

# *Introducing a Consumption Measure with Examples for Poverty and Inequality Analysis: A New Measure from the U.S. Bureau of Labor Statistics*

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*Co-authored with Thesia Garner, Brett Matsumoto, Adam Safir, and Scott Curtin*

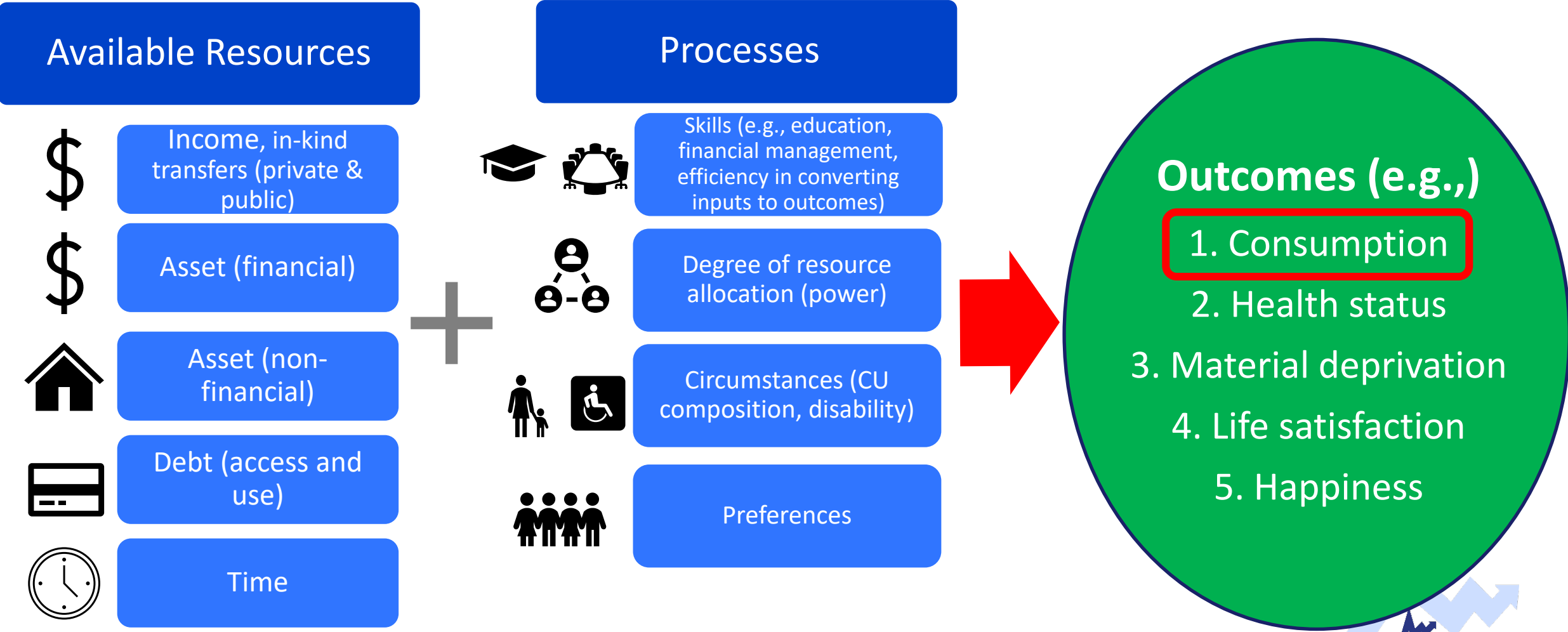
*2023 Society of Government Economist Annual Conference*

*April 20, 2023*

*Session 4B: Poverty 3:15 – 4:15 p.m.*



# Consumption as a Well-being Outcome: A Function of Resources and Processes



# Why Produce a Comprehensive Consumption Measure?

- Alternative measure of well-being based on outcomes
- Related academic work: Johnson, Smeeding, and Torrey (2005); Meyer and Sullivan (2012); Fisher, Johnson, and Smeeding (2015)
- Supports work and recommendations
  - ▶ Interagency Technical Working Group (ITWG) on Evaluating Alternative Measures of Poverty (2020)
  - ▶ CNSTAT Panel An Integrated System of U.S. Household Income, Wealth, and Consumption Data and Statistics to Inform Policy and Research (present)
  - ▶ OECD expert groups on distributions of income, consumption, and wealth (micro and macro groups)
- Need to go beyond expenditures: Period of COVID-19 and consumption of home production

❖ *NOTE: Have presented earlier work on progressions of our measure and used in inequality and poverty at various venues during 2022 (e.g., ASSA, APPAM, SGE, OECD, CNSTAT, FESAC, JSM, SEA)*



# Data and Definition

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# Data Sources for *Current Consumption Measure*

## For Most Goods and Services:

### ***U.S. Consumer Expenditure Survey Interview***

- Time period: (T)Q2 to (T+1)Q1 to represent T year
- Interviewed up to 4 times, 3-month recall
- Consumer unit (CU)
- Out-of-pocket spending for most goods and services
- Rental equivalence for owned shelter
- Rent paid & characteristics to impute market rents when in-kind rental assistance
- Stock of cars and trucks to produce flow of services

### **In-kind Employer Health Insurance Benefits**

- Medical Expenditure Panel Survey (MEPS-IC) from the Agency for Healthcare Research and Quality

### **College Room and Board**

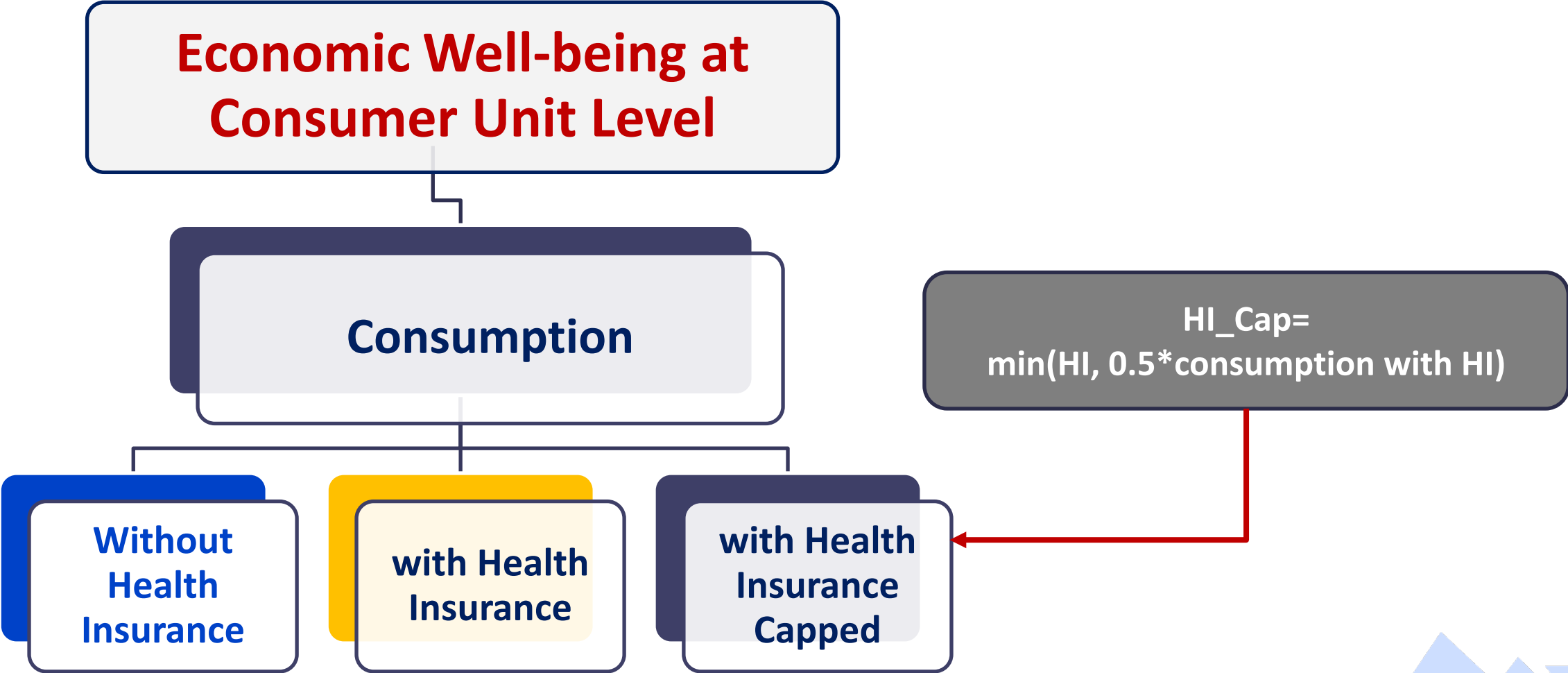
- U.S. Department of Education Statistics

## Other In-kind Federal Government Benefits

- CPS-ASEC (households/members): reported receipt of government provided in-kind benefits
  - ▶ School meals (NSLP)
  - ▶ Women, infants, and children (WIC)
  - ▶ LIHEAP (receipt and values)
- USDA: food assistance programs
- Center for Medicare and Medicaid Services (CMS) National Health Expenditure (NHE)
  - ▶ Medicare
  - ▶ Medicaid
- National Health Expenditure Tables



# Consumption Definitions for Inequality and Poverty Analysis



NOTE: None of these measures include "Education"



# Moving From Expenditures to Consumption

## Quarterly Means for 2020

Category	Total Expenditures	Total Expenditures, excluding gifts	Consumption without health insurance	Consumption with health insurance	Consumption with health insurance capped
Quarterly Expenditures or Consumption	\$14,555	\$14,386	\$12,158	\$16,767	\$16,675
Percent that is imputed	-	-	11.31%	31.87%	29.86%
Shelter	\$3,133	\$3,114	\$5,014	\$5,014	\$5,014
Utilities	\$1,049	\$1,044	\$1,047	\$1,047	\$1,047
Household Operations	\$362	\$357	\$309	\$309	\$309
Household Furnishings	\$493	\$480	\$408	\$408	\$408
Transportation	\$2,430	\$2,404	\$2,046	\$2,046	\$2,046
Health	\$1,227	\$1,225	-	\$4,609	\$4,517
Investments	\$2,440	\$2,379	-	-	-
Other	\$3,423	\$3,382	\$3,333	\$3,333	\$3,333

# Moving from Expenditures to Consumption with Health Insurance: Nominal Quarterly Means

Measure	2019	2020	2021 (preliminary)
CE Defined Total Expenditures	\$14,717	\$14,555	\$16,196
CE Defined Total Expenditures NOT Including Gifts Given Outside	\$14,509	\$14,386	\$15,955
Consumption without Health	\$12,395	\$12,158	\$13,562
Consumption with Health Insurance	\$16,792	\$16,767	\$18,062
Consumption with Health Insurance Capped	\$16,716	\$16,675	\$18,004

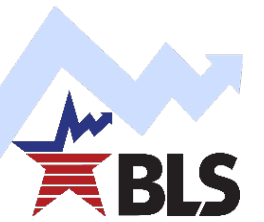
NOTE: Population weighted (FINLW21); consumption does not include education.



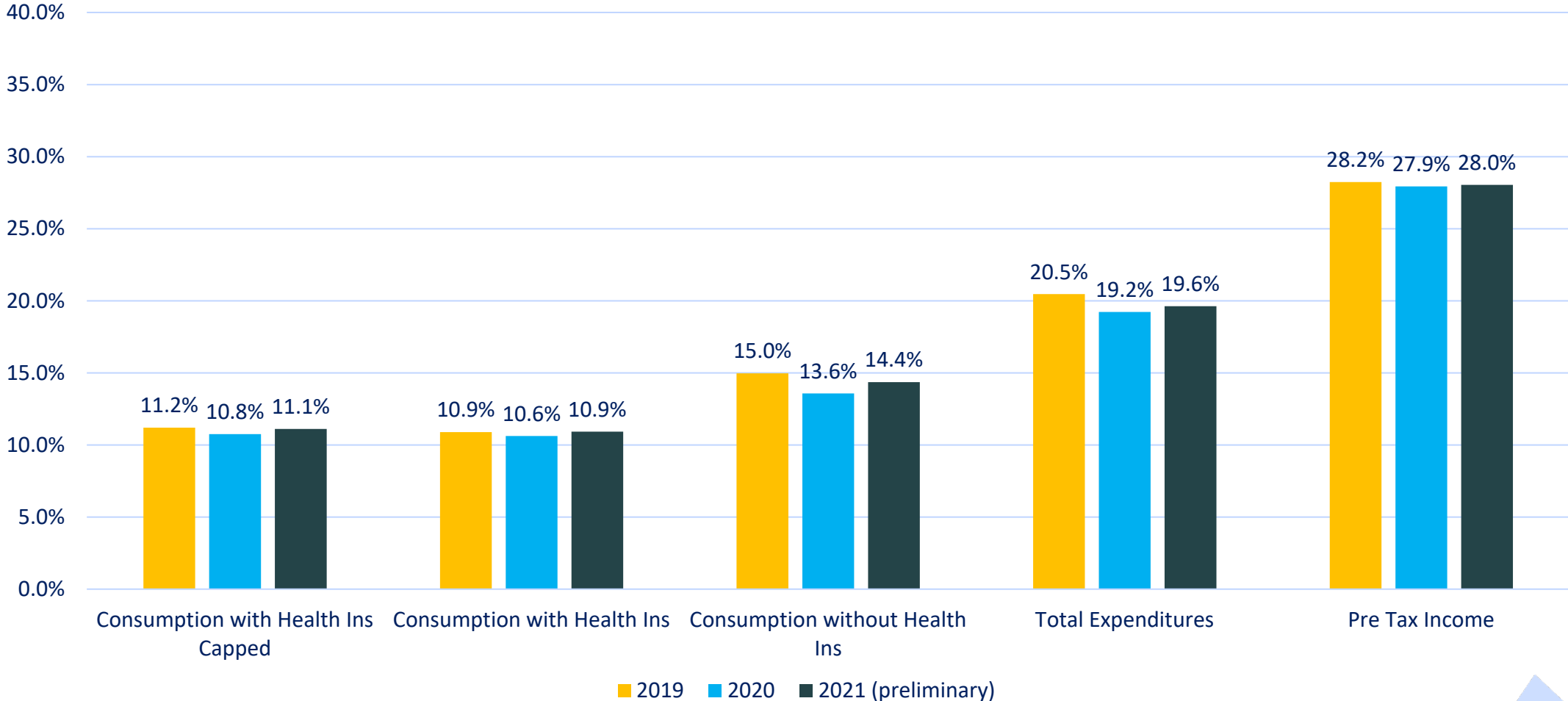


# Poverty and Inequality Analysis

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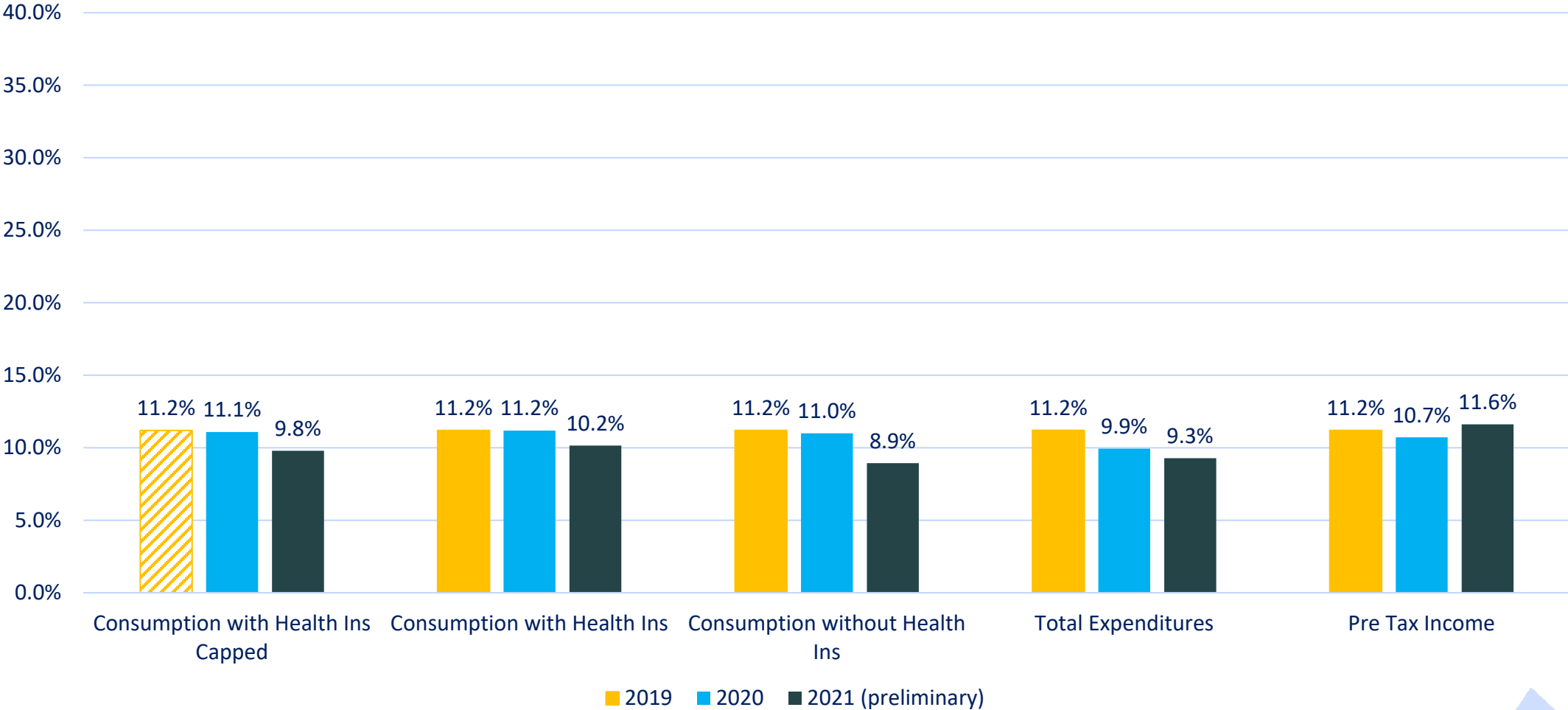
# Poverty Rates for Total Population Based on Relative Thresholds



NOTE: Thresholds based on quarterly adult equivalized values; population weighted (FINLWT21\*Cuize); consumption with health insurance not capped and capped at 50% of total; measures do not include education



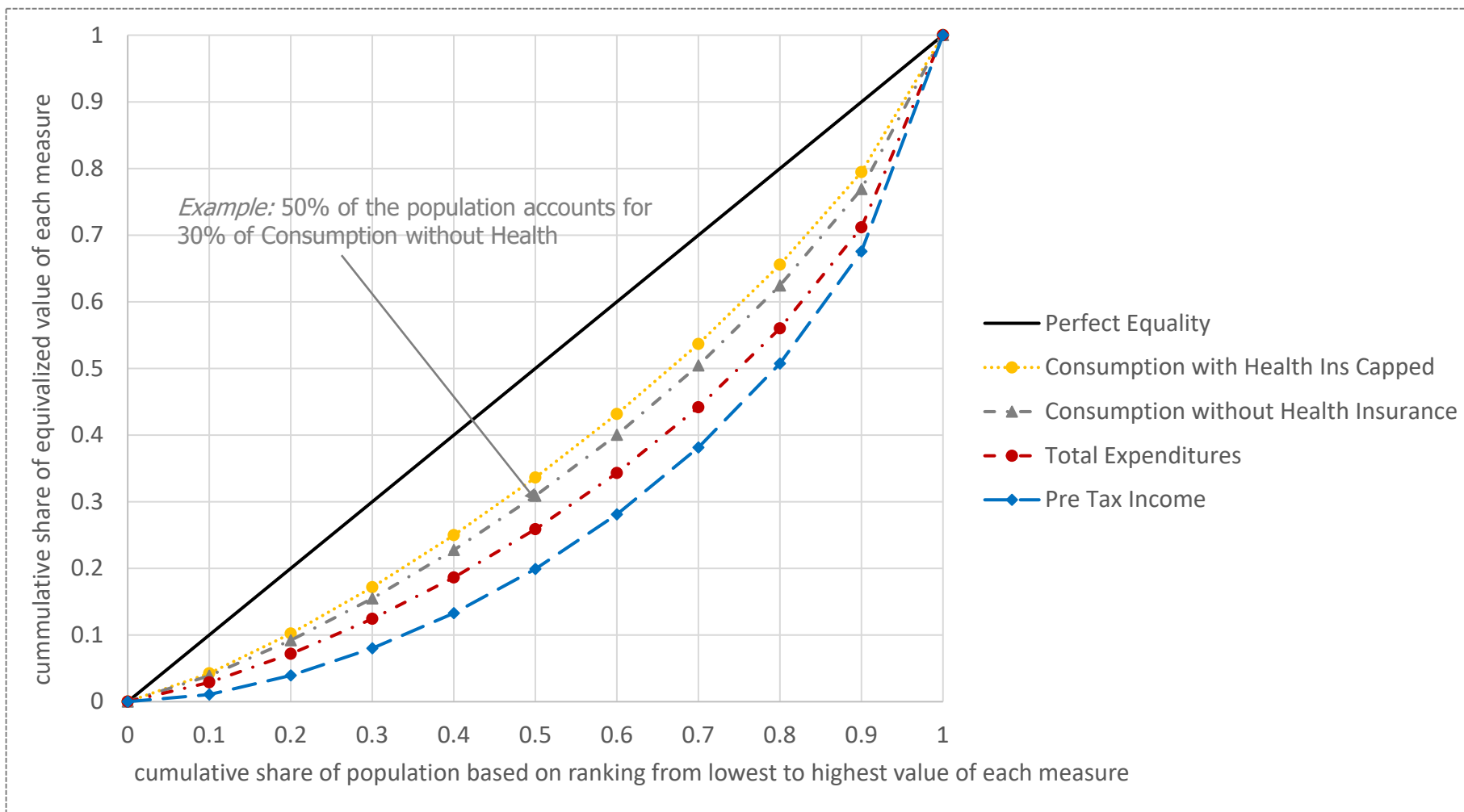
# Poverty Rates for Total Population Based on Relative Thresholds that Result in Same Consumption Poverty Rate for 2019



NOTE: Thresholds based on quarterly adult equivalized values; population weighted (FINLWT21\*Cusize); consumption with health insurance not capped and capped at 50% of total; measures do not include education



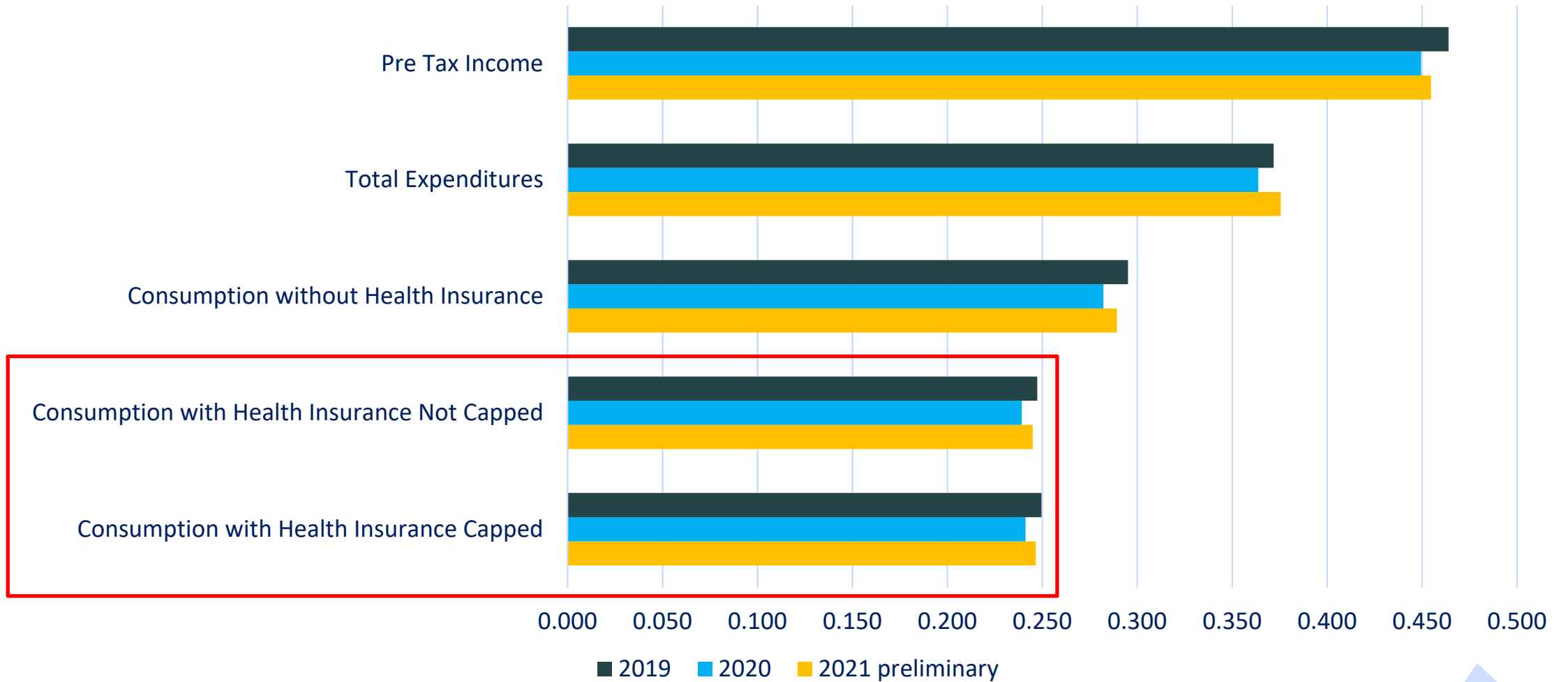
# Inequality: Lorenz Curves for of Equivalized Consumption, Expenditures, and Income: 2020



NOTE: Based on quarterly adult equivalized values; population weighted (FINLW21\*Csuzize); consumption with health only includes health insurance; Consumption measures do not include education



# Inequality: Gini Coefficients of Equivalized Consumption, Expenditures, and Income



NOTE: Based on quarterly adult equivalized values; population weighted (FINLW21\**C*size); consumption with health only includes health insurance; Consumption measures do not include education



# Next Steps

## ■ Release

- ▶ Publish article in *Monthly Labor Review* (published yesterday)
- ▶ Publish table of means by commodity group (without home production) for 2019 and 2020 on CE webpage (summer)
- ▶ *To be determined*: release microdata file with consumption components
- ▶ Progress will be posted on <https://www.bls.gov/cex/consumption-home.htm>

## ■ Continue research - data improvements

- ▶ Add value of home production for own consumption
- ▶ Improve Imputations
- ▶ Refine the health insurance measure and research on capping
- ▶ Evaluate options to include education



# Contact

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# Moving From Expenditures to Consumption

## Quarterly Means for 2020

Category	Total Expenditures	Total Expenditures, excluding gifts	Consumption without health insurance	Consumption with health insurance	Consumption with health insurance capped
Shelter	\$3,133	\$3,114	\$5,014	\$5,014	\$5,014
Owned Dwelling	\$1,849	\$1,849	\$3,518	\$3,518	\$3,518
Rented Dwelling	\$1,100	\$1,089	\$1,188	\$1,188	\$1,188
Other lodging	\$184	\$176	\$308	\$308	\$308
Household Operations	\$362	\$357	\$309	\$309	\$309
Child Daycare Expenses	\$48	\$48	-	-	-
Other Out-of-Pocket	\$313	\$309	\$309	\$309	\$309
Household Furnishings	\$493	\$480	\$408	\$408	\$408
Major Kitchen Appliances	\$72	\$72	-	-	-
Other Out-of-Pocket	\$422	\$408	\$408	\$408	\$408



# Moving From Expenditures to Consumption

## Quarterly Means for 2020

Category	Total Expenditures	Total Expenditures, excluding gifts	Consumption without health insurance	Consumption with health insurance	Consumption with health insurance capped
Transportation	\$2,430	\$2,404	\$2,046	\$2,046	\$2,046
Vehicle Purchase (net outlay)	\$1,208	\$1,188	-	-	-
Depreciation and Opportunity Cost	-	-	\$829	\$829	\$829
Gas, Other Fuels, and Oil	\$386	\$384	\$384	\$384	\$384
Other vehicle expenses	\$782	\$782	\$782	\$782	\$782
Public and Other Transportation	\$54	\$51	\$51	\$51	\$51



# Moving From Expenditures to Consumption

## Quarterly Means for 2020

Category	Total Expenditures	Total Expenditures, excluding gifts	Consumption without health insurance	Consumption with health insurance	Consumption with health insurance capped
Health	\$1,227	\$1,225	-	\$4,609	\$4,517
Health Insurance	\$918	\$917	-	\$4,609	\$4,517
Medical Services	\$217	\$215	-	-	-
Prescription Drugs	\$65	\$65	-	-	-
Medical Supplies	\$29	\$28	-	-	-

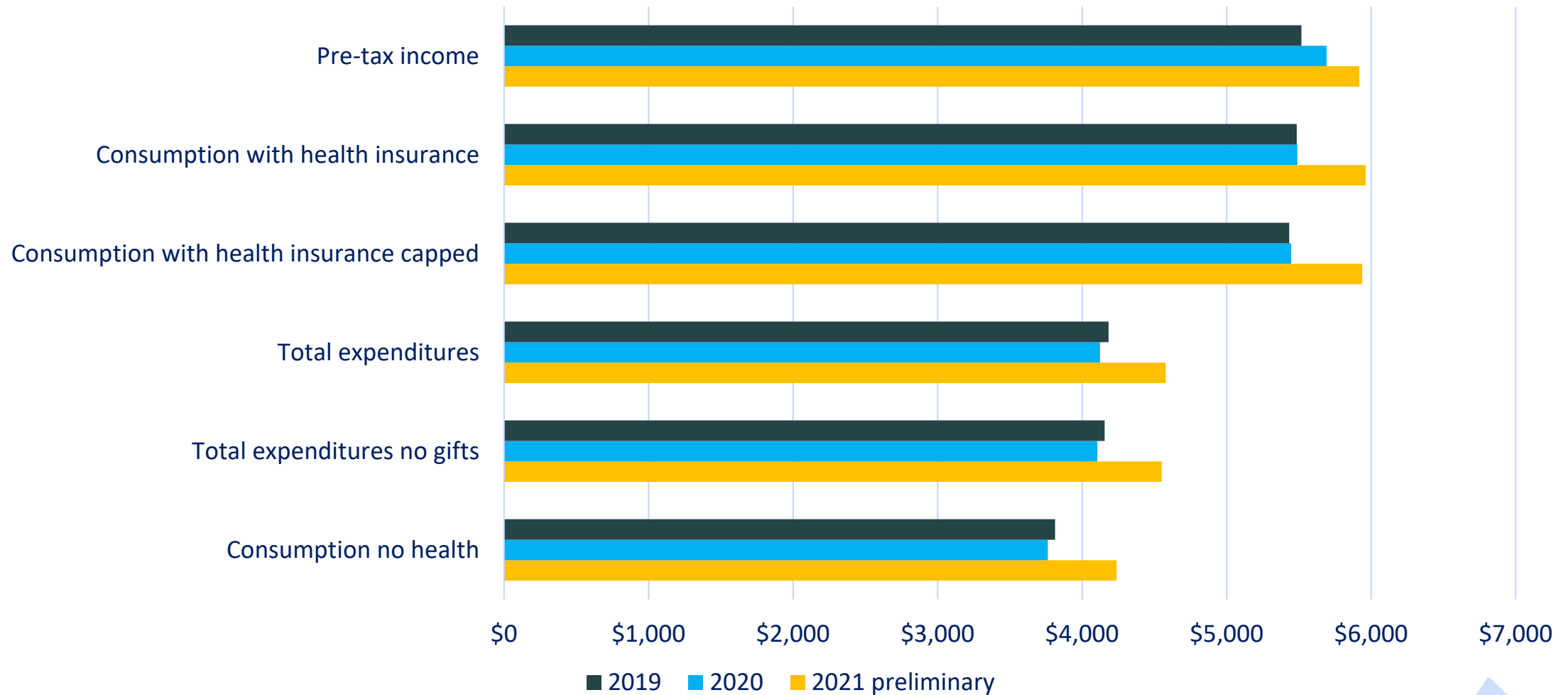


# Moving From Expenditures to Consumption

## Quarterly Means for 2020

Category	Total Expenditures	Total Expenditures, excluding gifts	Consumption without health insurance	Consumption with health insurance	Consumption with health insurance capped
Other	\$3,423	\$3,382	\$3,333	\$3,333	\$3,333
Food	\$2,139	\$2,136	\$2,142	\$2,142	\$2,142
Alcohol	\$112	\$112	\$112	\$112	
Apparel	\$251	\$237	\$237	\$237	\$237
Entertainment	\$626	\$615	\$560	\$560	\$560
Motorized Recreational Vehicles (net outlays)	\$55	\$55	-	-	-
Other Out-of-Pocket	\$571	\$560	\$560	\$560	\$560
Personal Care Products	\$68	\$67	\$67	\$67	\$67
Reading	\$16	\$15	\$15	\$15	\$15
Tobacco and Smoking Supplies	\$76	\$76	\$76	\$76	\$76
Miscellaneous	\$135	\$124	\$124	\$124	\$124

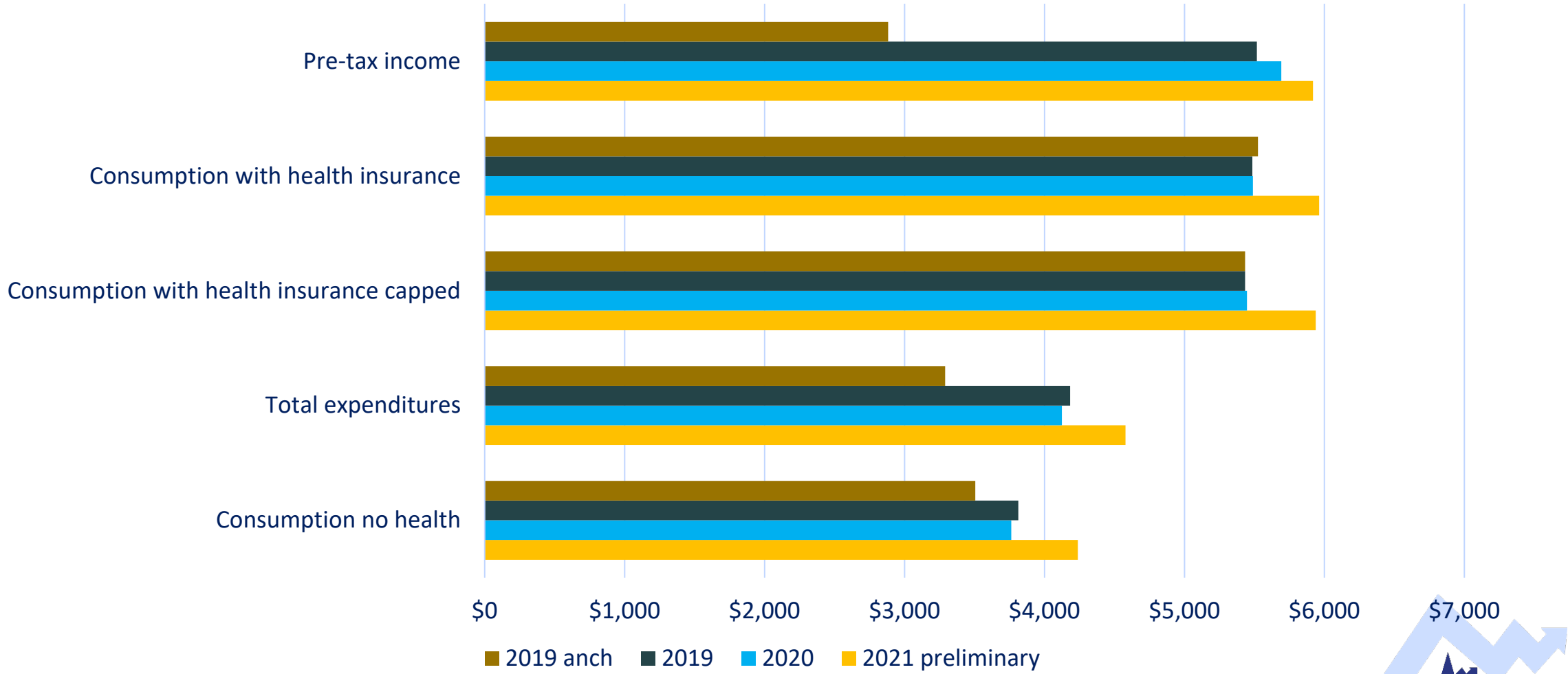
# Relative Thresholds Based on Quarterly Values



NOTE: Based on quarterly adult equivalized values; population weighted (FINLW21\**C*usize); consumption with health only includes health insurance; Consumption measures do not include education



# Thresholds Based on Anchoring Poverty Rate to Consumption with H Ins Capped 2019 & Relative Thresholds



# Appendix – Table Data from previous Charts

(Not included in original presentation)



# Slide 10 Table: Poverty Rates for Total Population Based on Relative Thresholds

Year	Consumption with Health Ins Capped	Consumption with Health Ins	Consumption Without Health Ins	Total Expenditures	Pre Tax Income
2019	11.2%	10.9%	15.0%	20.5%	28.2%
2020	10.8%	10.6%	13.6%	19.2%	27.9%
2021	11.1%	10.9%	14.4%	19.6%	28.0%



# Slide 11 Table: Poverty Rates for Total Population Based on Relative Thresholds that Result in Same Consumption Poverty Rate for

2010

Year	Consumption with Health Ins Capped	Consumption with Health Ins	Consumption Without Health Ins	Total Expenditures	Pre Tax Income
2019	11.2%	11.2%	11.2%	11.2%	11.2%
2020	11.1%	11.2%	11.0%	9.9%	10.7%
2021	9.8%	10.2%	8.9%	9.3%	11.6%





# Slide 12 Table: Cumulative Shares of Equivalized Values

Cumulative share of population based on ranking from lowest to highest value of each measure	Perfect Equality	Consumption With health ins Capped	Consumption without health insurance	Total Expenditures	Pre Tax Income
0.1	0.1	0.04233	0.03883	0.02890	0.01058
0.2	0.2	0.10206	0.09194	0.07171	0.03935
0.3	0.3	0.17167	0.15488	0.12428	0.07994
0.4	0.4	0.24978	0.22743	0.18624	0.13269
0.5	0.5	0.33621	0.30896	0.25858	0.19901
0.6	0.6	0.43144	0.40042	0.34296	0.28101
0.7	0.7	0.53666	0.50441	0.44167	0.38140
0.8	0.8	0.65546	0.62439	0.56001	0.50740
0.9	0.9	0.79458	0.76918	0.71162	0.67548
1.0	1.0	1.0	1.0	1.0	1.0



# Slide 13 Table: Gini Coefficients of Equivalized Consumption, Expenditures, and Income

Year	Pre Tax Income	Total Expenditures	Consumption without Health Insurance	Consumption with Health Insurance Not Capped	Consumption with Health Insurance Capped
2019	0.464	0.372	0.295	0.247	0.250
2020	0.449	0.364	0.282	0.239	0.241
2021	0.455	0.376	0.289	0.245	0.247



# Slide 20 Table: Relative Thresholds Based on Quarterly Values

Year	Pre-tax income	Consumption with health insurance	Consumption with health insurance capped	Total expenditures	Total expenditures no gifts	Consumption no health
2019	\$5,518	\$5,485	\$5,433	\$4,183	\$4,155	\$3,813
2020	\$5,692	\$5,489	\$5,446	\$4,124	\$4,106	\$3,763
2021	\$5,919	\$5,962	\$5,938	\$4,579	\$4,550	\$4,238



# Slide 21 Table: Thresholds Based on Anchoring Poverty Rate to Consumption with H Ins Capped 2019 & Relative Thresholds

Year	Pre-tax income	Consumption with health insurance	Consumption with health insurance capped	Total expenditures	Consumption no health
2019 Anchoring	\$2,883	\$5,525	\$5,433	\$3,290	\$3,505
2019	\$5,518	\$5,485	\$5,433	\$4,183	\$3,813
2020	\$5,692	\$5,489	\$5,446	\$4,124	\$3,763
2021	\$5,919	\$5,962	\$5,938	\$4,579	\$4,238

