WHEN I WAS YOUR AGE II:

COMPARING ECONOMIC STATUS OF YOUNG ADULTS IN DIFFERENT GENERATIONS

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August 8, 2023

Virtual Event

"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….

[However, for] a new generation now coming of age … the expectations … 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."

Thus wrote a sage, about Millennials.

(Source: "Fun facts about Millennials: comparing expenditure patterns from the latest through the Greatest generation." Paulin, *Monthly Labor Review*, March 2018 [https://www.bls.gov/opub/mlr/2018/article/fun-facts-about-millennials.htm])

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This work analyzes data from the Consumer Expenditure Surveys (CE) to see how Millennials in young adulthood (25 to 34 years old in 2019) compare to their predecessors at the same age. These are:

- Generation Xers (2000)
- Baby Boomers (1984)

Questions:

- Why these years?

- Who was better off when?

- And what are the Consumer Expenditure Surveys?

Let's tackle the last one first.

Introduction To
# The Consumer Expenditure Survey (CE):

Mission, Survey Methods, and Data Provided for Public Use

The Consumer Expenditure Surveys (CE):

- Comprise the most detailed source of expenditures collected directly from consumers by the Federal government.

- Include information on demographics and income, as well as expenditures.

- Results are published annually in various formats, including tables and microdata files.

The CE is used to obtain the "market basket" of goods and services needed to estimate the Consumer Price Index (CPI).
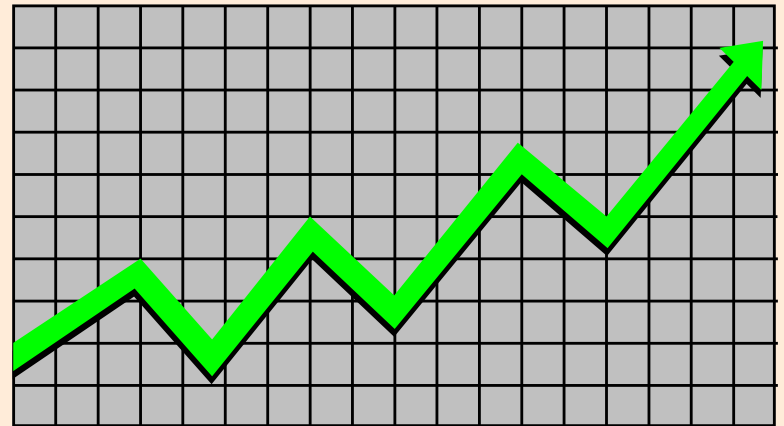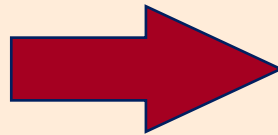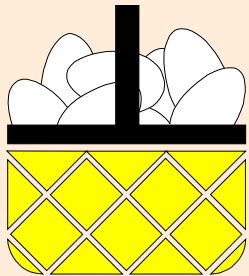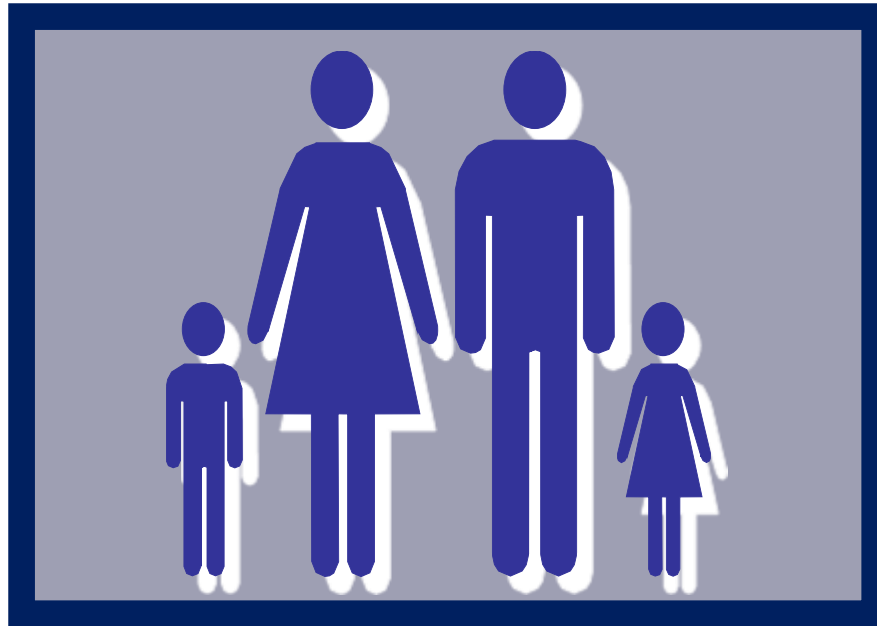
Data in the survey are collected from "consumer units…"

…which are categorized in publication by characteristics of the "reference person."
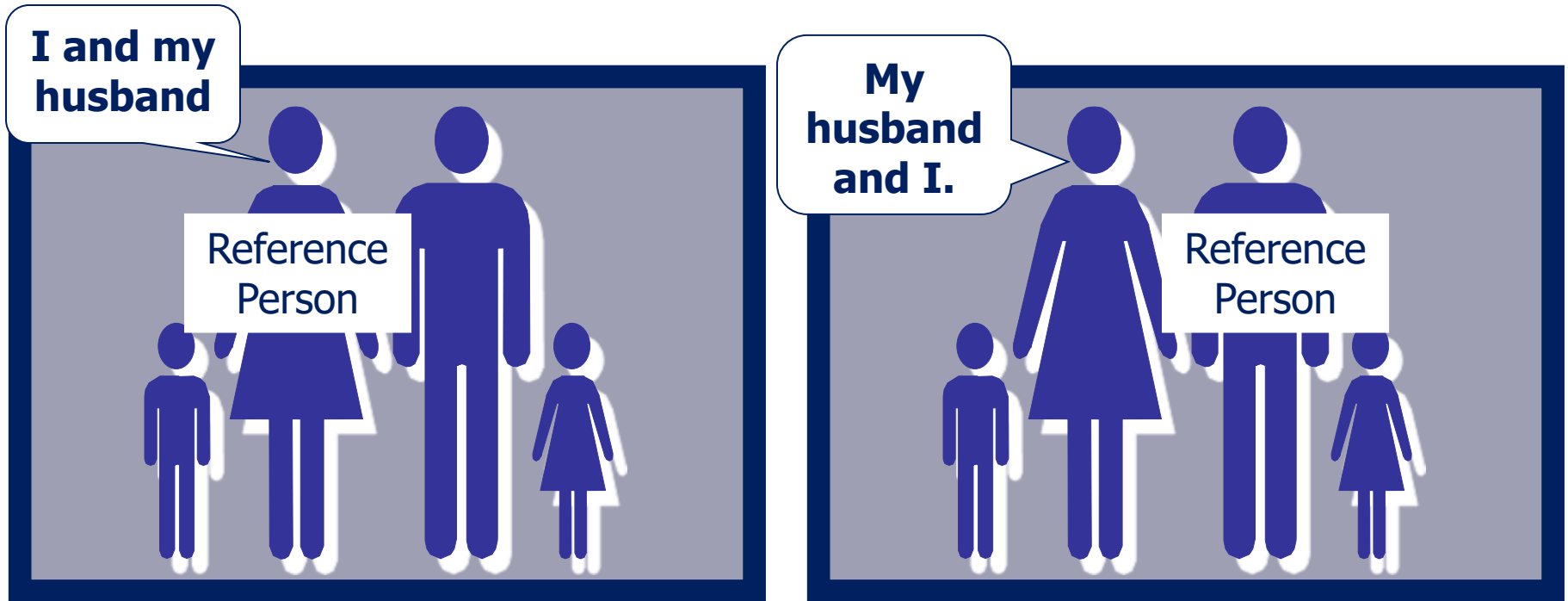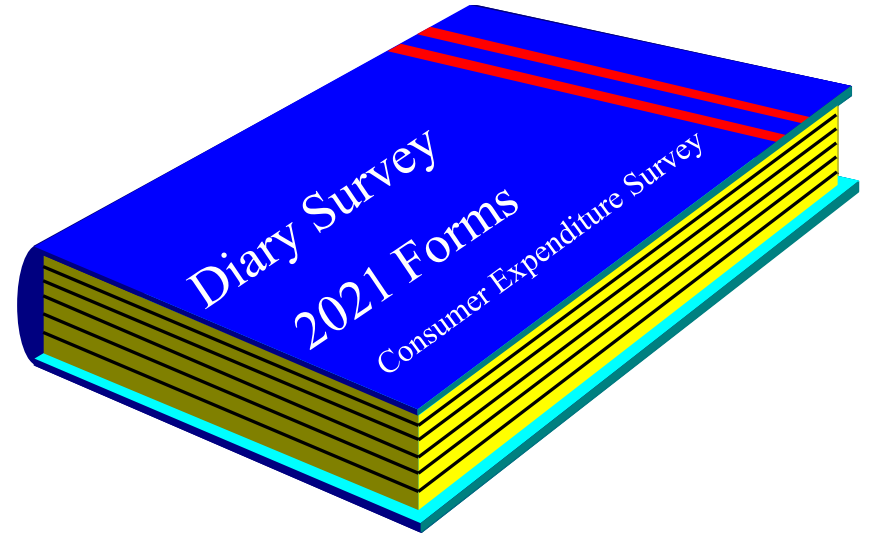
A Consumer Unit is:

A single person, or group of persons who live together <u>and</u> who share responsibilities for most major expenditures.

The "Reference Person" is the first person named…

…when the respondent is asked, "Who is responsible for owning or renting this home?"

There are actually two components to the CE ....

Diary Survey 2021 Forms
Consumer Expenditure Survey

The Interview survey and the Diary survey.

The Interview Survey is...

- Designed to collect detailed information on "big-ticket" and recurring expenditures, and global estimates on others (such as food at home).

- Collected every three months for four* consecutive quarters.

- A rotating-panel survey.

- Comprises more than 5,000 "consumer units" interviewed each quarter.

*The bounding interview was discontinued in February 2015, yielding a total of four, rather than five, consecutive quarterly interviews.

The Diary survey is designed to capture "small-ticket" and frequently purchased items for which expenditures would be difficult to recall over a three month period.

So tell me, by gum.
In the last three months did you buy gum?

Additional Facts about the Diary Survey:

- **The Diary survey is conducted independently from the Interview survey.**

- **One diary is placed with participating families ("CUs") each week for two consecutive weeks.**

- **Approximately 12,000 diaries are placed with families each year.**

Diary Survey
2021 Forms
Consumer Expenditure Survey
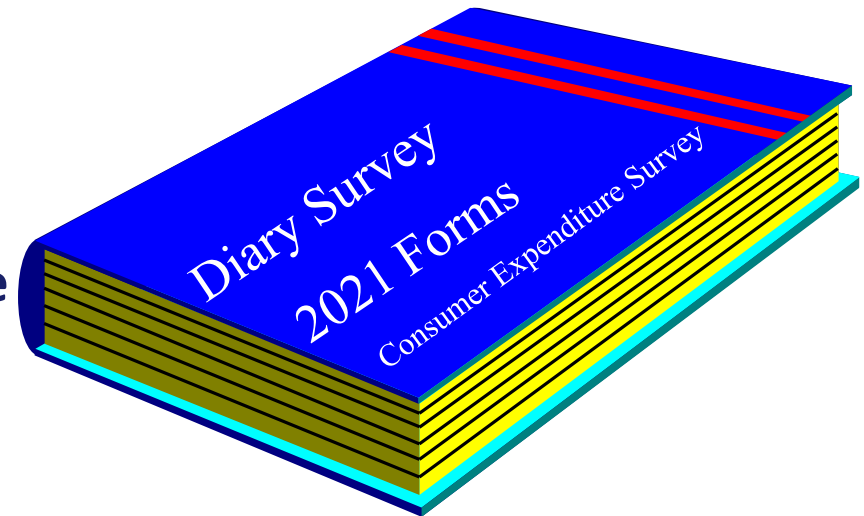
Results are integrated before publication of the data in tables.
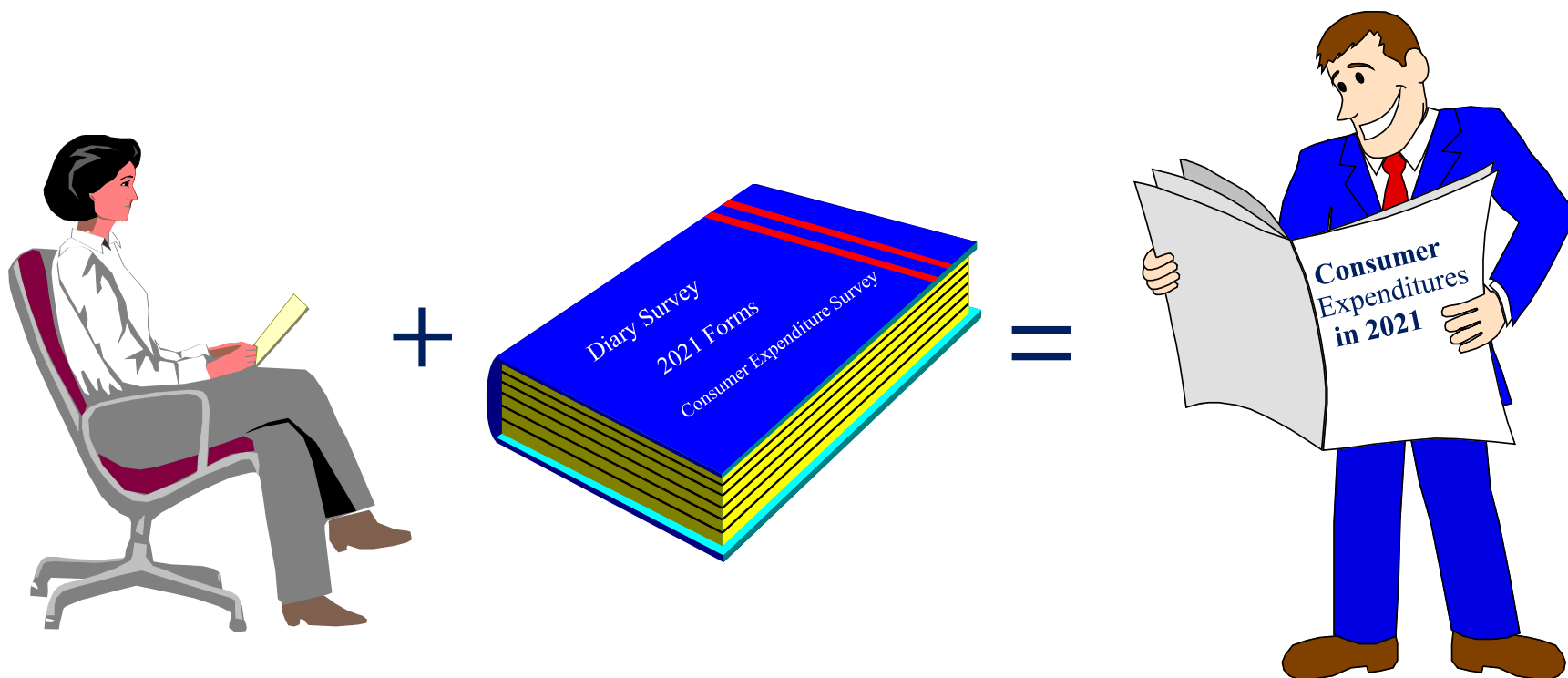
Table formats:

- **Annual:**
  - January to December: 1984 onward.
  - July to June: 2011-12 onward, starting March 27, 2013
- **Two-year Tables (January year1-December year2):**
  - Cross-tabulated data (e.g., age by income): 1986-87 onward
  - Selected MSA tables: 1986-87 onward
  - Other (e.g., population size): Various start dates

Experimental research tables:

- Special tabulations in development for official publication

- Subject to change (as "experimental" implies)

- Current examples include:

  - Detailed, prepublished data for all consumer units, previously only available on request

  - High income groups, including $150,000 to $199,999 and $200,000 and more

  - Generational groups ("Millennials," "Generation X," etc.)
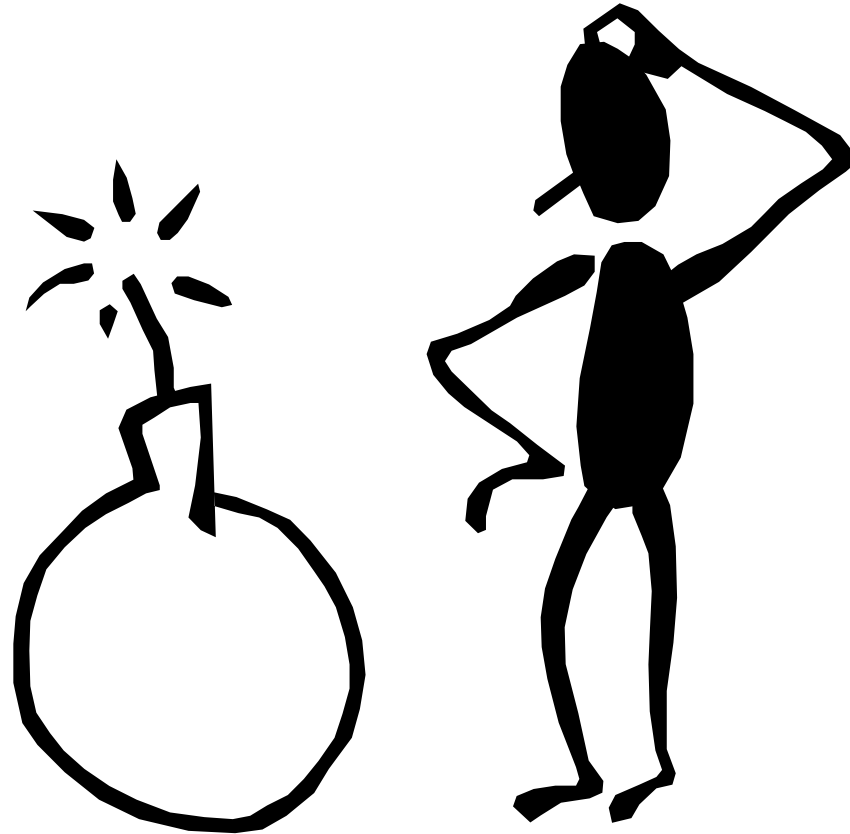
Microdata formats:

- **Online, free download:**
  - ▶ Interview: 1980-81; 1984-1989 (FMLI only); 1990 onward
  - ▶ Diary: 1980-81, and 1990 onward
- **Paradata:**
  - ▶ Data on Interview Survey collection process
  - ▶ Available 2009 onward

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Why do generations "matter?"

Many reasons:

- As noted in the opening, "everyone" wants their children (the next generation) to be better off than "they" were growing up.

- Events happening personally or to society at large can shape a person's outlook or activities, especially those taking place early in life.

- The current generation's attitudes and behaviors can affect later, and even past (but still living) generations (voting patterns, economic policy, social or cultural norms, etc.)

Of course, some things never change….

Ha! Ya think YOU got it bad? Well, things were a lot WORSE back in MY day, ya young whippersnapper!

Josephus T. Blough,
Perennial Portrayer
of Passé Progenitors
of Present-Day
Persons.

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Returning to our questions:

- Why these years?

- And why start with 1984? Does it have to do with that novel, by George? Or… well….

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No. It's something else.

1984 is the first year for which continuing annual CE data are available in a consistent format.

O.k., so 1984 starts the current data series, but why 2019 and 2000? What gives?

- True, 2021 data are now available, and 2022 are coming soon.
  - But the onset of the COVID-19 pandemic in March 2020 confounds analysis. If young adults are worse off in 2021 or 2022 than their predecessors, how much is long-term trend, and how much is a COVID-19 effect?

- Why 2000 for the middle, when it is 19 years before 2019, but only 16 years after 1984?
  - Yes, it would be more logical to use 2001 (18 years before 2019) and 1984 (17 years before 2001), or 2002 (17 years before 2019) and 1984 (18 years before 2002)
  - BUT:

Consider 2001.

- What everyone remembers:
  - ▶ September 11 (and rightly so).
- What everyone forgets:
  - ▶ Tax cuts.
  - ▶ Recession.
  - ▶ Start of the housing bubble.
- With either 2001 or 2002 as the "midpoint year," these "outside" effects, like the pandemic, are either starting or lingering, confounding comparisons to other periods.
- The "Millennial" year of 2000 is most similar to 1984 and 2019 in terms of the business cycle.
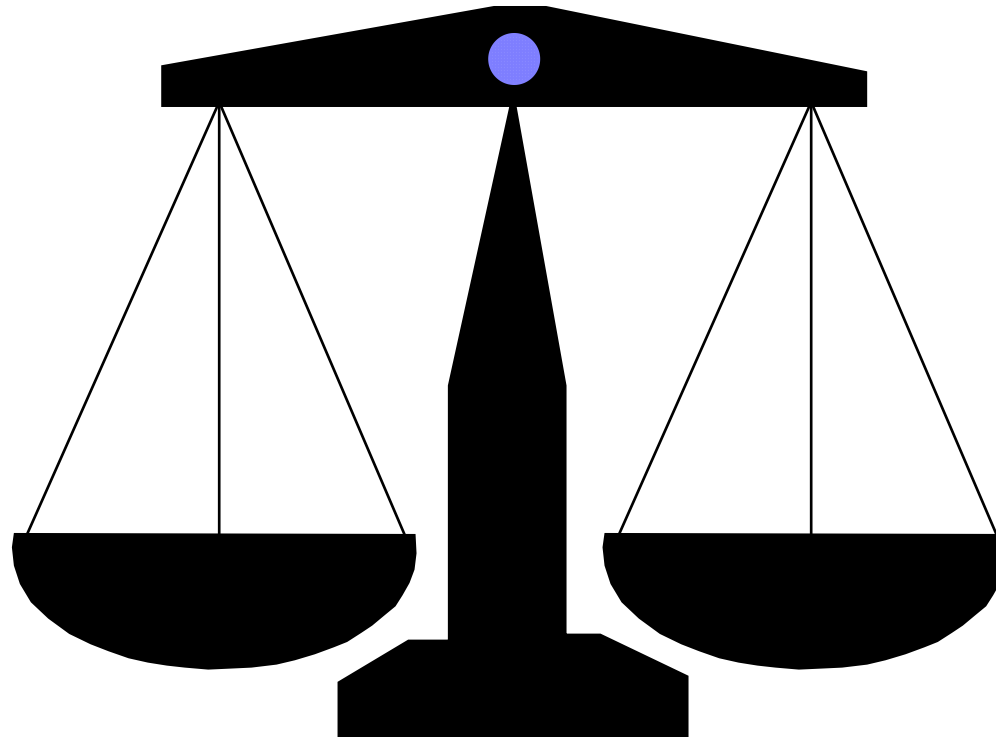
Looking back:
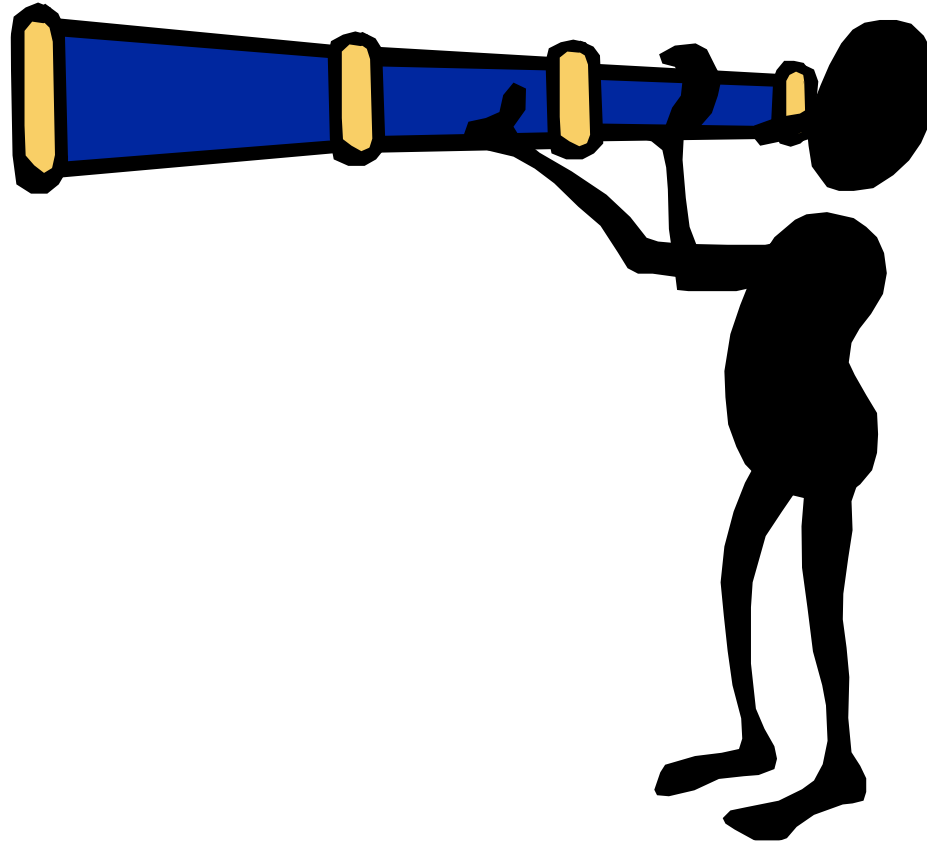
Question Two was "Who was better off when?"

Which raises its own question: "How do we know?"

Perhaps you know the old joke:

Which weighs more—a pound of gold or a pound of feathers?

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Note the measure here is weight, which on Earth, is the same as mass. But what if we measure by:

- Volume? A pound of feathers takes up more space.
- Density (Mass/Volume)? Gold is more dense.
- Resale Value? Again, Gold is worth a lot more, ounce per ounce.
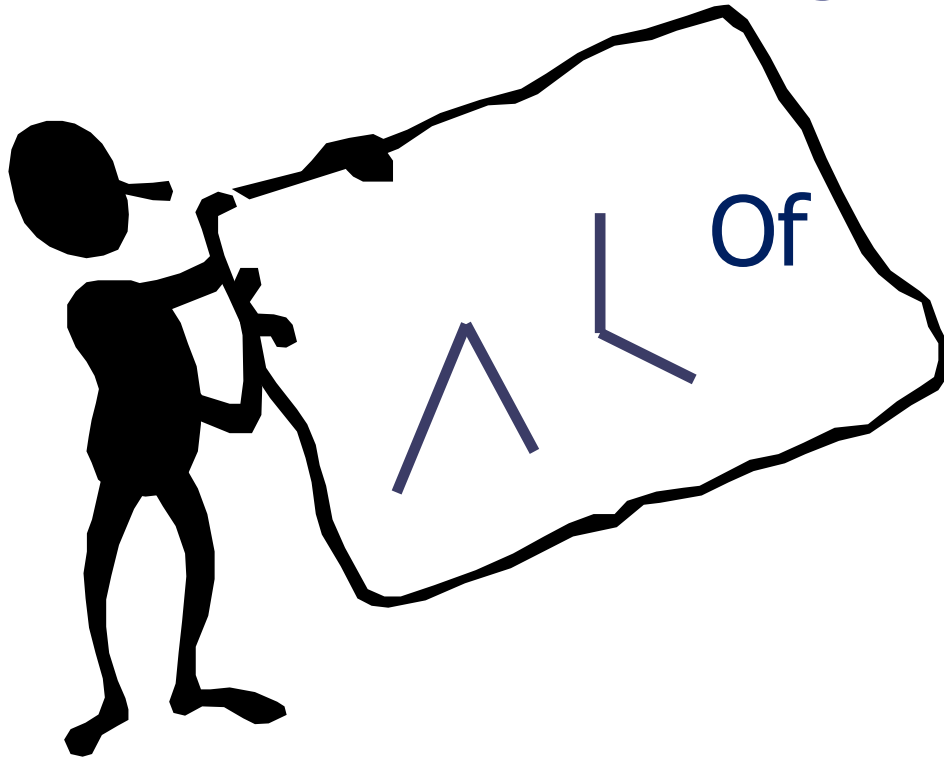
In other words:

Measurement matters.

Here, our main measure is Engel's Proposition.

Of

I SAID "ENGEL'S *PROPOSITION,*" NOT "ANGLES, *PREPOSITION!*"

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Syllogistic Reasoning:

- Engel's Finding (1857): The larger the income, the smaller the share allocated to food.

- Axiom: The smaller the share allocated to food, the more "left over" for other spending.

- Conclusion: Smaller food shares indicate higher social welfare/economic status.
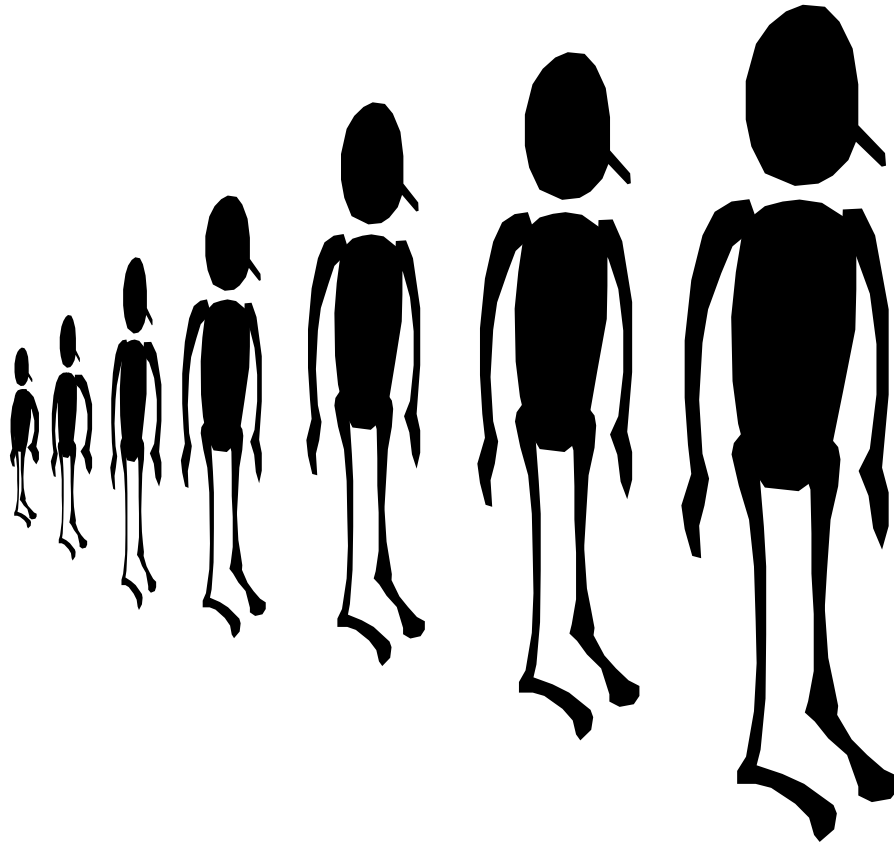
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Note that "Food" has two components:

- Food at home

  - ▶ Food purchased at grocery stores and similar outlets

  - ▶ "Necessity" component

- Food away from home

  - ▶ Food purchased from restaurants and similar establishments
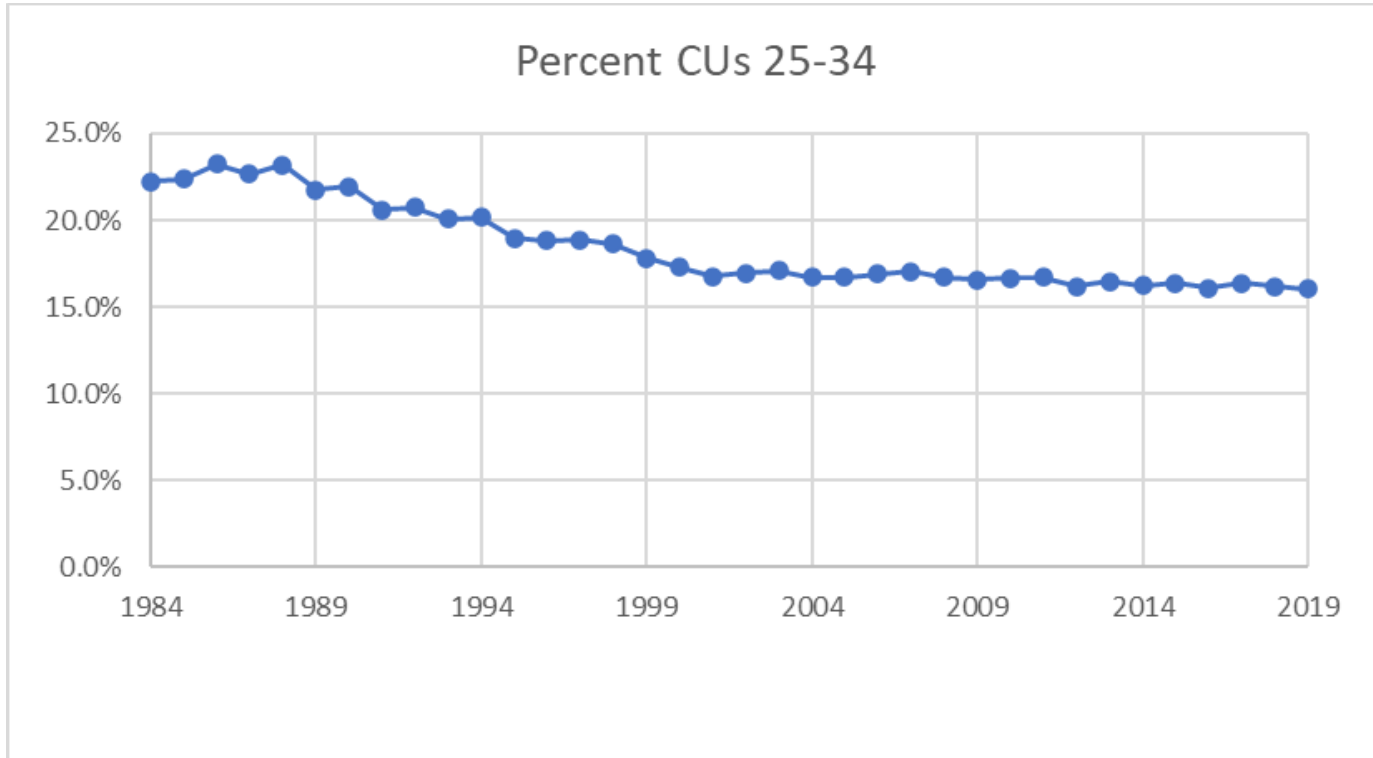
  - ▶ "Luxury" component

And now, let's examine some data.

Some data

Let's start with demographics.

The percentage of consumer units (CUs) with reference person age 25-34 declines over time, but more slowly from 2000 (17.3) to 2019 (16.2) than from 1984 (22.2) to 2000.

Percent CUs 25-34

This is consistent with lower birthrates observed after the so-called "baby boom" following World War II for which the eponymous generation is named.

CU composition has changed, too.

Table 1: Composition of Consumer Units with Reference Persons Aged 25-34 (Percent Distribution by Year)

Family type	1984	1999	2015
Single person	25.3	23.4	24.6
Two or more persons:			
Married couples	58.2	51.3	43.0
Married couples only	13.9	11.0	12.0
Married couples with all children under 18	41.7	36.1	28.6
Other married couples, incl. with children 18 or older	2.7	4.2	2.4
Single parents	8.6	11.6	10.7
Single father	0.5	0.6	0.8
Single mother	8.1	11.0	9.9
Other, including unmarried partners	7.9	13.7	21.7

Source: Table in unpublished work by author, "When I was your age…," produced using microdata.

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As has race and ethnicity.

Table 2: Race and Ethnicity of Reference Persons Aged 25-34, Percent Distribution by Year

Race and Ethnicity of Reference Person	1984	1999	2015
Black	10	15	15
Hispanic or Latino	6	14	17

Sources: Published tables (Black); Table in unpublished work by author, produced using microdata.
REASON: Hispanic ethnicity was not published in tables until 2003.
Note: Hispanics can be of any race, so adding all race/ethnicity categories will yield more than 100 percent.
Categories for White and other races/Not Hispanic or Latino are omitted from table.
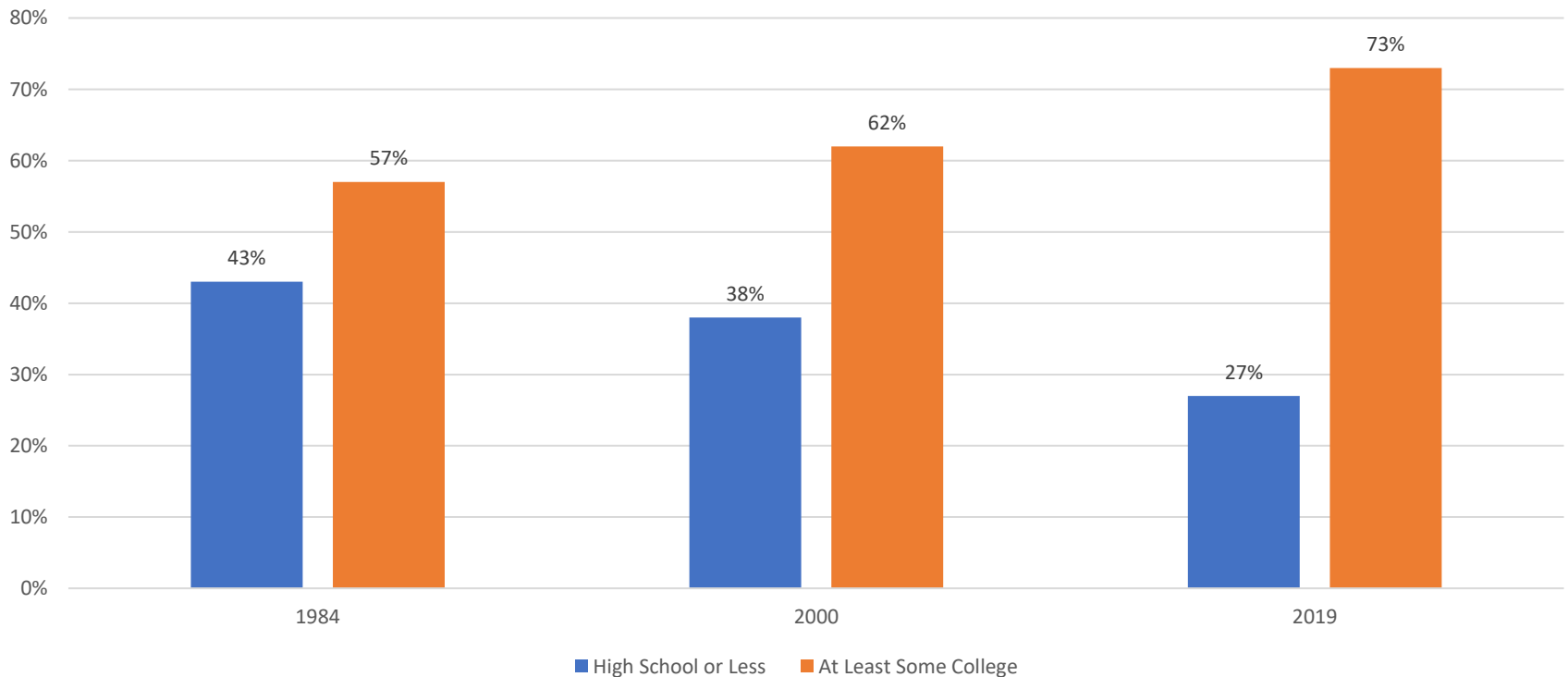
Educational attainment has risen steadily, with 1994 looking like a "pivot point."

Educational Attainment for CUs with Reference Person 25-34
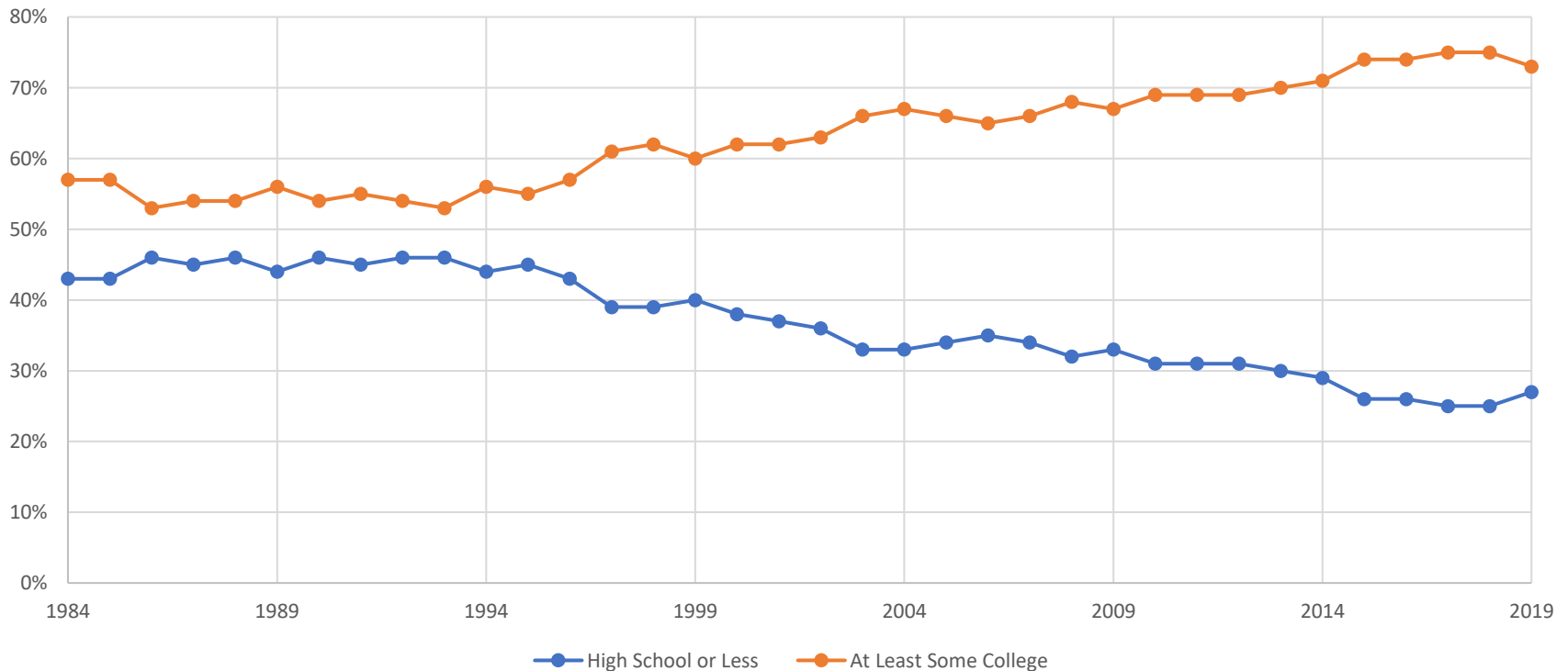
Considering only the years of interest, educational attainment looks like this:

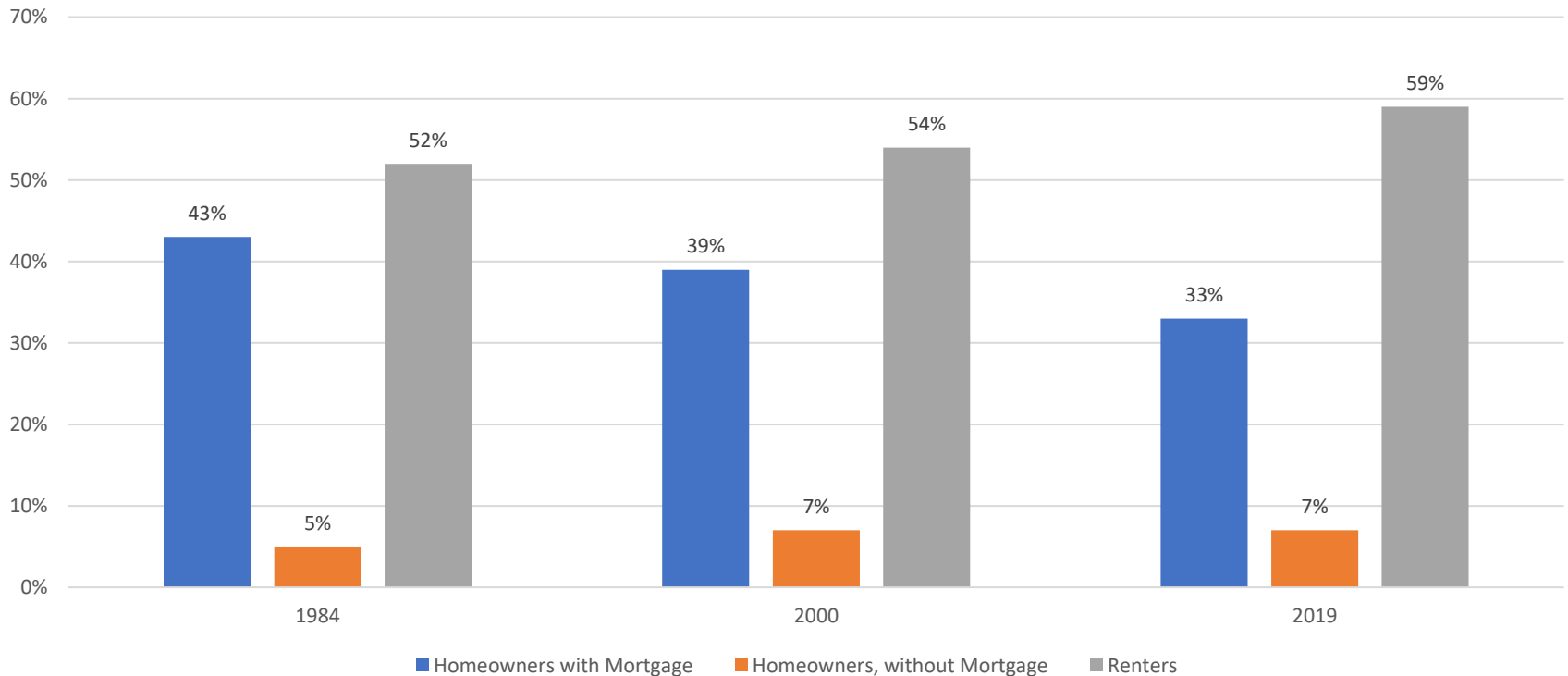Educational Attainment by Selected Years, CUs with Reference Person 25-34

The proportion of reference persons who have at least attended college rises from 4 in 7, to 5 in 8, to 3 in 4!

Similarly, one can examine "snapshots" of housing tenure...

Housing Tenure for Reference Persons 25-34, Selected years

Legend:
- Homeowners with Mortgage (blue)
- Homeowners, without Mortgage (orange)
- Renters (gray)

Year	Homeowners with Mortgage	Homeowners, without Mortgage	Renters
1984	43%	5%	52%
2000	39%	7%	54%
2019	33%	7%	59%

...But examining trends "develops" into a "bigger picture."

Housing Tenure Rates, Reference Persons 25-24
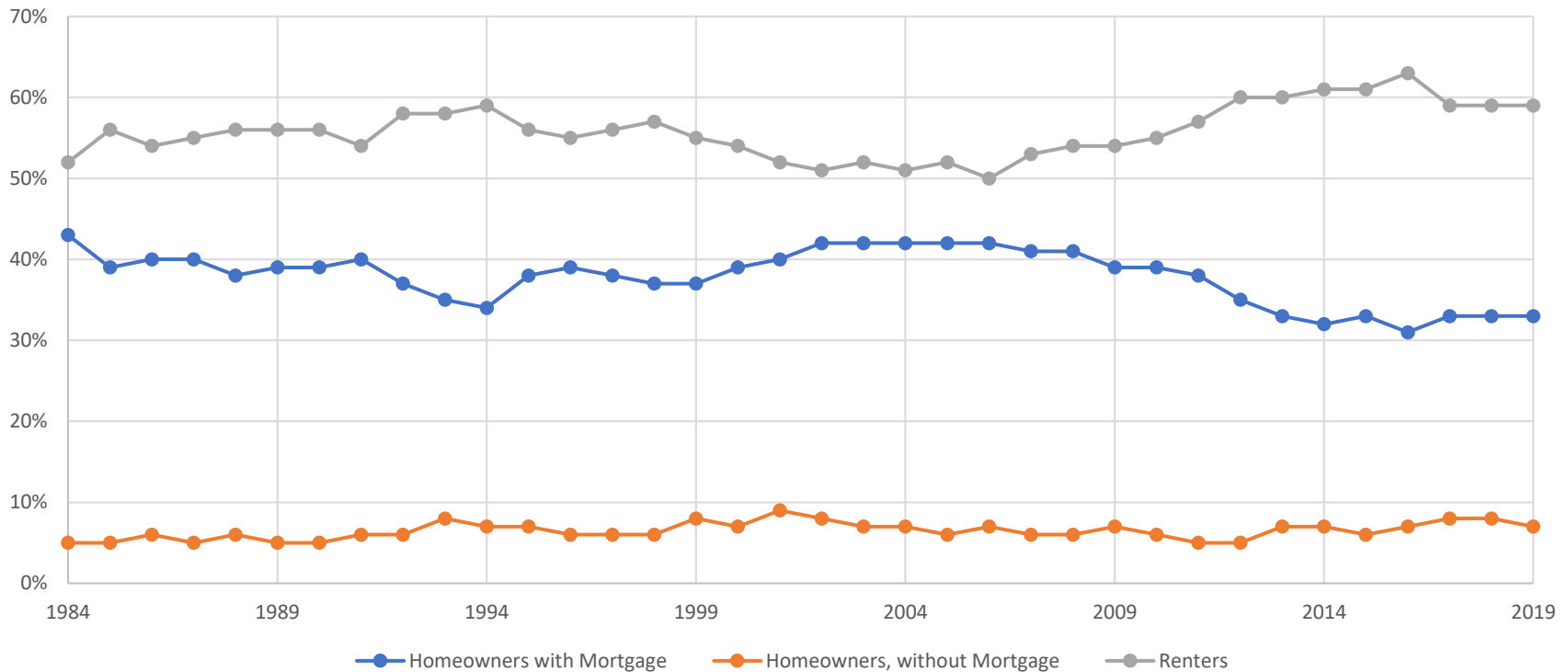
Note that homeownership with mortgage rises substantially in the "housing bubble" period (2001-2008), and falls steadily thereafter.

Educational attainment and housing tenure stand in contrast to the other characteristics just described:

- The first are purely existential—there is no "choice" to them, they just "are."
- However, college education and homeownership involve choice, and are generally considered to be "good" things.
- But there is something more to consider:

If student loans/"exotic" mortgages are increasingly common to finance ever-increasing tuition rates/home purchases, are the Millennials (and their successors) "better off" with more education and/or homeownership?
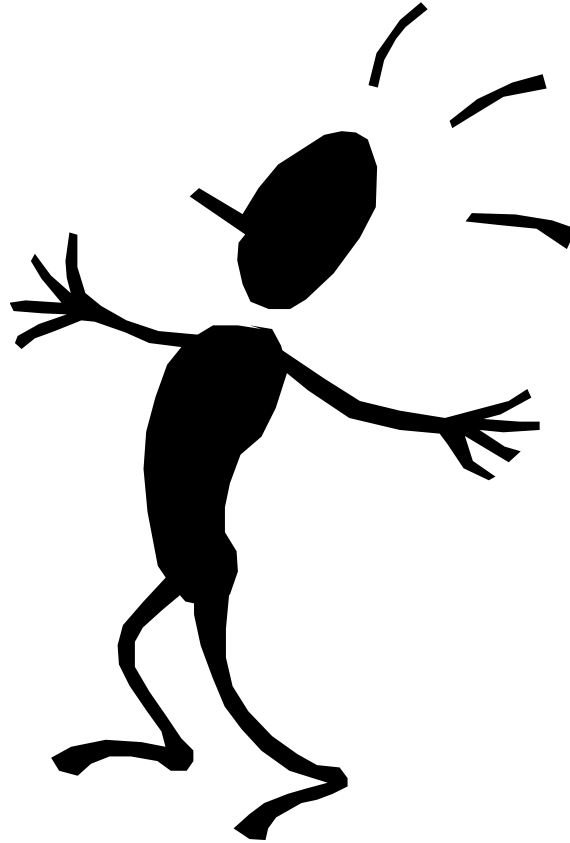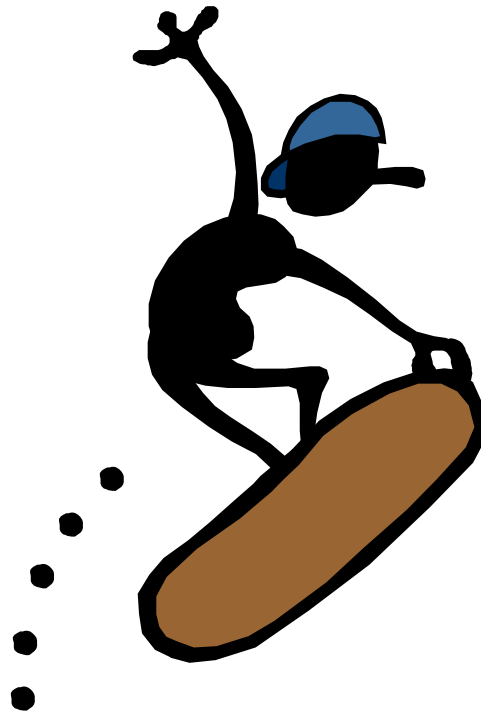
Now, let's talk about money....

# When discussing "economic status" and "money," the first thing that comes to mind is likely income...

…But using historical income data in CE can involve some "tricky" maneuvers….

Prior to 2004, income data were:

- Subject to nonresponse bias.

- Published based on a "complete reporter" definition, that did little to solve the problem. Example: The same CU could be defined as "complete" or "incomplete," just by changing the reference person!

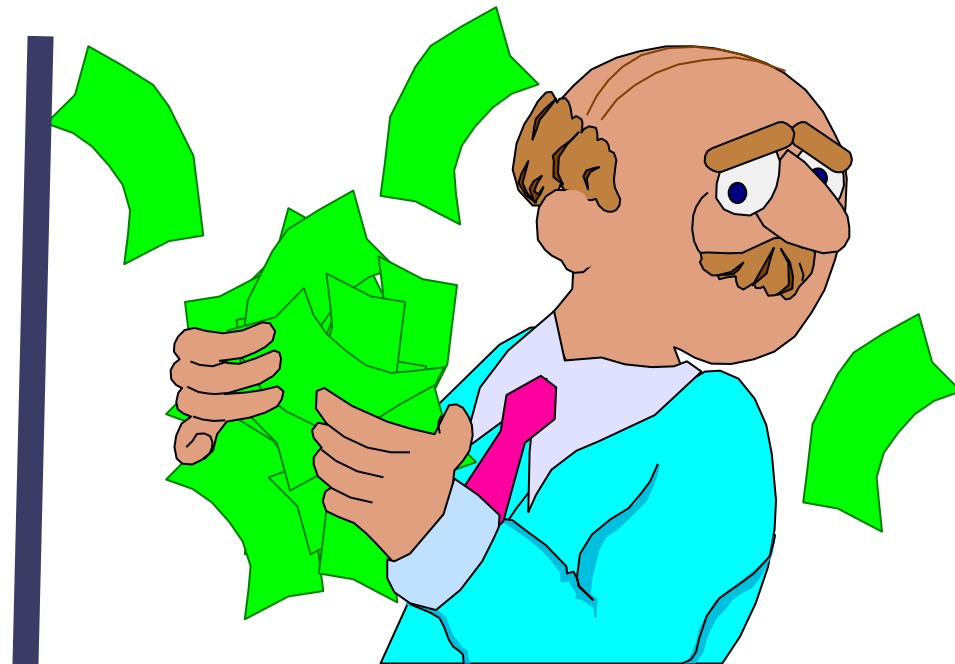# Starting with 2004 data, multiple imputation takes effect.
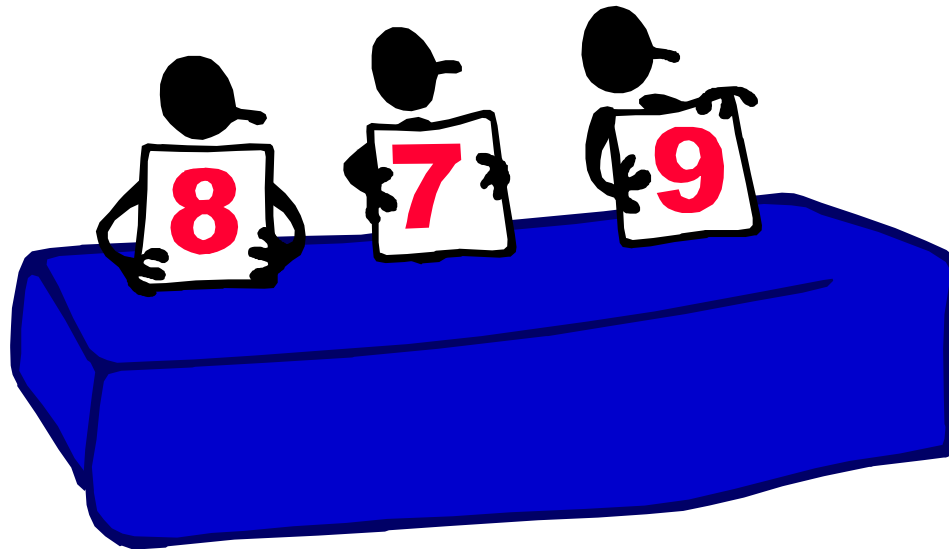
In this technique, different values are estimated for each missing data point.

To address the break in series, this work uses total expenditures, in line with the "Permanent Income Hypothesis."
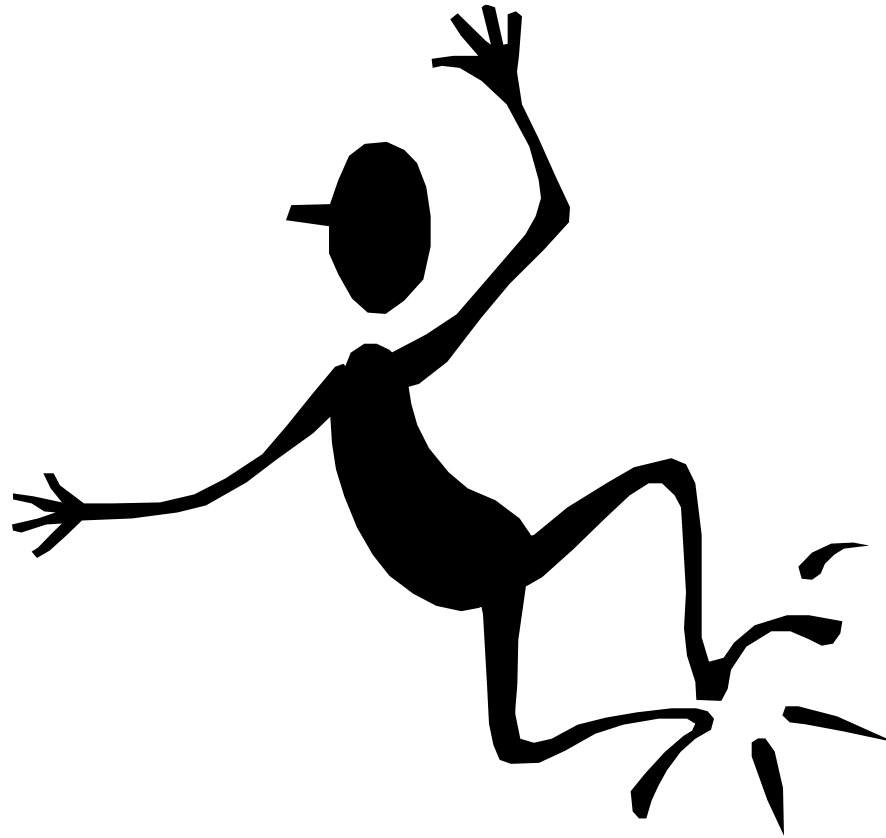

Permanent Income… …Transitory Income

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In the interest of brevity….

The "Permanent Income Hypothesis:"

- Was posited by Milton Friedman (1957);
- States that expenditures are not made based only on current income (money received today), but expectations of future income;
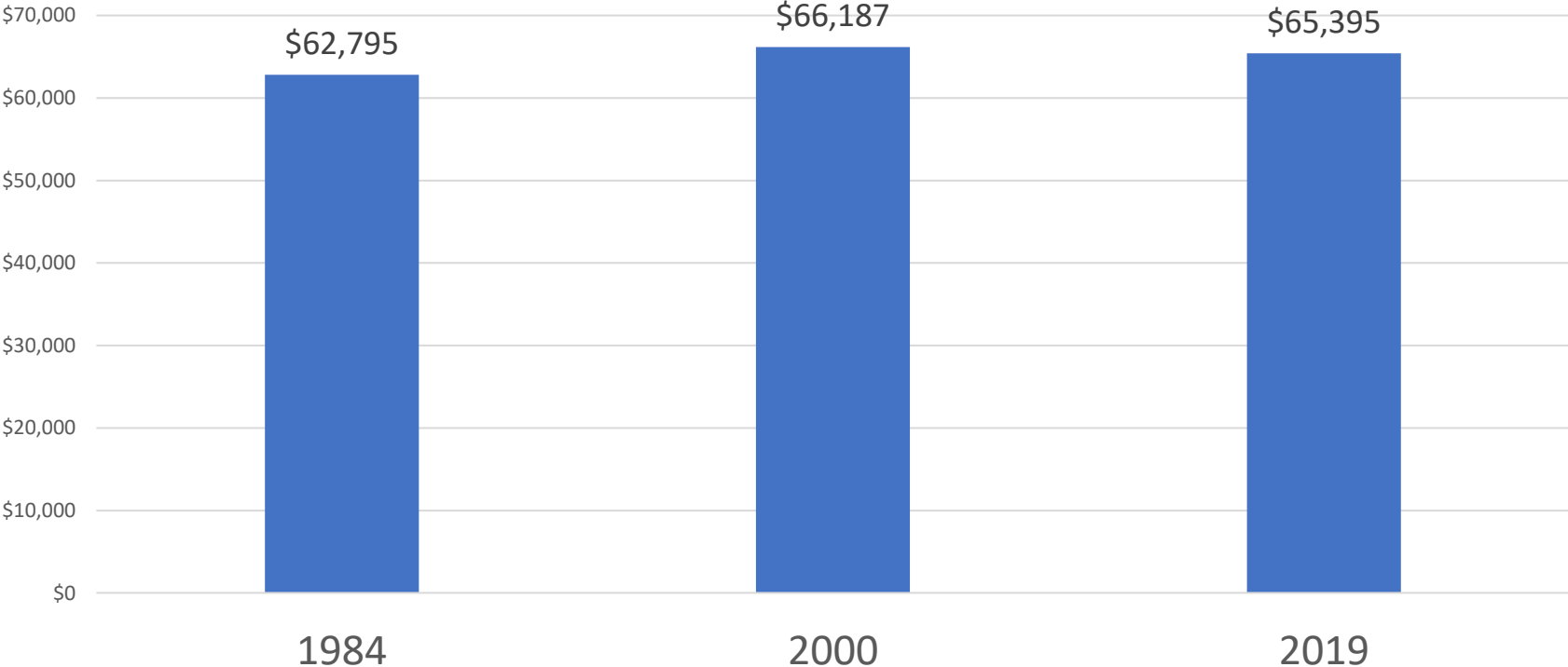- "Allows" expenditures to proxy for income, or at least, many authors do so.

And so shall we here!

Comparing "snapshots," this is what we see:

Total Expenditures (Real $2022), CUs with Reference Person 25-34

1984	2000	2019
$62,795	$66,187	$65,395

It appears GenXers are best off, with Millennials a close second:

- Increase in expenditures for Boomers to GenX: 5.4 percent;

- Increase in expenditures for GenX to Millennials: -1.2 percent. (Negative increase=decrease);

- Increase for Boomers to Millennials (because, according to the stereotype, EVERYONE ignores GenX): 4.1 percent.

But Caveats Apply:

- Differences shown here are not tested for statistical significance.

- What a difference a year makes!
  - When looking at 1984 and 1999 (not 2000), the increase is only 1.1 percent;
  - And for 1999 to 2015 (from the original work), the increase is another 1.2 percent. Timing matters!

Here, again, is the "big picture:"

Real ($2022) Total Expenditures, CUs with Reference Person 25-34 Years Old

Total Expenditures, $2022
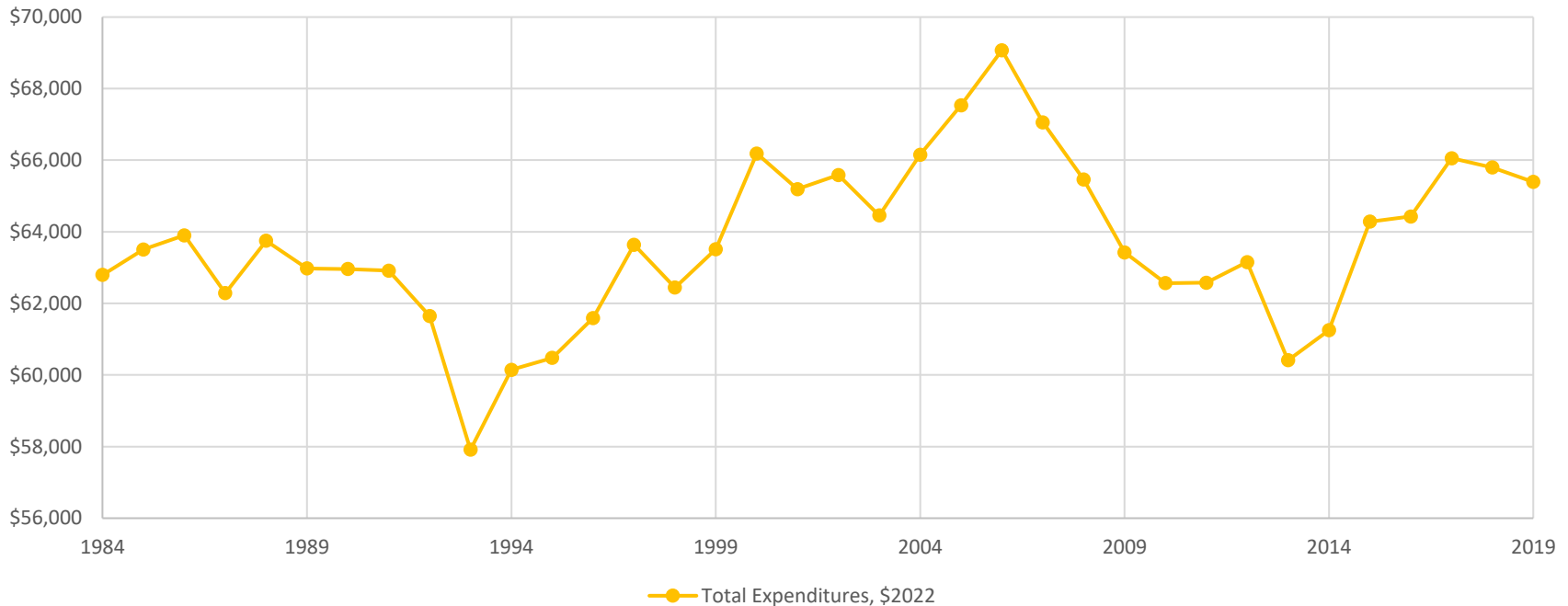
CAVEAT: The "default" graph starts the Y-axis at $56K, instead of $0, thus exaggerating the "roller coaster." But it makes clear that years of comparison matter, so axis is left unadjusted.

Caveats about using total expenditures to measure "well-being" also apply:

- In times of rapid price change, such as the recent inflationary period, real expenditures—even after controlling for price change—may rise faster than real income. So, increased "permanent" income makes it look like a group is better off, when it is actually worse off.

- Goods and services available for purchase change over time in quality and just plain availability. Some may not even exist in earlier periods:

Cellphones in 1984, anyone?

Enter Engels' Proposition, Stage Right.

Here, we consider shares of expenditures.

- We discussed the theory behind this before—smaller shares for necessities implies better "economic status."

- Shares also change more slowly (generally) than expenditures, even during times of rapid price change (again, your experience may vary), and thus can be more helpful than analyzing even "real" dollar expenditures.

Let's start with basic necessities:

- Food (at home)

- Apparel and services

- Housing (mortgage/rent and utilities)

Before "Moving In" to "Housing:"

- In CE, "Housing" includes furniture, lawn and garden supplies, etc. that are not "basic necessities."

- Utilities are often included in rent, so "basic" here includes them for all CUs considered.

- Mortgage principal is not considered an expenditure in CE. However, it is added in here to make better sense of the outcomes.
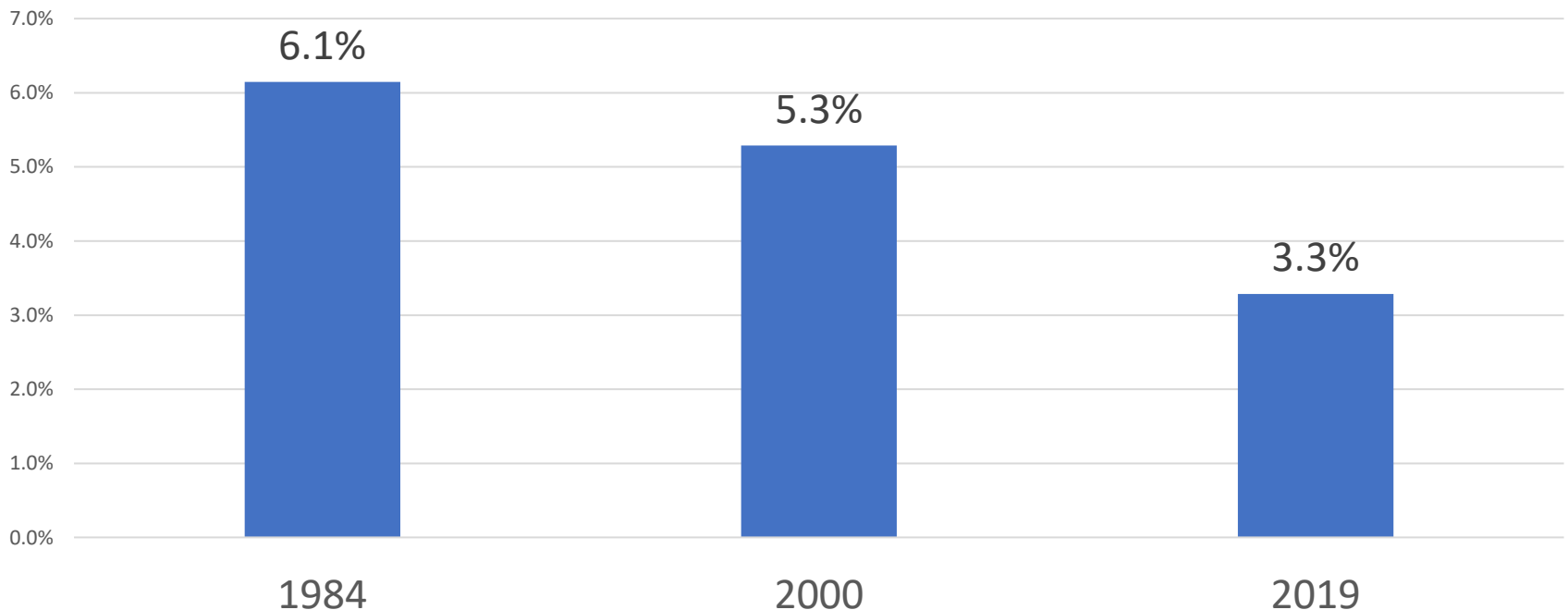
Shares for food at home...

Food at home (Share of Total Expenditures), CUs with Reference Person 25-34
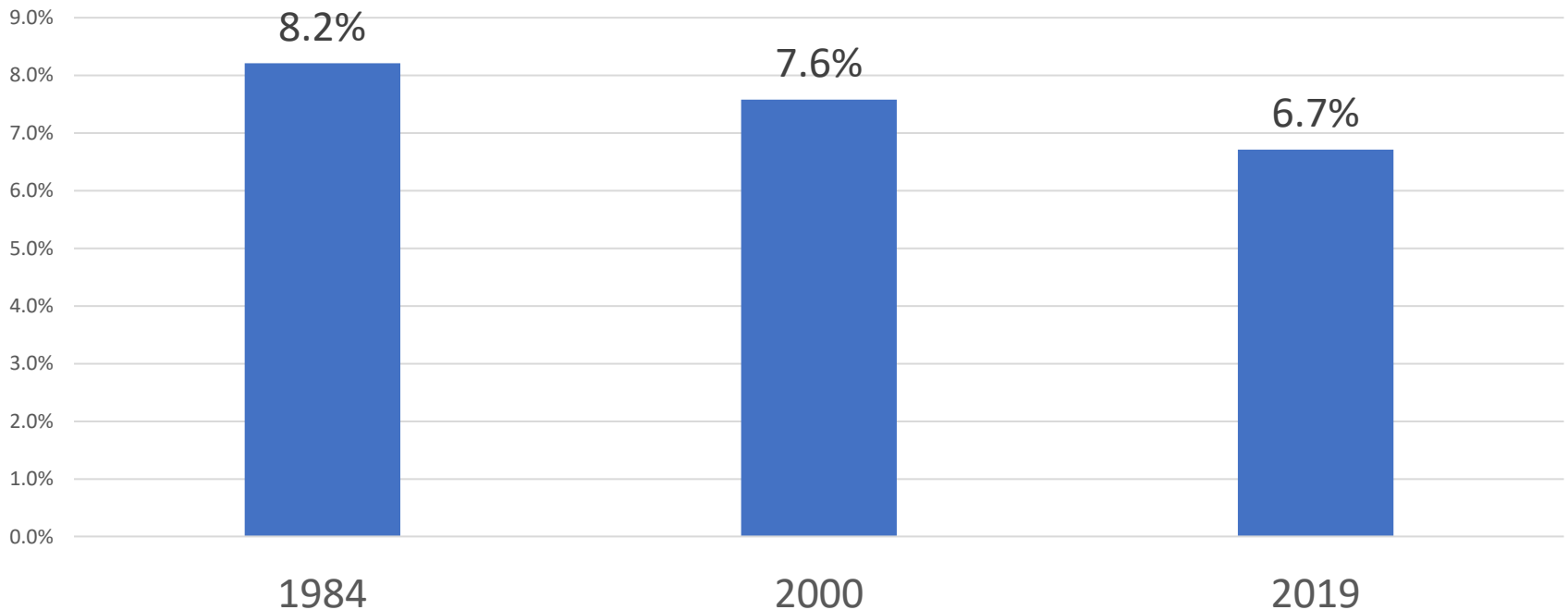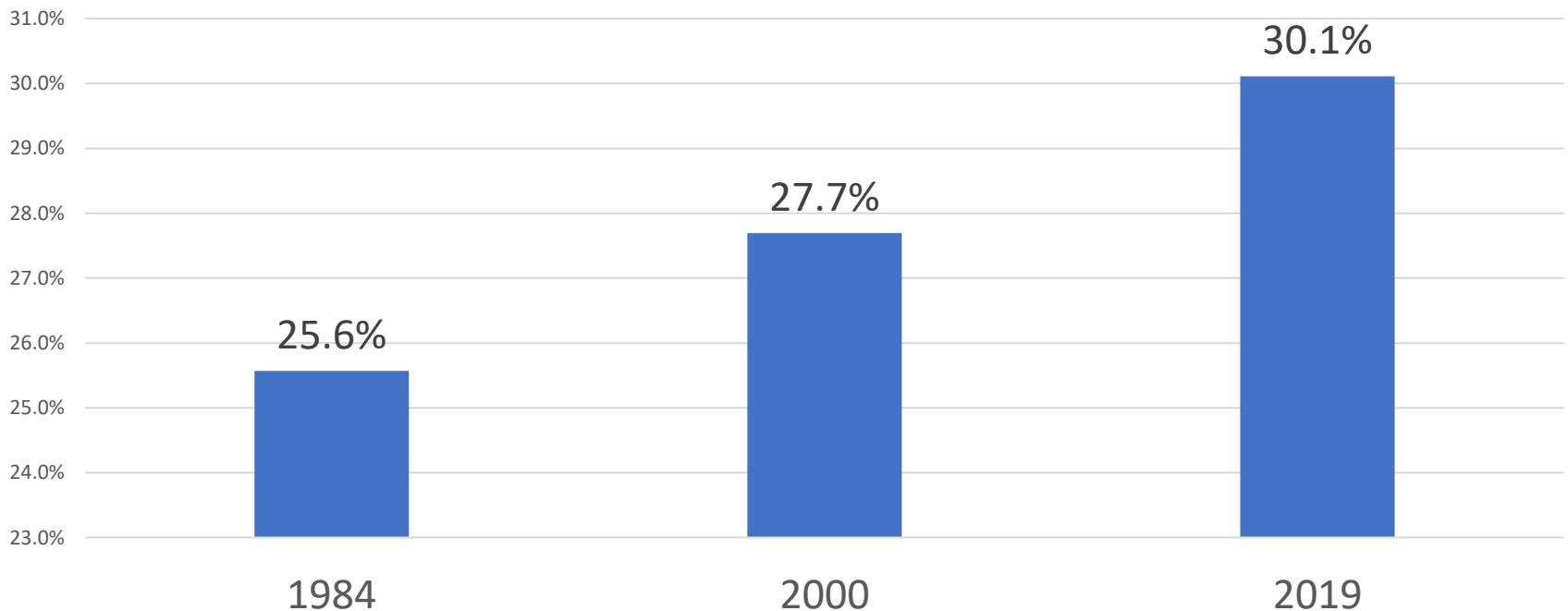
…And Apparel and Services…

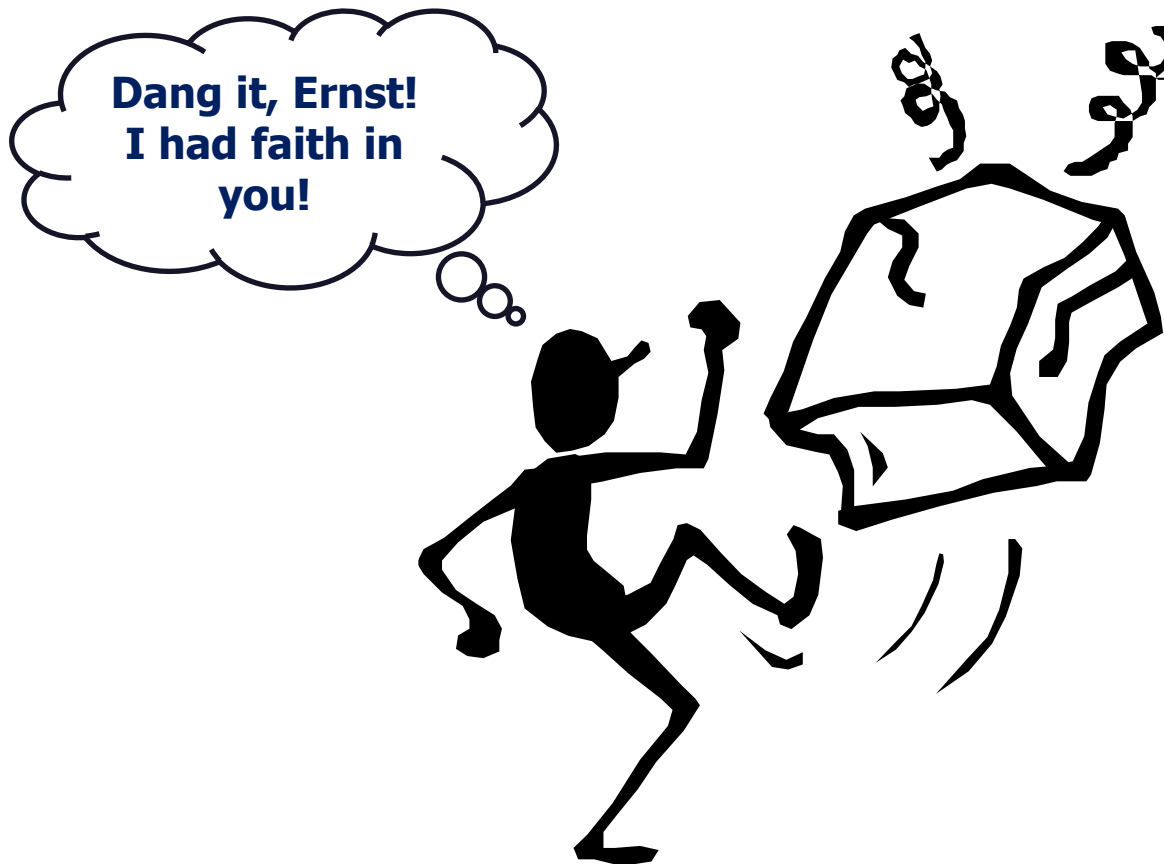Apparel and Services (Share of Total Expenditures), CUs with Reference Person 25-34

…Are consistent with improved economic status for each generation.

But Basic Housing is the opposite!

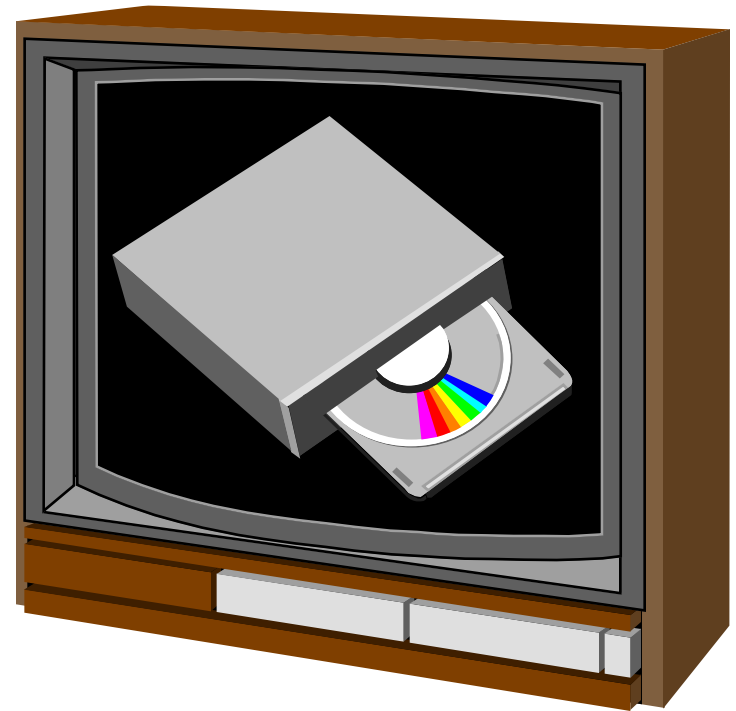Basic Housing (Share of Total Expenditures), CUs with Reference Person 25-34

Hey, there, not so fast!

Could it be younger generations:

- Are buying larger homes?

- And taking advantage of those lower food at home/apparel and services/possibly other shares to afford this?

- And what about shares of "luxury" goods (food away from home, etc.)?
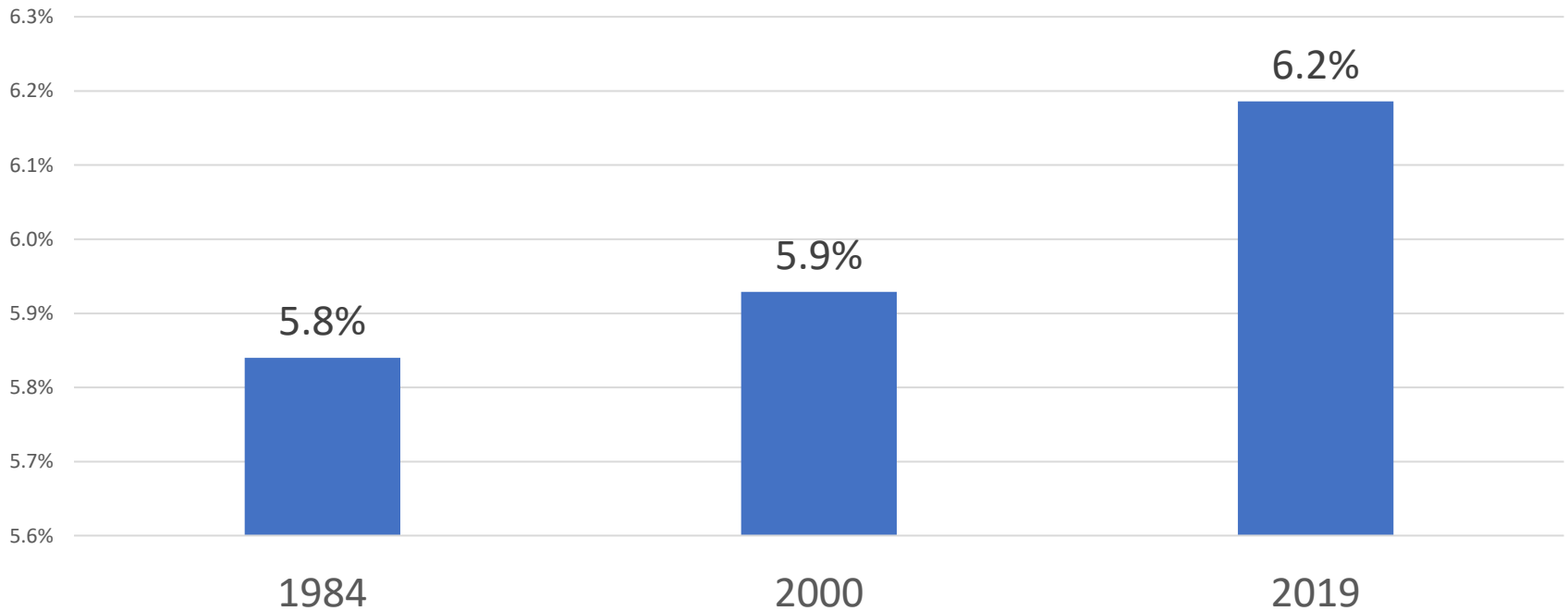
We'll find out after a word from our sponsor…

...Just kidding.*

*But if you identified with the text, or could identify the product,
you may be a GenXer (or older!)

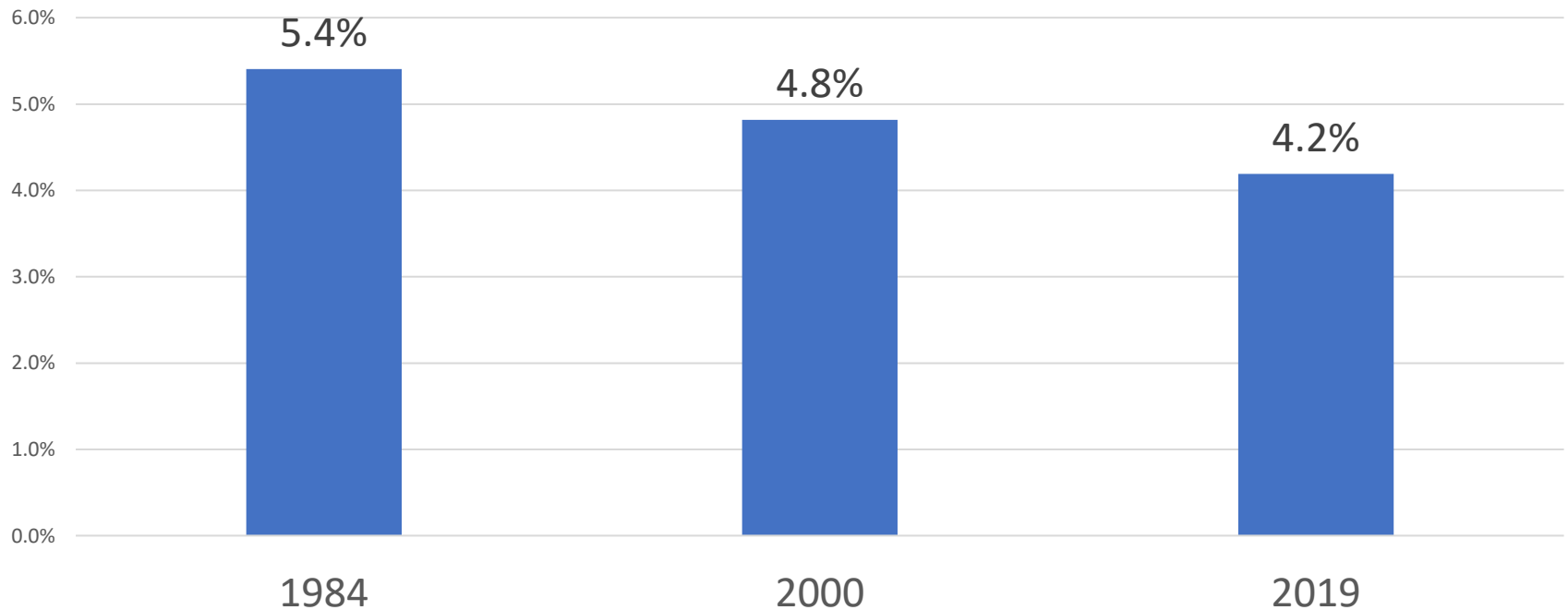# Looking at luxuries, food away from home...

Food Away from Home (Share of Total Expenditures), CUs with Reference Person 25-34

...and Entertainment appear to tell opposite stories...

Entertainment (Share of Total Expenditures), CUs with Reference Person 25-34

Year	Share
1984	5.4%
2000	4.8%
2019	4.2%

Food away from home says, "Better off!" while Entertainment says, "Worse off!"

- Again, there are factors to consider:
  - ▶ Entertainment includes a lot of different items (fees and admissions, digital media recorders and players, cable and satellite television services, games—virtual or not, pets, etc.)
  - ▶ Some of these items did not exist in 1984, or can be produced at higher quality and lower prices today.

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Consider computers:

- While technically part of housing, think of a computer that sold for $2,000 in 1984 compared to a computer that sold for $2,000 in 2019.

- Now consider that $2,000 in 1984 was equivalent to nearly $5,000 in 2019 spending power.
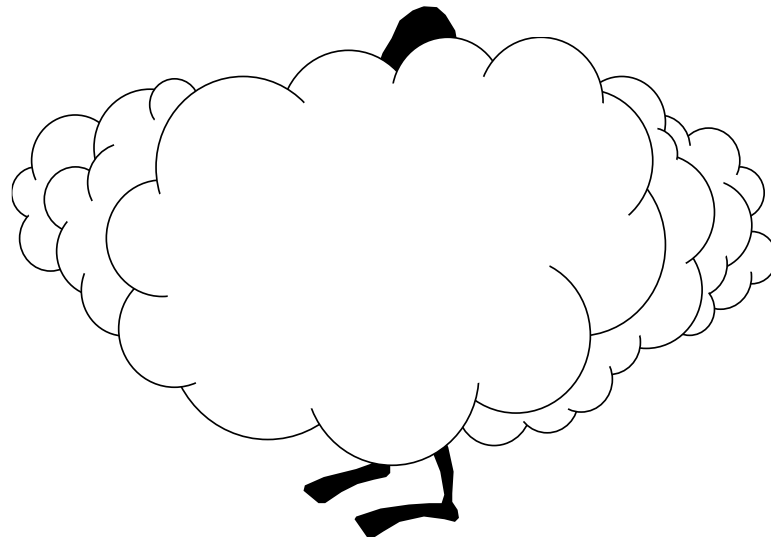
I think I made my point.
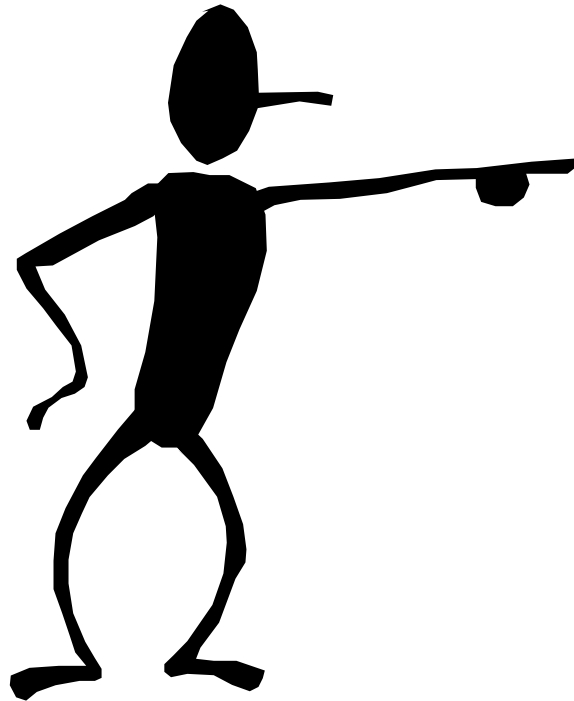
And what about other measures, like vehicle ownership?

Percent Distribution: At least one vehicle owned or leased, CUs with Reference Person 25-34
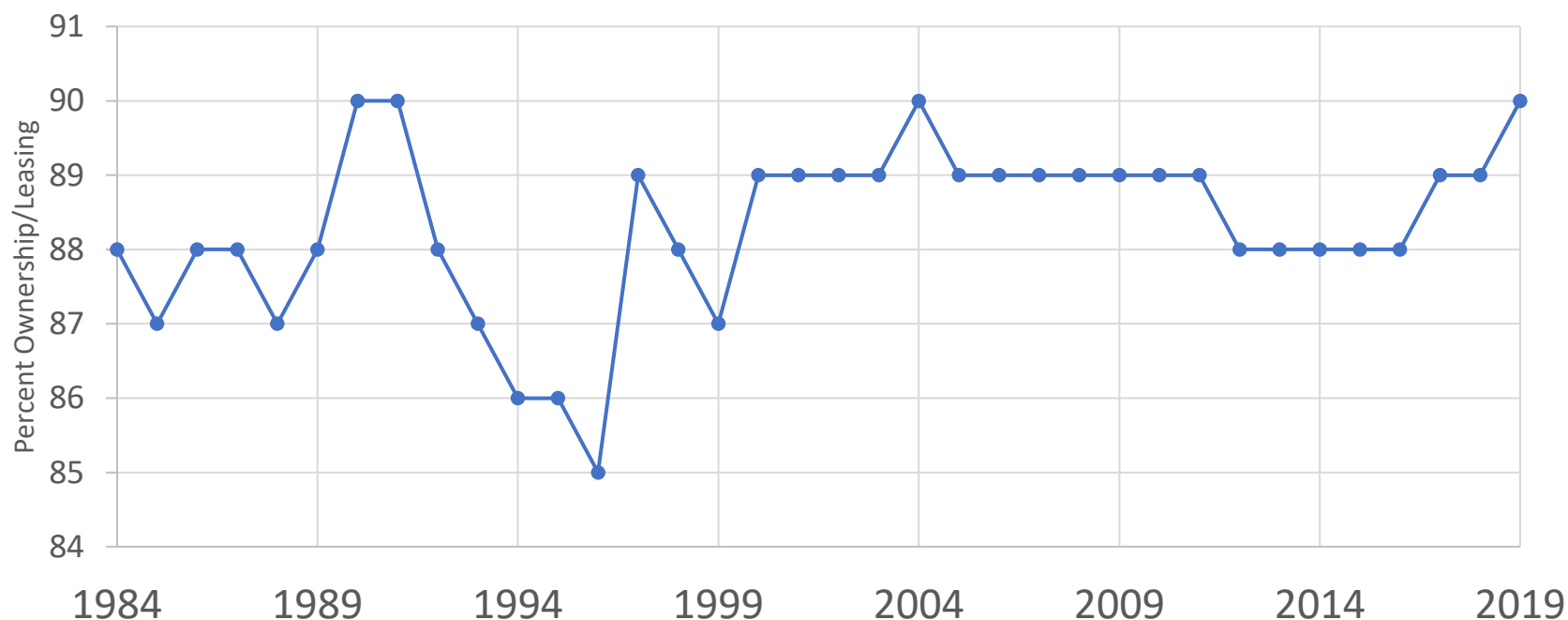
Again, do not be fooled by the "roller coaster."
The rate ranges from 85 to 90 percent over the whole period.
Verdict: Not different.

So, what have we "mist?"

Percent reporting.

- Available in detailed "unpublished, but releasable" tables.

- Shows whether more or fewer CUs are buying goods or services (of any type available) over time.

- Useful for computing mean of those reporting. (If overall mean rises, are more CUs purchasing, or those who purchase spending more per unit?)

CE has other demographics not described here, in the interest of time.
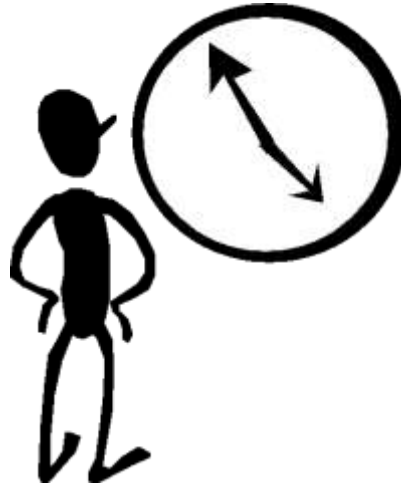
- Number of earners per consumer unit.

- Family size.

- Occupation of reference person.

On that last point, tabular data are available for singles by age.

- **Advantages:**
  - ▶ They allow for comparison of single males and single females within each time period.
  - ▶ They allow for comparison of change over time for males, and for females, separately. (And then, changes themselves can be compared—which group changed the least/most?

- **Disadvantages:**
  - ▶ They are two-year tables due to sample size. So, each mean is an "annual mean over two years," which may confuse some users.
  - ▶ They start in 1988-89, so cannot go back as far as the current presentation does.

Another point about singles:

- Not available on tables (only through microdata) is the number of single 25-34 year olds within a household.

- If the proportion is increasing over time, this could mean more young adults are moving in with parents, etc., rather than living independently.

# Continuing with this thought, the results are open to interpretation:

- **Resolved: More singles living with parents indicates a decrease in economic status.**
  - ▶ They are unable to make it on their own, indicating hardship.

- **Resolved: More singles living with parents indicates an increase in economic status.**
  - ▶ Instead of paying high rent, they put that money toward a down payment for an owned home, saving for retirement, etc.

CE asks only about outcomes, not motivations.
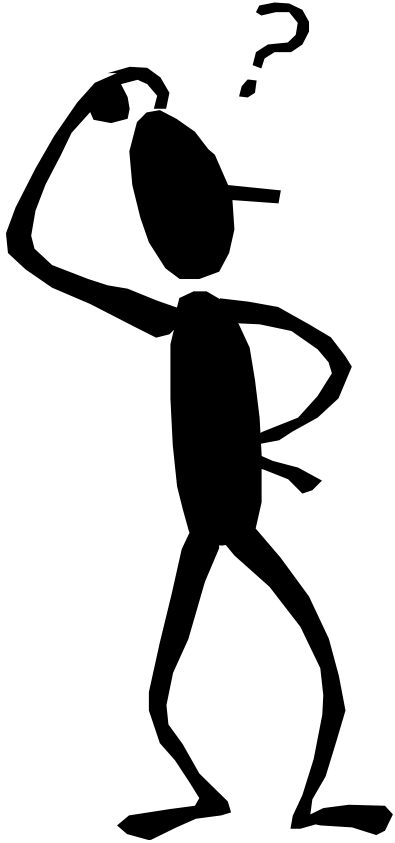
So, these issues are beyond its scope to address.

Hopefully, you learned a lot today, at least about the CE data and what they can offer.
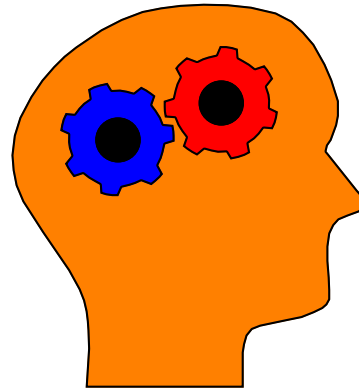
But want to learn more?

Join Us!
The Consumer Expenditure Survey Microdata Users' Workshop
July 2025
Virtual Event

NO REGISTRATION FEE!

Workshop details available at:
https://www.bls.gov/cex/csxannualworkshop.htm

Training materials available here:

- Getting Started Guide--
  https://www.bls.gov/cex/pumd/documentation/trainings.zip

- Data Sets (1980-81, 1984-2021)--
  https://www.bls.gov/cex/pumd_data.htm

The End.

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