical services	18.9	18.7	18.3	17.5	12.4
Drugs	7.8	7.8	10.7	12.0	10.0
Medical supplies	3.2	3.3	3.3	3.9	5.0
Entertainment	100.0	100.0	100.0	100.0	100.0
Fees and admissions	21.3	29.4	19.1	21.5	6.8
Audio and visual equipment and services	41.6	37.4	34.8	44.5	75.2
Pets, toys, hobbies, and playground equipment	21.8	21.2	25.4	22.6	15.0
Pets	15.4	15.9	22.3	19.0	12.1
Toys, hobbies, and playground equipment	6.3	5.3	3.0	3.6	2.9
Other entertainment supplies, equipment, and services	15.4	12.0	20.7	11.4	3.0

Source: U.S. Bureau of Labor Statistics.

Food budget

Similarly to total expenditure shares, food-budget shares provide some interesting insights. (See table 5.) For example, while cereal and bakery products constitute only about 1 percent of total expenditures (regardless of generation), they constitute about 12 to 15 percent of food-at-home expenditures (or 1 out of every 7 or 8 dollars spent on food at home). Therefore, budget shares provide a more meaningful context for analysis. For example, one might be interested in learning which group allocates the largest share of its food-at-home budget to "healthful" foods (e.g., fresh fruits and vegetables) and the smallest share to "special treat" foods (e.g., sugar and other sweets).
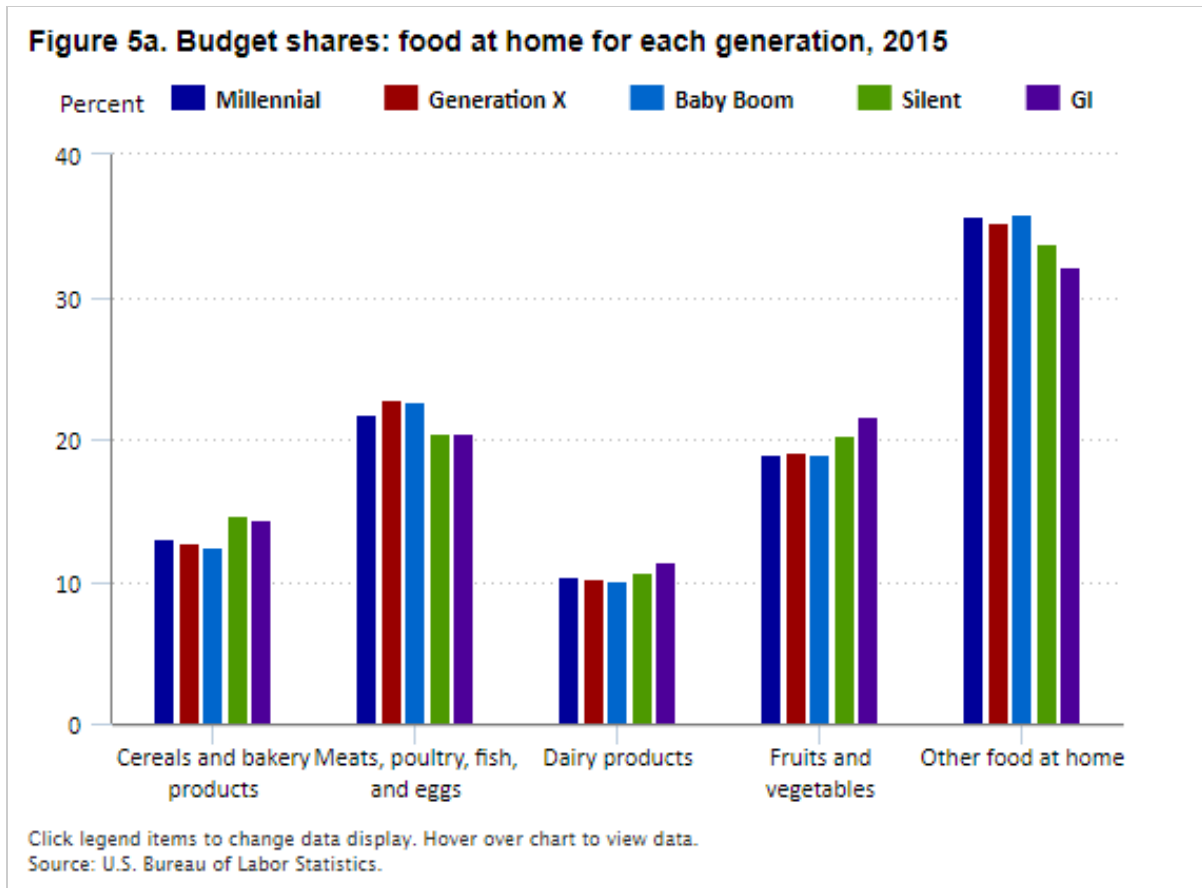
Table 5. Additional budget shares for selected items, by generation of reference person, 2015 (percent)

Category	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Food at home	100.0	100.0	100.0	100.0	100.0
Cereals and bakery products	13.1	12.7	12.4	14.6	14.3
Cereals and cereal products	5.0	4.4	3.9	4.0	3.6
Bakery products	8.1	8.3	8.5	10.6	10.7
Meats, poultry, fish, and eggs	21.8	22.8	22.7	20.5	20.4
Beef	5.7	6.5	6.2	5.5	4.1
Pork	3.8	4.0	4.4	4.4	3.1
Other meats	3.1	3.2	3.1	2.7	3.0
Poultry	4.9	4.5	4.1	3.4	3.7
Fish and seafood	2.7	3.1	3.4	2.9	4.8
Eggs	1.7	1.6	1.5	1.6	1.8
Dairy products	10.4	10.2	10.1	10.7	11.4
Fresh milk and cream	3.7	3.6	3.2	3.6	3.7
Other dairy products	6.7	6.6	6.9	7.1	7.7
Fruits and vegetables	18.9	19.1	18.9	20.3	21.6
Fresh fruits	6.8	7.1	7.0	7.8	8.5
Fresh vegetables	6.3	6.1	6.1	6.2	6.1
Processed fruits	2.6	2.7	2.6	3.0	3.9
Processed vegetables	3.2	3.2	3.3	3.3	3.1
Other food at home	35.7	35.2	35.8	33.8	32.2
Sugar and other sweets	3.1	4.2	3.9	4.1	3.7
Fats and oils	2.6	2.6	2.9	3.1	2.9
Miscellaneous foods	19.8	18.0	17.8	16.4	15.3
Nonalcoholic beverages	9.3	9.0	9.6	9.0	10.1
Food prepared by consumer unit on out-of-town trips	0.9	1.2	1.6	1.1	0.2
Food at home, by type of food					
Cereals and bakery products	100.0	100.0	100.0	100.0	100.0
Cereals and cereal products	38.4	34.7	31.1	27.6	25.3
Bakery products	61.6	65.3	68.9	72.4	74.7
Meats, poultry, fish, and eggs	100.0	100.0	100.0	100.0	100.0
Beef	26.2	28.4	27.4	26.9	19.9
Pork	17.3	17.4	19.3	21.2	15.2
Other meats	14.2	14.1	13.7	13.0	14.6
Poultry	22.3	19.5	18.1	16.6	18.0
Fish and seafood	12.2	13.8	14.8	14.3	23.3
Eggs	7.8	6.8	6.6	8.0	9.0
Dairy products	100.0	100.0	100.0	100.0	100.0
Fresh milk and cream	35.6	35.0	31.9	33.6	32.7
Other dairy products	64.4	65.0	68.1	66.4	67.3
Fruits and vegetables	100.0	100.0	100.0	100.0	100.0
Fresh fruits	35.9	37.0	36.8	38.4	39.3
Fresh vegetables	33.1	32.2	32.2	30.7	28.3

See footnotes at end of table.

Table 5. Additional budget shares for selected items, by generation of reference person, 2015 (percent)

Category	Millennial (born 1981 and later)	Generation X (born 1965 to 1980)	Baby Boom (born 1946 to 1964)	Silent (born 1929 to 1945)	GI (born 1928 and earlier)
Processed fruits	13.9	13.9	13.8	14.6	18.2
Processed vegetables	17.1	16.9	17.2	16.3	14.2
Other food at home	100.0	100.0	100.0	100.0	100.0
Sugar and other sweets	8.6	12.0	10.9	12.1	11.6
Fats and oils	7.3	7.5	8.0	9.2	9.1
Miscellaneous foods	55.5	51.2	49.7	48.5	47.5
Nonalcoholic beverages	26.1	25.7	26.9	26.8	31.2
Food prepared by consumer unit on out-of-town trips	2.5	3.5	4.6	3.4	0.5
Housing outlay shares	100.0	100.0	100.0	100.0	100.0
Basic shelter and utilities (including phone)	78.5	78.6	77.1	73.6	83.5
Rent or mortgage, maintenance, taxes, and related costs	61.3	60.4	56.7	51.1	65.4
Utilities, fuels, and public services (included in basic shelter)	17.2	18.2	20.4	22.5	18.1
Other lodging (excluded from basic shelter)	2.0	2.9	4.5	6.3	1.4
Household operations	7.9	7.0	4.9	7.4	7.6
Housekeeping supplies	2.6	2.9	3.7	4.3	2.9
Household furnishings and equipment	9.0	8.6	9.8	8.4	4.6

Source: U.S. Bureau of Labor Statistics.

Within food at home, most of the major categories of spending show similar shares across the generations. (See figure 5a.) However, within many of these categories, there are notable differences.

Figure 5a. Budget shares: food at home for each generation, 2015

Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Cereal and bakery products. As already noted, the budget share for cereal and bakery products ranges from 12 to 15 percent. Because cereal and cereal products account for similar shares across generations (3.6 to 5.0 percent), the difference is due to bakery products. While the younger generations (Millennials through Boomers) allocate less than 9 percent of their food-at-home budget to these products, the older generations (Silents and GIs) allocate nearly 11 percent. However, because the category of bakery products includes a large range of items (white bread, cookies, crackers, biscuits and rolls, cakes and cupcakes, etc.), it is difficult to draw any conclusions from this observation alone.

Meat products. More interesting is the meat, poultry, fish, and eggs budget (or, simply, the "meat budget"). Once again, the younger generations (Millennials through Boomers) spend slightly larger shares (22 to 23 percent) of their food budgets on these items than do the older generations (20 to 21 percent). However, within the meat budget, larger differences are observed. For example, the oldest generation spends less than 1 of every 5 dollars (19.9 percent) of the meat budget on beef, compared with more than 1 of every 4 dollars (26.2 to 28.4 percent) for the other generations. (See figure 5b.)

Figure 5b. Budget shares: meat for each generation, 2015

Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.
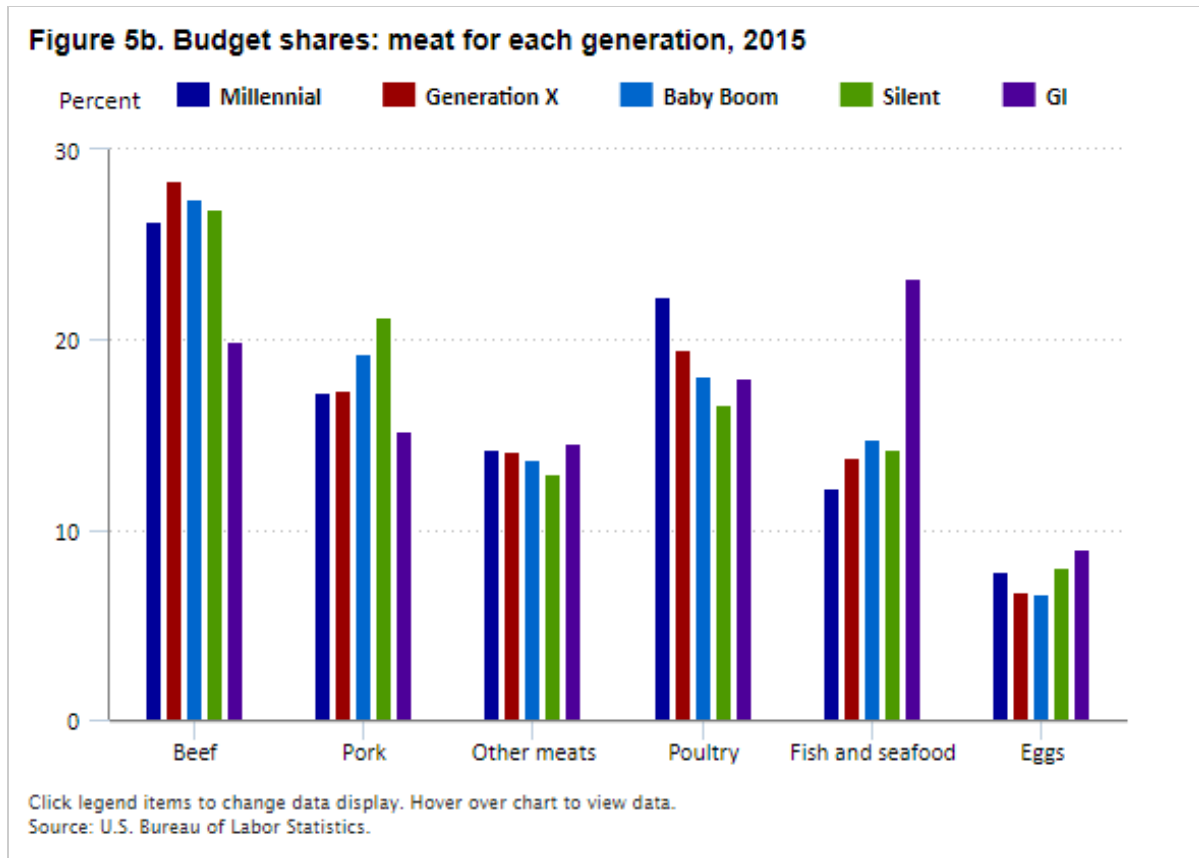
Similarly, the oldest generation allocates the smallest share (15.2 percent) of the meat budget to pork, while the next-oldest generation allocates the largest share (21.2 percent). However, as with bakery products, the pork category includes many items, some inherently high in salt or preservatives (bacon, canned ham, sausage) and others not (pork chops). From the data in the experimental table, it is not clear which (or if all) of these products account for the generational difference.

For poultry, the share declines steadily across generations, from a high of 22.3 percent for Millennials to a low of 16.6 percent for Silents. However, the share increases again for the GI generation, to 18.0 percent, nearly the same as the percentage for Boomers (18.1 percent). In contrast, the oldest group spends by far the largest share on fish and seafood, 23.3 percent, compared with 12.2 to 14.8 percent for the other groups.

For eggs, an item in the poultry budget, the Millennial budget share (7.8 percent) is closer to the shares of the Silent and GI generations (8.0 percent and 9.0 percent, respectively) than to the shares of the more similar in age Baby Boomers and Generation Xers (6.8 percent and 6.6 percent, respectively). This may be because, as noted in a previous article on food expenditures, "older family members grew up when eggs were considered a quintessential part of any healthful breakfast, while the younger family members [i.e., the Baby Boomers when the article was written] grew up hearing about the relationship of cholesterol to heart disease."[32] The article also stated that "if the younger families are raising their children to be concerned about egg consumption, the relationship of egg consumption to age will probably continue; that is, all families will decrease consumption, but older families will continue to purchase eggs more frequently than younger families, with the gap between older and younger families continuing to shrink."[33] However, in 2000, the American Heart Association (AHA) changed its recommendations on egg consumption,[34] reversing its "highly publicized 1970s recommendation…to restrict egg consumption and limit

dietary cholesterol intake to ≤300 mg/d."[35] The shares pattern described here is consistent with the prediction of the literature, only reversing when the AHA changed its recommendations. The Baby Boomers and Generation X, who would have been young adults either when the 1970s recommendation was announced or when it was reversed in 2000, allocate the smallest portion of the meat budget to eggs, while Millennials, the oldest of whom were young adults when the AHA changed recommendations, allocate a larger portion to eggs. Nevertheless, care must be taken when interpreting these shares. They do not directly account for factors such as the percentage of each age group reporting egg expenditures or the quantities each group purchased.[36]

Taken as a whole, the preceding results suggest that, compared with other generations, Millennials spend a larger share of the meat budget on poultry and a smaller share on fish and seafood. At the other end of the age and spending spectra, the GI generation spends smaller shares on beef and pork and a larger share on fish and seafood. In addition to the aforementioned health and nutritional concerns, other factors, such as income and family size, would differ across generations, and these differences would affect the allocation of the meat budget. Relative prices (e.g., is beef more or less expensive per pound than pork?) would also affect that allocation, but they are not easily available.[37]

Fruits and vegetables. Budget shares for fruits and vegetables also show generational differences, with Millennials, Generation Xers, and Baby Boomers spending about half of their budgets for each item (fresh or processed). However, the older generations spend decidedly larger shares on fruit (fresh or processed): 53 percent for the Silent generation and over 57 percent for the GI generation. (See figure 5c.) Fruits and vegetables generally constitute a larger share of food-at-home expenditures for these groups (more than 20 percent) than they do for the younger groups (less than 20 percent). This result, coupled with the fact that the older groups spend smaller shares on meat (under 21 percent) than the younger groups (22 to 23 percent), may again indicate differences between the nutritional needs of older and younger consumers (e.g., older consumers may have greater concerns about cholesterol or saturated fats).

Figure 5c. Budget shares: fruits and vegetables for each generation, 2015

Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.
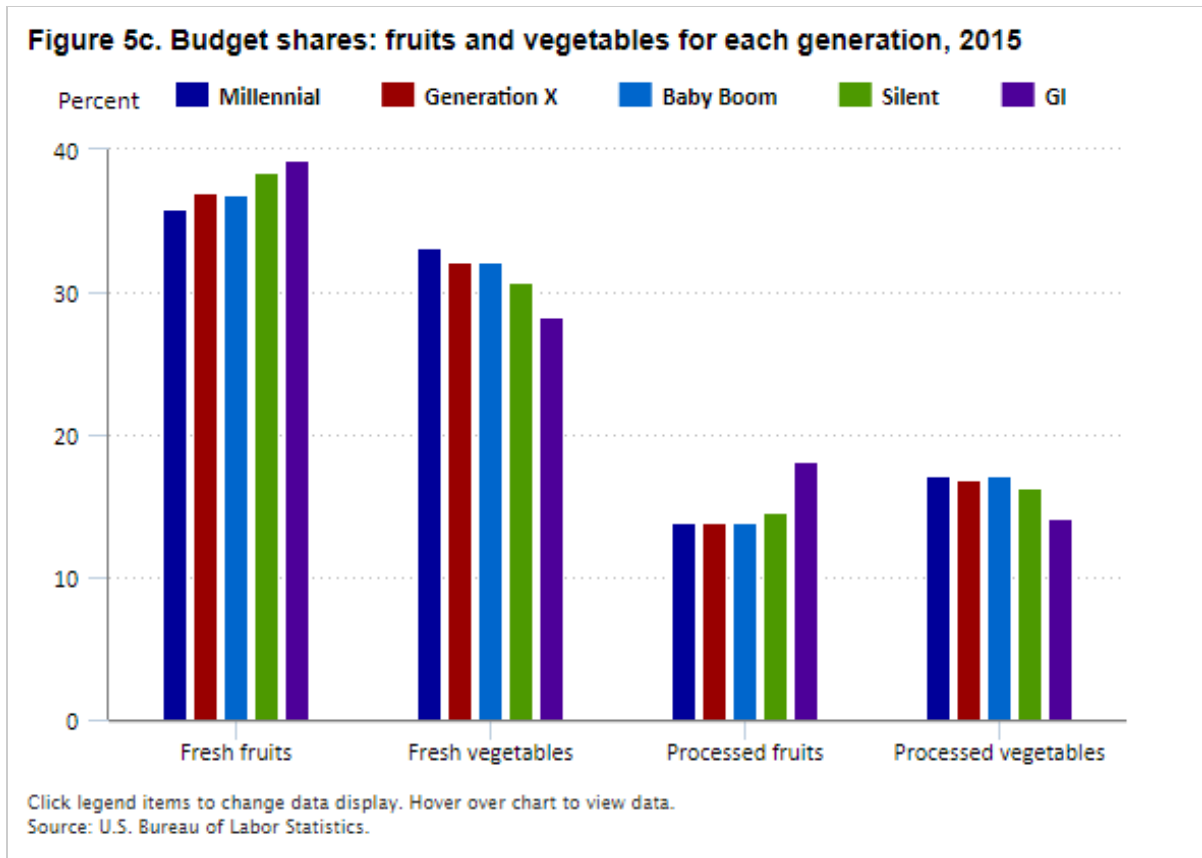
Other food at home. The share of "other food at home" in the total food budget is also interesting in the aggregate and its components. First, as was the case for other major items in the food-at-home budget, it is similar for the "working" generations (ranging from 35 percent for Boomers and Generation Xers to 36 percent for Millennials) and lower for the "retired" generations (ranging from 32 percent for GIs to 34 percent for Silents). A major reason for the difference between younger and older generations is the share of other food at home allocated to "miscella-neous foods." (See figure 5d.) As its name implies, this category includes a diverse array of foods. Many of these are "convenience foods," such as frozen meals, canned and packaged soups, prepared salads, and prepared desserts, which require relatively little preparation time, an important consideration for those who are outside the home most of the day.[38] Others are foods associated with children, such as baby food, as well as potato chips and other snacks. Sometimes, these items ("convenience foods" and "children's foods") overlap: some children will gladly eat canned pasta, but will not touch a fresh vegetable.[39] Given that Millennials are both of working age and the most likely of the groups to have young children—and that the oldest groups are of retirement age and the least likely to have young children—it is not surprising that the share of other food at home allocated to miscella-neous foods decreases substantially from the Millennial (56 percent) to the GI generation (48 percent).

Figure 5d. Budget shares: other food at home for each generation, 2015
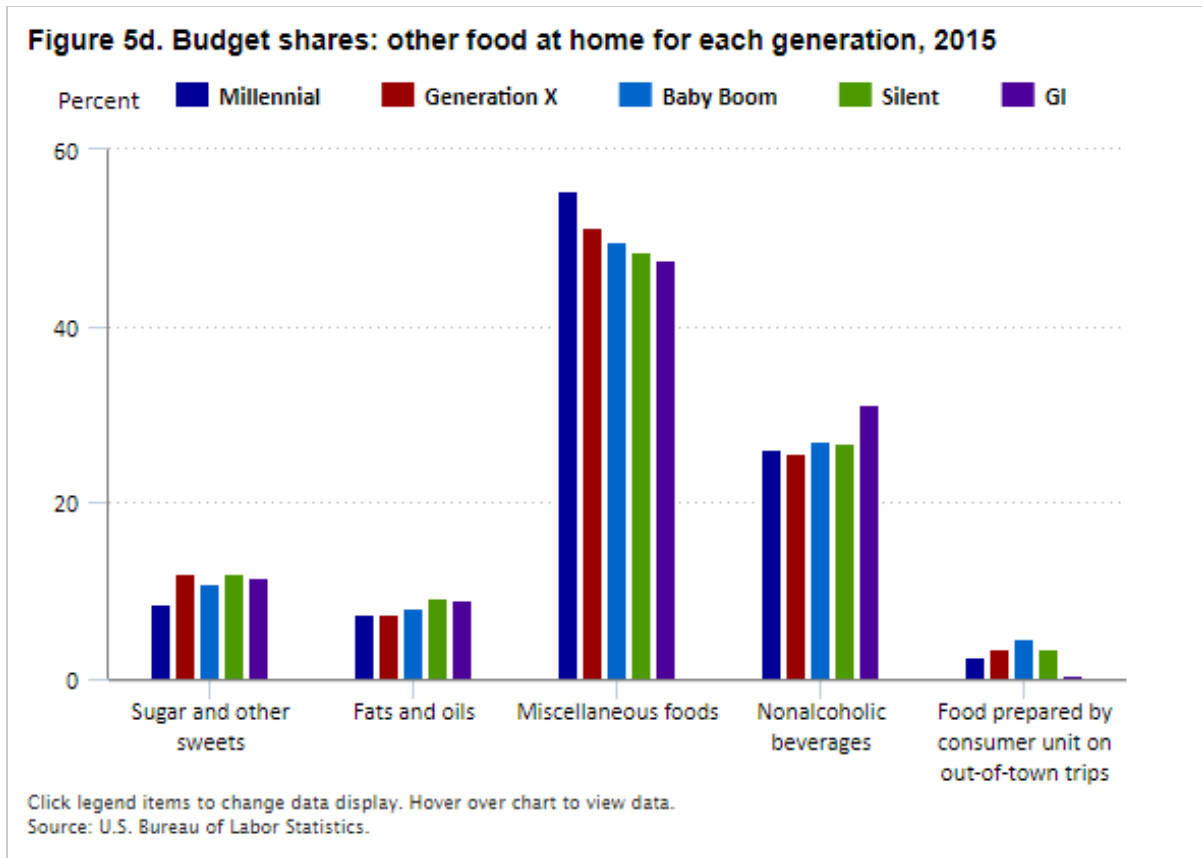
Despite their higher likelihood of having young children, Millennials allocate the smallest share (less than 9 percent) of other food at home to sugar and sweets. However, there is no clear generational pattern for this share, as Generation Xers and Silents allocate nearly identical shares (12.0 and 12.1 percent, respectively), followed by GIs and Boomers (11.6 and 10.9 percent, respectively).

Similarly, Millennials spend the smallest share on fats and oils (7.3 percent), while the oldest groups spend the largest shares (over 9 percent). However, the data do not allow for specific conclusions to be drawn, as the types of fats and oils are not listed in the experimental table. The category includes items as diverse as margarine, salad dressing, nondairy cream and imitation milk, and peanut butter, along with a general category of "fats and oils." Each of these items has different nutritional characteristics. For example, peanut butter is high in monounsaturated fat ("healthful fat") and protein. Nondairy cream and imitation milk are not necessarily rich in either of these (or any other) healthful nutrients. Therefore, if the budget shares of the older groups include only peanut butter and those of Millennials include only nondairy cream and imitation milk, the higher shares for the older groups may indicate better nutritional outcomes.

Housing budget

In considering the housing budget, the discussion adopts an "outlays" instead of "expenditure" approach to analysis. The basic difference between approaches is that, for technical reasons, expenditures on owned housing include mortgage interest but not principal; outlays for housing include principal.[40]

Given this, the interesting feature of the allocation of housing outlays is the similarities, rather than the differences, across generations. The differences are largely expected and occur mostly between the GI generation and the younger generations. For example, the GI generation spends the largest share of the housing budget on basic shelter (i.e., rent or mortgage, plus maintenance, taxes, and related costs) and utilities, in part because it spends the smallest amount on items such as household furnishings and equipment (less than 5 percent, compared with more than 8 percent for the other groups). In comparison, all non-GI generations allocate similar shares to basic shelter and utilities (74 to 79 percent), housekeeping supplies (3 to 4 percent), and household furnishings and equipment (8 to 10 percent). The only exception is household operations, the share for which has a V-shaped relationship with age. Starting at 8 percent of housing outlays for Millennials, the share decreases to 5 percent for Baby Boomers, before increasing back to 8 percent for the GI generation. This relationship is not surprising given that a major component of household operations is personal services, a category including both child care (babysitting and child care; day care centers, nursery, and preschools) and adult care (care for elderly, invalids, handicapped, etc.; and adult day care centers). Presumably, Millennials spend more on child care, and the GI generation spends more on adult care.

Healthcare budget

An analysis of cross-generational differences in spending on healthcare reveals some notable findings. First, the levels of total healthcare expenditures increase substantially for each generation from Millennials ($2,325) to Silents ($5,976), before falling for the GI generation ($4,626). Even when adjusted for family size, which peaks for Generation X (3.2), spending per member is still higher for the Silent generation ($3,515) than for the GI generation ($3,304), whose members presumably require more care than those who are younger. As noted previously, this result may be explained by differences in medical insurance cost and coverage. In any case, although Generation Xers spend, on average, nearly twice as much on health insurance ($2,986) as Millennials ($1,630),[41] both groups allocate about seven-tenths of their healthcare budgets to health insurance. (See figure 6.) Their shares for other components of healthcare expenditures are also nearly identical: 19 percent for medical services, 8 percent for drugs, and 3 percent for medical supplies. Likewise, the next two generations (Boomers and Silents) allocate similarly to each other, although differently from the other groups. They allocate 67 to 68 percent to health insurance, 18 percent to medical services, 11 to 12 percent to drugs, and 3 to 4 percent to medical supplies. In contrast, the oldest group spends nearly three-fourths (73 percent) on health insurance, with by far the smallest share of any generation (12 percent) allocated to medical services and the largest (although not substantially so) share to medical supplies (5 percent). The remainder (10 percent) is allocated to drugs.

Figure 6. Budget shares: healthcare for each generation, 2015

Percent   ■ Millennial   ■ Generation X   ■ Baby Boom   ■ Silent   ■ GI

Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.
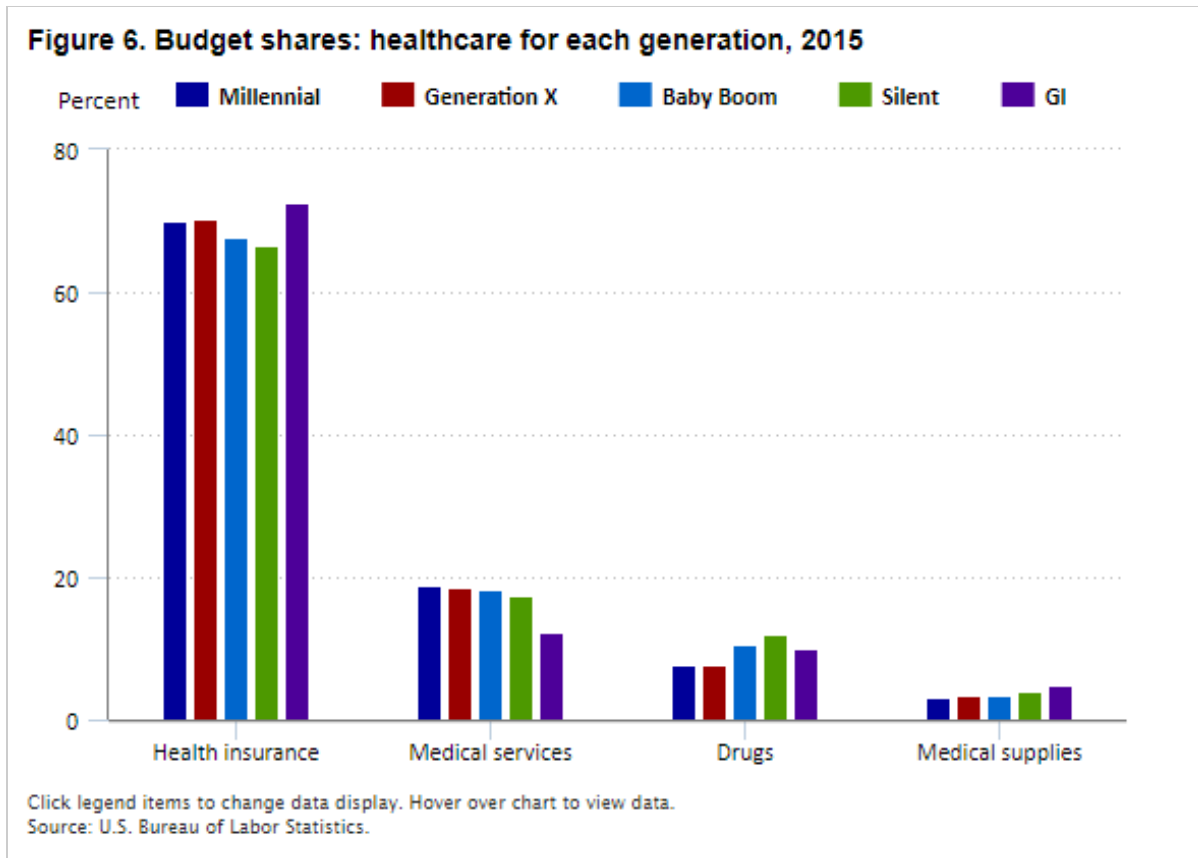
Entertainment budget

Finally, with respect to the entertainment budget (see figure 7), the easiest patterns to explain are not those for Millennials, but those for the GI generation. Among all groups examined, the GI generation has the lowest level of expenditure on entertainment ($885) and, of this expenditure, allocates the smallest shares to fees and admissions (6 percent), pets (12 percent), and toys, hobbies, and playground equipment (under 3 percent). In contrast, members of this group spend, by far, the largest share on audio and visual equipment and services (73 percent). All of these findings may be influenced by the lack of mobility associated with age: fees and admissions require a visit to a theater, an arena, or another venue; toys, hobbies, and playground equipment, if purchased, are more likely to be for children outside the consumer unit and therefore less frequently purchased; pets require care; and audio and visual equipment and services include cable and satellite television services, which, by definition, are to be enjoyed inside the home.

Figure 7. Budget shares: entertainment for each generation, 2015

Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.
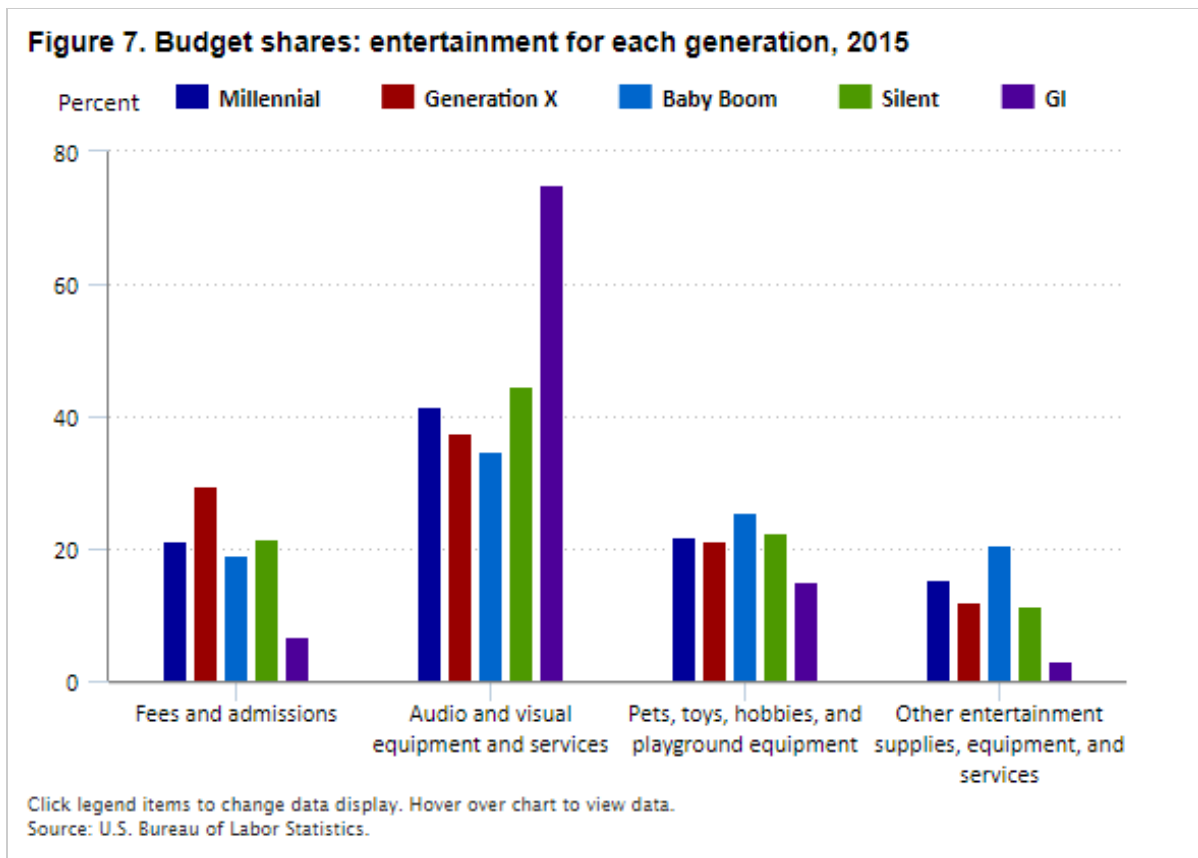
Across the other generations, spending on entertainment does not exhibit any discernable patterns. For example, shares for fees and admissions are substantially larger for Generation Xers (29 percent) than for the other groups (19 to 22 percent). However, Millennials spend more than Generation Xers or Baby Boomers on audio and visual equipment, perhaps because that category includes video games (software, hardware, and accessories) in addition to the aforementioned cable and satellite television. Nevertheless, among those younger than the GI generation, the largest share for audio and visual equipment is allocated by the Silent Generation (45 percent), whose total entertainment expenditures ($2,276) are similar, on average, to those of Millennnials ($2,186). Although Millennials spend less on entertainment ($2,186) than Generation Xers ($3,231), both groups allocate nearly identical shares to pets (15 and 16 percent, respectively) and toys, hobbies, and playground equipment (5 and 6 percent, respectively). More interesting is the contrast among the younger generations, in particular that associated with their spending allocations to the category of other entertainment supplies, equipment, and services. This category includes items related to outdoor recreation (boats, bicycles, campers, camping, hunting and fishing equipment, etc.), photography, and catered affairs (live entertainment and rental of party equipment). Despite the fact that, on average, Generation Xers and Baby Boomers have nearly identical entertainment expenditures ($3,231 and $3,286, respectively), the Generation Xers allocate a substantially smaller share to other entertainment (12 percent) than Boomers (21 percent). Furthermore, despite spending about 50 percent less on total entertainment ($2,186), Millennials allocate 15 percent to other entertainment, a share that is between the shares of the two next older groups.

Summary and conclusions

Researchers are concerned about economic conditions across generations for various reasons. For example, those interested in policymaking or policy outcomes are concerned with measuring these conditions to better understand the successes and challenges faced by each generation—an understanding that could help promote the general welfare effectively. In addition, nonresearchers are naturally interested in this topic. For example, those in the middle of the lifecycle may wonder how they compare with their peers, how well-off their children or parents are, or, by looking at an older generation, how they might better prepare for their own future.

While the CE program has traditionally provided tables showing expenditure patterns by standard age groups (under age 25, age 25 to 34, etc.), in 2015 it first posted experimental tables (2014 data) showing expenditures by the five (generally recognized) generations living today: the Millennial generation, Generation X, the Baby Boom generation, the Silent generation, and the GI generation. The production of experimental (now regular) tables is particularly important at a time when so much attention has shifted to the youngest of these groups, the Millennials. Born in 1981, the oldest Millennials are entering middle age (they turned 34 in 2015, when the data for this article were collected) and will be followed by a new generation of young adults, whose name will undoubtedly emerge in popular media and culture soon.

This article analyzed data from the 2015 experimental table, the third of its type.[42] Several comparisons across generations were presented. One of the most interesting findings of the analysis was that the racial and ethnic differences across generations are widening. Millennials and Generation Xers are more likely to be Black or Hispanic than other generations. In addition, the Millennial generation is better educated, on average, than previous generations, with its members being more likely to have at least some college experience.

Some differences across generations are expected, reflecting general lifecycle patterns. For example, family size peaks with Generation Xers and is smallest for the GI generation. The same pattern holds for vehicle ownership rates and average annual income before taxes. Homeownership rates peak for the Silent generation, perhaps because members of the GI generation who move to assisted-living (or similar) facilities are considered "renters" in the CE.

Given that income and family size are so different for each generational cohort—and that the effects of these factors on expenditures at the total or component level are self-evident—the article examined various expenditure shares. The general objective was to see whether the portions of the dollars spent on categories of goods or services (e.g., food at home) differ across generations, and if so, what this might mean for the economic well-being of these groups.

Often, the results are surprising not because they reveal differences across generations, but because they reveal so many similarities. For example, given that Millennials have lower incomes, it is not surprising that their share of aggregate expenditures for most items is smaller than their population share. (Millennials accounted for about 23 percent of all consumer units in 2015, but less than 23 percent of total spending on many goods and services.) However, each generation allocates between 12 and 13 percent of total expenditures to food. Similarly, regardless of generation, food at home accounts for 7 to 9 percent of total expenditures, while food away from home accounts for 4 to 6 percent of total expenditures. This finding is particularly important within an "Engel" framework, in which the larger a group's share of income (or total expenditures) allocated to items other than food (particularly other than food at home), the better off economically that group is considered to be. This allocation pattern means that the group has more money left over to spend on goods and services that are less necessary to life than food.

However, as shown earlier, the analysis of total expenditure shares masks interesting differences within expenditure categories. For example, within the food budget, the shares allocated to food at home and food away from home vary substantially by generation. The share allocated to food at home rises considerably with each generation, from 53 percent for Millennials to 70 percent for GIs. The converse is true for food away from home, the share for which declines from 47 percent for Millennials to 30 percent for the GI generation. This pattern is undoubtedly related to mobility, but also to working status. Since retired older consumers do not go out to eat lunch with coworkers, do not visit an employer's cafeteria, etc., they do not make purchases for some items that would be considered food away from home.

As noted throughout the text, comparisons of expenditure patterns across generations should be made and interpreted carefully. Differences in demographics and income, rather than generational factors (cultural influences, tastes, etc.), may account for much of the observed generational differences. Controlling for these factors is not possible with the tabular data displayed here. However, these data are useful for researchers interested in examining patterns within particular generations (how young adults are faring economically, how much of aggregate expenditures are due to the Baby Boomers, etc.). For this reason, starting with the release of 2016 CE data on August 29, 2017, the experimental tables were upgraded to "regular" tables. For those for whom controlling for demographics (i.e., performing "all else equal" comparisons) is important or for whom neither the standard age groups (under age 25, etc.) nor the current generational breakdowns (Millennials, etc.) are useful, the CE program provides microdata files available for free download.[43] On August 30, 2016, data from 2015 were posted as the latest addition to a series starting with results from 1996. For the first time in history, 20 years of free microdata became available, constituting (or at least covering) a generation in themselves.

Appendix: the role of variance in interpreting CE data

In comparisons of two or more groups, the mean of the data is a useful statistic. The mean describes an outcome for each member of a group, if all members of that group were the same. For example, mean income is the amount each group member would receive if all members pooled their incomes and then divided the total equally among themselves. In the case of CE data, mean expenditures indicate the amount each consumer unit in a given demographic group would contribute toward aggregate (i.e., total population) expenditures by all consumer units in that group for a particular good or service (again, with each consumer unit in the group spending the same amount for the good or service).

However, the mean can be identical for two groups, even if the contribution of each member to that mean is different. For example, consider two groups of 20 consumers. In the first group, each consumer spends $5 for food away from home on a certain day; in the second group, half of the consumers spend $10, and the other half do not purchase food away from home. In total, each group spends $100. The mean expenditure for each group is $5, but the variance, or the spread of the expenditures around that mean, is different: it is $0 for the first group and positive (about $26.32) for the second.[44] In an extreme case, suppose only one consumer in an otherwise similar third group spends $100 for food away from home that day, and all others in the group spend $0. The mean of the third group is also $5, but the variance ($500) is larger than that of any other group considered.[45] As these examples illustrate, the larger the variance, the greater the spread of values among the individual members of the group relative to the mean of the group when means (and group sizes) are identical. Therefore, it is useful to

consider the variance in order to get an idea of how widely the observations within a group are spread around the mean.

Nevertheless, because the means published in CE tables are derived from samples, not the complete U.S. population, variances computed from the samples are less important in themselves than their use is in estimating how well the sample reflects the entire group of interest (i.e., the U.S. population). To understand this, consider the following example.

Suppose that each member of the three groups described earlier is one of an identical large number (say, 5,000) of identical members in a larger group (e.g., in group 1, 100,000 members each spend $5; in group 2, 50,000 spend $0 and 50,000 spend $10; and, in group 3, 95,000 spend $0 and 5,000 spend $100). Together, these "enhanced" groups form a new population. The mean expenditure for the population is $5. However, suppose that for some reason (e.g., cost), it is not feasible to collect information from every member of the population of interest (the 300,000 consumers in this example). Therefore, a random subset of, say, 100 members from the population is sampled. The mean is expected to be about, but not exactly, $5. A different random subset, even of the same size, is expected to have a mean slightly different from that of the first sample. If this process were repeated multiple times, the mean of the sample means is expected to be exactly, or very close to, $5. However, there would be variance across those means. The larger the variance of the means, the more variable are the data in the population, and the less confidence the analyst has that any given sample mean is close to the population mean. Therefore, the "variance of the mean" can be a useful tool in interpreting data.

Because collecting data from an entire population (i.e., conducting a census) or from multiple samples is usually infeasible because of cost or other reasons, one sample is generally collected for analysis. Such is the case for the CE. Nevertheless, the variance of the mean can be estimated from the single sample. In an unweighted sample (i.e., each observation represents only itself), the variance of the mean is estimated to be the variance of the sample divided by the total number of observations in the sample. For example, if group 2 in the first example above had been a random sample of 20 members (10 members spending $0 and 10 members spending $10) from the full (300,000) population (instead of being a population itself), the variance of the mean would be $1.32 (i.e., $26.32/20). However, CE sample data are weighted to reflect the population (i.e., each participating consumer unit represents itself and a number of others like it), so computation of the variance of the mean is more complicated, and explaining it fully is beyond the scope of this article.[46] Regardless, the square root of the variance of the mean (unweighted or weighted) is known as the standard error (SE) of the mean for the expenditure (or other variable) of interest.

Note that the experimental table from which the data in table 1 of this article are derived includes information about the "coefficient of variation" (CV). In CE tables, the CV is computed by dividing the SE of the expenditure by the mean expenditure. Technically, this is the relative standard error of the mean, as the numerator of the "true" CV is the standard deviation (i.e., the square root of the variance before dividing it by the number of observations in the sample), not the SE. Regardless, the CV provides information on how variable the data are relative to the mean. As with the variance of the mean, the larger the CV, the greater the spread of the data around the mean, and the less confidence the analyst has that a particular mean is close to the population mean. However, unlike the "absolute" SE, the CV is a "relative" number, conveniently expressed as a percentage, helping to compare different types of data. For example, $1,000 might seem like a large number for the SE of the mean derived from a given sample. But if that number is associated with a mean of $10,000, the CV is 10 percent, and if the number is

associated with a mean of $100,000, the CV is only 1 percent. So, while each sample has the same absolute SE, the variation around the mean is relatively less for the second sample than for the first.

For this reason, the experimental table includes the following caveat for several expenditures, including other-vehicle purchases for each generation except the GI generation: "CV greater or equal to 25; estimates are unreliable because of high variance." While the CVs from the experimental table are not included in table 1, the items to which the caveat applies are marked with an asterisk in table 1. For example, among the younger generations, the CV listed in the experimental table for other vehicles ranges from 31.82 (Baby Boomers) to 41.67 (Generation X). For the Silent generation, the CV jumps to 88.25.[47]

In this example, the large CVs likely result from a low percentage of consumer units reporting expenditures for other vehicles. This percentage is available in unpublished, but releasable, CE tables that include detailed expenditure and other information. However, the CE program did not produce an unpublished, but releasable, generational table for 2015. Nevertheless, one should recall that the oldest Millennials were 34 years old in 2015. Therefore, the two youngest age groups included in the unpublished, but releasable, Interview Survey table for 2015 (i.e., those under age 25 and those 25 to 34 years old) compose the Millennial group. In fact, these two groups have the highest percentages of consumer units reporting expenditures for other vehicles: 0.60 percent and 0.27 percent, respectively. Note that these values are not 60 percent and 27 percent, but 60 percent of 1 percent and 27 percent of 1 percent, respectively. In 2016, the first year for which the unpublished, but releasable, generational table is available, the situation changes. Millennials and Generation Xers have the highest percentages of consumer units reporting expenditures (0.35 percent and 0.34 percent, respectively), followed by Baby Boomers (0.16 percent) and Silents (0.11 percent). But the mean expenditures for Generation Xers ($104.71) are now higher than those for Millennials ($78.57) or any other group (Baby Boomers: $45.79; Silents: $23.11).

All told, expenditures with large CVs should be interpreted with caution. However, in the current example, it is not surprising that Millennials would have relatively large expenditures on motorcycles, whereas GIs would have none.

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NOTES

1 A recent article in the *Washington Post* finds that optimism is on the decline, but reports that this "theory" about the next generation has been published in polls dating back to 1942. See Dana Milbank, "Americans' optimism is dying," *The Washington Post*, August 12, 2014, https://www.washingtonpost.com/opinions/dana-milbank-americans-optimism-is-dying/2014/08/12/f81808d8-224c-11e4-8593-da634b334390_story.html?utm_term=.db799074ac02.

2 An Internet search of the phrase "next generation better off" yields countless hits in support of one or the other side of the debate, with some arguments citing developments in technology as evidence for the "better off" side and others pointing to high student loan debt or recent sluggish economic growth as evidence for the "worse off" side.

3 See *Consumer Expenditure Survey* (U.S. Bureau of Labor Statistics), https://www.bls.gov/cex/.

4 Perhaps one might say that the old bane of the Baby Boomers, the "generation gap," is at last receding.

5 "The whys and hows of generations research" (Pew Research Center, September 2015), p. 3, http://www.people-press.org/2015/09/03/the-whys-and-hows-of-generations-research/.

6 Data on generational expenditures for 2016 were published on August 29, 2017, and are available at https://www.bls.gov/cex/tables.htm.

7 "The whys and hows of generations research," p. 3.

8 Many sources, including the Pew report (see ibid.), ascribe this name to a 1951 article in *Time Magazine*.

9 The Pew report uses the name "Greatest generation" because members of this cohort "fought and won World War II, and became the subject of a best-selling book by [television journalist] Tom Brokaw." (See "The whys and hows of generations research," p. 3.) The webpage providing the link to the CE experimental table (https://www.bls.gov/cex/csxresearchtables.htm) uses both "Greatest" and "GI" to qualify this generation. This article uses the term "GI generation" because "GI" is more descriptive and less subjective than "Greatest."

10 The inconsistencies between CE and Pew definitions result from a misspecification in the instructions used to develop the tables. The CE program addressed the error when the tables were changed from "experimental" to "regular" with the release of 2016 data (August 29, 2017). Nevertheless, any differences between results obtained from experimental tables and results obtained from microdata (with the correct birth years) are presumably too small to be of practical consequence. Therefore, the data analyzed in this article are derived from data in the experimental table. It is worth noting that the very finding of definitional inconsistencies justifies the reasoning for posting experimental tables—that is, to correct or improve the tables before officially publishing them. The CE program strongly encourages all data users to report any such findings or provide other comments related to all tables (experimental or published) and data products. (To do so, or for more information about CE data, data users can contact the CE program by sending an email to CEXINFO@bls.gov.)

11 This holds for both the Interview Survey and the Diary Survey, which are described in the next section.

12 More information on reference persons, consumer units, and other CE-specific terms is available in the CE glossary (https://www.bls.gov/cex/csxgloss.htm).

13 All CE experimental tables are available at https://www.bls.gov/cex/csxresearchtables.htm. For the table used in this article, see the "Generational tables" section and click the link for the 2015 generational table.

14 Although the oldest Millennials were age 34 in 2015 (the year studied in this article), no consensus has been reached on either a name or a "start date" for the succeeding generation. A June 2017 article by the Pew Research Center still defines Millennials as those 18 to 35 years of age; see Abigail Geiger, "Millennials are the most likely generation to use public libraries" (Pew Research Center, June 21, 2017), http://www.pewresearch.org/fact-tank/2017/06/21/millennials-are-the-most-likely-generation-of-americans-to-use-public-libraries/. Nevertheless, consensus on a start date may develop soon. Shortly before publication of this article, on March 1, 2018, the Pew Research Center defined 1997 as the first birth year of the unnamed "post-Millennial" generation (http://www.pewresearch.org/fact-tank/2018/03/01/defining-generations-where-millennials-end-and-post-millennials-begin/), meaning that the youngest Millennial would have turned 18 during the year studied here (2015).

Related to this, although there were consumer-unit reference persons as young as 15 years old in the 2015 CE data, studying a group with only three ages possible (15, 16, or 17) is not feasible and would yield no meaningful results given that the age group is in no way similar to the Millennials or other groups. For example, most Millennials, and all older groups, are of legal age, whether defined as 18 and older or 21 and older. Therefore, those in the "post-Millennial" generation are not even legally allowed to make certain expenditure decisions that the older groups are. For these reasons, no "post-Millennial" column currently exists. However, it is presumed that as the "post-Millennial" group emerges, the CE program will update its tables to include that group's expenditure patterns. Similarly, when the sample sizes for the GI and Silent generations become too small for statistical reliability, they will be combined with each other ("Silents or older") or with later generations ("Boomers and beyond"), or dropped entirely from the table.

15 Before 2015, the year in which the data for this article were collected, consumer units were interviewed five consecutive times. However, the first interview was only for bounding purposes. For example, if the respondent reported purchasing a $500 refrigerator with certain characteristics in both the first and second interviews, the interviewer would confirm whether this reporting was for the same refrigerator (a single purchase reported twice) or for two separate purchases of identical refrigerators. The bounding interview "was dropped at the beginning of 2015 to save money and reduce respondent burden and collection costs" (https://www.bls.gov/opub/hom/cex/design.htm). For more information about the dropping of the bounding interview, see Ian Elkin, "Recommendation regarding the use of a CE bounding interview" (U.S. Bureau of Labor Statistics, May 2013), https://www.bls.gov/cex/research_papers/pdf/Recommendation-Regarding-the-Use-of-a-CE-Bounding-Interview.pdf.

16 Before 2015, income data were collected in the second and fifth interviews, and data on assets and liabilities were collected in the fifth interview. Since 2015, income data have been collected in the first and fourth interviews, and data on assets and liabilities have been collected in the fourth interview. As indicated in the previous note, this change results from the dropping of the bounding interview, whereby the former "second" interview has become the new "first."

17 Intriguingly, homeownership rates mostly rise across generations, but are smaller for the GI generation than for the Silent generation. This result may be due to the fact that members of the GI generation who move to assisted-living (or similar) facilities are considered "renters" in the CE.

18 Note that Hispanics can be of any race, including Black or African American. It is not clear from the experimental table how many Hispanic reference persons are non-Black or how many Black or African-American reference persons are Hispanic.

19 The major categories are selected because their items are presumably purchased by all or nearly all consumers, regardless of age. These categories also account for nontrivial shares of total expenditures.

20 The role of Medicare in the relationship is not clear. This is because all members of the Silent and GI generations are eligible for Medicare, yet the average consumer unit of the GI generation pays less for health insurance ($3,356) than the average consumer unit of the Silent generation ($3,980). According to medicare.gov (The Official U.S. Government Site for Medicare), Medicare Part A (hospital insurance) is usually premium free if the reference person or spouse paid Medicare taxes while working (https://www.medicare.gov/your-medicare-costs/part-a-costs/part-a-costs.html). Medicare Part B (medical insurance) has a premium that rises with income. However, the 2017 premium only starts to rise with income for single-filer taxpayers (single person or married, filing separately) whose income in 2015 was more than $85,000. For married couples filing jointly and having incomes larger than $170,000, the 2017 premium is the same. The same rule applied to 2016 premiums, but the increase was based on income in 2014 (https://www.medicare.gov/your-medicare-costs/part-b-costs/part-b-costs.html). Presumably, similar rules applied to those actually paying the premiums in 2015, the year of expenditures covered in the experimental table. According to a webpage administered by the Social Security Administration, "Since 2007, higher-income beneficiaries have paid a larger percentage of their Medicare Part B premium than most. Depending on their income, these higher-income beneficiaries will pay premiums that amount to 35, 50, 65 or 80 percent of the total cost of coverage" (https://faq.ssa.gov/en-us/Topic/article/KA-02166). In addition, eligible consumers can choose to purchase Medicare Part D, which provides prescription drug coverage and follows income and premium rules similar to those for Part B (https://www.medicare.gov/part-d/costs/premiums/drug-plan-premiums.html).

Because the average income for both the Silent and GI generations is well below the increased-premium threshold, the higher premium for higher income is not a likely explanation for the difference in health insurance expenditures. However, the average income for the Silent generation is much higher than that for the GI generation, and it is possible that there are some high-income consumer units in the Silent generation sample that incur the higher premiums and increase the mean health insurance premium. Nevertheless, this possibility cannot be tested without examining the CE microdata. In addition, it is possible that the Silent generation consumer units are more likely to purchase Medicare Part D coverage (or other supplemental insurance plans) than are the GI generation consumer units. Once again, exploring this possibility would require investigation of CE microdata (detail on subcategories of health insurance expenditures is not included in the experimental table on which the present research is based) and is beyond the scope of this work.

21 Again, this finding may lend credence to the "better insurance" hypothesis, but exploring this hypothesis in detail is beyond the scope of this article, whose primary focus is on Millennials (who, incidentally, also spend the least per member on healthcare in the aggregate or at the component level).

22 One measure of statistical significance is related to the computation of confidence intervals. A confidence interval expresses the range in which the means of numerous, randomly selected samples are likely to fall. The commonly used 95-percent confidence interval expresses the range in which 95 percent of the numerous means are expected to fall under these conditions. The formula for calculating the lower bound of such a range is to take the observed mean and subtract 1.96 times the standard error (SE) associated with that mean. (See appendix for details of its computation.) The upper bound is computed by adding 1.96 times the SE associated with that mean. In the current case, the lower bound of the mean for Baby Boomers is computed to be $2,979.13 ($3,286.14 – [1.96 × $156.64]). The upper bound of the mean for Generation Xers is computed to be $3,245.87 ($3,230.98 + [1.96 × $99.43]). Note that the lower bound for the Baby Boomers is less than the observed mean for Generation X, and the observed mean for the Baby Boomers is less than the upper bound for Generation X. Therefore, the means are statistically indistinguishable.

A more appropriate test is the *t*-test, which also uses SEs to compute a probability that the observed means differ because of actual differences in the populations examined rather than because of natural variation across samples from these populations. However, the SEs in the experimental table are obtained with a special technique known as Balanced Repeated Replication (BRR), which makes the computation of a proper *t*-statistic not possible with the use of the data in the table. The BRR technique requires a computer program specifically written to compute a BRR *t*-test. Given the small difference in means observed, no such test is performed here.

23 Consider, for example, a population consisting of 500 consumers, each renting his or her home for $100. Compare that population with another population of 500 consumers, 10 percent of whom rent their homes and pay $200 in rent. The average renter in the second population spends twice as much on rent ($200) as the average renter in the first population ($100). However, the average rental payment in the second population ([$200 × 50]/500 = $20) is substantially smaller than the average rental payment in the first population ([$100 × 500]/500 = $100).

24 The estimate for apparel and services expenditures for own children under age 2 is computed by subtracting expenditures for gifts of apparel and services for children under age 2 in the section at the end of the experimental table from the total expenditure shown in the apparel and services section. Specifically, Millennials spend $168.85 on apparel and services for children under age 2, and of this amount, $54.12 is for gifts. The difference, $114.73, is for expenditures on children within Millennial consumer units. Generation X spends the second most on gifts of, and own children's, apparel and services (for children under age 2), whereas the GI generation spends the least on gifts of, and (not surprisingly) own children's, apparel and services (again, for children under age 2).

25 This category also includes new and used aircraft, but according to another experimental table available from the CE program (https://www.bls.gov/cex/2015/research/allcuprepub.pdf), there were no reports of either of these items in 2015.

26 This caveat is important because an Internet search of "motorcycle ownership demographics" yields numerous hits identifying the Baby Boomers as the most likely generation to own motorcycles. One article, published at the end of 2015 (the year studied here), states that "Baby Boomers outnumber Millennials as motorcycle owners at a 4-to-1 ratio." (See Brandon Gaille, "32 compelling motorcycle demographics," *Brandon Gaille: Marketing Expert & Blogmaster*, December 24, 2015, https://brandongaille.com/32-compelling-motorcycle-demographics/.) It is possible that Baby Boomers own more motorcycles than Millennials, but that they have owned them for some time, while Millennials are more likely to be first-time purchasers. In this way, percent ownership for Baby Boomers would be higher, but their actual expenditures would be lower. However, this explanation does not seem plausible if the 4-to-1 ratio is accurate. A more likely explanation is the variance of the data. (See appendix for more information.)

27 Perhaps one surprise in the "underspending" category is cellular phone service. While accounting for 22.6 percent of the consumer-unit population, Millennials account for 22.2 percent of cellular phone service expenditures, meaning they slightly underspend their share. Additional details are provided subsequently in the main text.

28 According to the table, 67 percent of the estimated 29,008,802 Millennial consumer units are renters, for an estimated total of 19,557,734 Millennial renters. In the total population (128,437,362 consumer units), 38 percent are renters, for a total of 48,382,354 renters. The ratio of 19,557,734 to 48,382,354 is about 40 percent.

29 Note that the shares described in this article are ratios of averages, not averages of individual shares. In the example just given, the consumer unit has a total expenditure share of 5 percent for food. Suppose another consumer unit spends more on food ($45) and in total ($500), so that the resulting share for food is larger (9 percent). The average of the expenditure shares is 7.0 percent ([5% + 9%]/2). However, the average expenditure on food for the two consumer units is $30 ([$15 + $45]/2), and the average of total expenditures is $400 ([$300 + $500]/2). The ratio of the averages ($30/$400) yields a share of 7.5 percent. Since standard CE tables showing "shares" and "expenditure shares" publish the ratio of the averages for specific expenditures (such as those for food) to total expenditures (not the average of expenditure shares), the analysis in this article is consistent with the publication standard.

30 For more on Ernst Engel and his findings, see https://www.britannica.com/biography/Ernst-Engel; and D. Perthel, "Engel's law revisited," *International Statistical Review*, vol. 43, no. 2, 1975, pp. 211–218, especially p. 211.

31 To be certain that this result is due to fewer purchases rather than purchases of lower priced apparel, one needs the percent reporting expenditures (i.e., the percentage of consumer units reporting expenditures). These data are not available for the experimental tables. However, unpublished, but releasable, tables show that, for 2015, the percent reporting expenditures on apparel and services generally declines after age 44, especially starting with the 55- to 64-year-old group, in both the Interview and Diary surveys.

32 Geoffrey D. Paulin, "The changing food-at-home budget: 1980 and 1992 compared," *Monthly Labor Review*, December 1998, p. 3, https://www.bls.gov/opub/mlr/1998/12/art1full.pdf.

33 Ibid.

34 Kathleen M. Zellman, "Good eggs: for nutrition, they're hard to beat: the egg is no longer a nutritional no-no," *WebMD*, https://www.webmd.com/diet/features/good-eggs-for-nutrition-theyre-hard-to-beat#1.

35 Kristin L. Herron and Maria Luz Fernandez, "Are the current dietary guidelines regarding egg consumption appropriate?" *The Journal of Nutrition*, vol. 134, no. 1, January 2004, pp. 187–190, quote from p. 187, https://doi.org/10.1093/jn/134.1.187.

36 According to the unpublished, but releasable, table of Diary Survey data by age groups, only 19.08 percent of consumer units in the group under age 25 report purchases of eggs, whereas 27.79 percent of those in the 25- to 34-year-old group do. Together, these groups compose Millennials in 2015. While the proportion of older Millennials purchasing eggs is about the same as that for the total population (28.72 percent), the younger Millennials are purchasing far fewer eggs, as noted. Therefore, it is probable that those Millennials who do purchase eggs are purchasing types that are more expensive (such as brown or organic eggs) than those purchased by other generations. However, this conjecture remains a speculation, because the Diary Survey does not collect information on the types of eggs purchased.

37 The Consumer Price Index (CPI) produces nationwide average prices for several specific food items, such as "Chicken, fresh, whole, per lb. (453.6 gm);" "Chicken breast, bone-in, per lb. (453.6 gm);" "Chicken leg, bone-in, per lb. (453.6 gm);" "Chicken breast, boneless, per lb. (453.6 gm);" and "Turkey, frozen, whole, per lb. (453.6 gm)." However, it is not clear from these five items how to obtain a price per pound for "poultry." This list does not necessarily include every poultry item that might be part of the CE poultry category. Even if it did, it is not clear how, given the data available, one can find the average price paid by the average consumer unit. For example, if the average consumer unit purchased the same amount of every item in the poultry category, one could reasonably take a straight average of the prices in order to compute an average price for poultry. But what if the average consumer unit purchased 3 pounds of one item, 2 pounds of a second, and other amounts of the remaining items? Similarly, while the items that compose the "beef and veal" category in the CPI are even more extensive (ground chuck; ground beef; beef for stew, boneless; etc.), they do not necessarily represent all possible beef items, and the weighting question still remains.

The CPI also publishes price indexes for "beef and veal," "pork," "poultry," and "fish and seafood." However, these indexes can only demonstrate which items have experienced larger or smaller price changes (increases or decreases) over time, not relative prices at a point in time. To understand the importance of this insight, consider a food item that costs $100 today and another that costs $1

today. If tomorrow the price of the first item were to fall to $90 and that of the second were to increase to $1.10, the first item would experience a 10-percent price decline and the second a 10-percent price increase. Presumably, most families would deem the first item "too expensive" for regular purchasing regardless of purchase period, but they might not react strongly to the increase in price for the second item. This is a reasonable supposition even if the first item is regarded as "better" than the second by some criterion (taste, nutritional content, etc.).

38 Consistent with this insight, data from the BLS American Time Use Survey show that, not surprisingly, married mothers and fathers who are employed full time spend about half as much time as their "not employed" counterparts on daily food preparation and cleanup (0.81 hours vs. 1.62 hours for mothers; 0.35 hours vs. 0.67 hours for fathers). See "Table A-6A. Time spent in primary activities and the percent of married mothers and fathers who did the activities on an average day by employment status, average for the combined years 2011–15, own household child under age 18" (U.S. Bureau of Labor Statistics), https://www.bls.gov/tus/tables/a6_1115.pdf.

39 The item "canned noodle/macaroni" (i.e., canned pasta) is included as an element of the category "miscellaneous prepared foods."

40 As noted in the CE glossary (https://www.bls.gov/cex/csxgloss.htm), "Mortgage principal paid on owned property includes the reduction of mortgage principal on a mortgage or home equity loan for a home or any other property. (This is not included in homeowner costs but is repayment of a loan.)" Therefore, mortgage principal is included as a change in liabilities, rather than an expenditure. For the values discussed in the text regarding the allocation of the housing outlays, the reduction in mortgage principal, along with mortgage interest payments, is included as a positive outlay.

41 Part of this difference may be due to the Affordable Care Act, under which adults ages 26 or younger can be covered under their parents' insurance if they meet certain conditions. See, for example, https://www.dol.gov/agencies/ebsa/about-ebsa/our-activities/resource-center/faqs/young-adult-and-aca.

42 The first two tables are the 2014 generational table and the 2015 midyear update, which covers the period from July 2014 through June 2015. The fourth, and final, experimental table is another midyear update, which covers the period from July 2015 through June 2016. The CE program transitioned the generational tables from experimental to regular production with the release of data for 2016 (January through December).

43 See https://www.bls.gov/cex/pumd.htm for an overview of CE microdata, and https://www.bls.gov/cex/pumd_data.htm for the data files.

44 The variance is computed by finding the deviation of each observation from the mean of the observations, squaring each deviation, and dividing the sum of the squared deviations by 1 less than the total number of observations (i.e., the total number of observations minus 1). In the second group, the mean expenditure is $5, and each observation is either $10 or $0. Therefore, dropping the dollar sign, each deviation is either 5 or −5 (i.e., 10 − 5 or 0 − 5), and each squared deviation is 25. In this example, each observation has the same squared deviation, so the sum of the deviations is simply the squared deviation for one observation (25) multiplied by the total number of observations. Because there are 20 observations, the variance is (25 × 20)/(20 − 1), or approximately 26.32.

45 In this case, there are 19 deviations of −5 and 1 deviation of 95. This yields 19 squared deviations of 25 and 1 squared deviation of 9,025. The variance is [(19 × 25) + 9,025]/(20 − 1) = 500.

46 The technique used is the method of "balanced repeated replication" (BRR). In the case of the CE, 44 "half sample" weights are used to estimate means for each expenditure of interest. The deviations between each of these 44 weighted means and the mean derived from the "final" (or "full sample") weight are then squared and summed. The result is divided by 44, yielding an estimated variance of the mean for the expenditure of interest. It is from this estimate that values related to variance in published CE tables are derived. For more information on the theory of BRR, see Leslie Kish and Martin R. Frankel, "Balanced repeated replications for standard errors," *Journal of the American Statistical Association*, vol. 65, no. 331, September 1970, pp. 1071–1094. For more information on the formula for, and application of, BRR in CE data, see "Consumer expenditures and income: calculation," *Handbook of methods* (U.S. Bureau of Labor Statistics), especially "Calculation precision," https://www.bls.gov/opub/hom/cex/calculation.htm.

47 While not listed, the CV for each expenditure is readily calculable from the data in table 1, as the numbers here demonstrate. For example, table 1 shows that for Baby Boomers, the SE for other vehicles is 21.08 and the mean is 66.26, yielding a CV of 31.81. The slight difference between this value and the CV shown in the experimental table (31.82) is due to rounding error. That is, the CVs in

the experimental table are computed before the SE and the mean are rounded to two decimal places. The CVs computable from table 1 use SEs and means that are already rounded.

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