



# Estimating HUD Assisted Household Employment by Industry Through Matched ACS Data

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*This research is my own and should not be attributed to the Department.*





# Background

- HUD's main rental assistance programs\* assist over 9 million people in over 4 million low-income households annually
- The programs are administered by local Public Housing Agencies or property owners, who collect required administrative data on households and report the data to HUD
- HUD has provided its administrative data to the Census Bureau's Center for Administrative Records Research and Applications (CARRA) for a number of years

\*Housing Choice Voucher, Public Housing, and Project Based Rental Assistance Programs





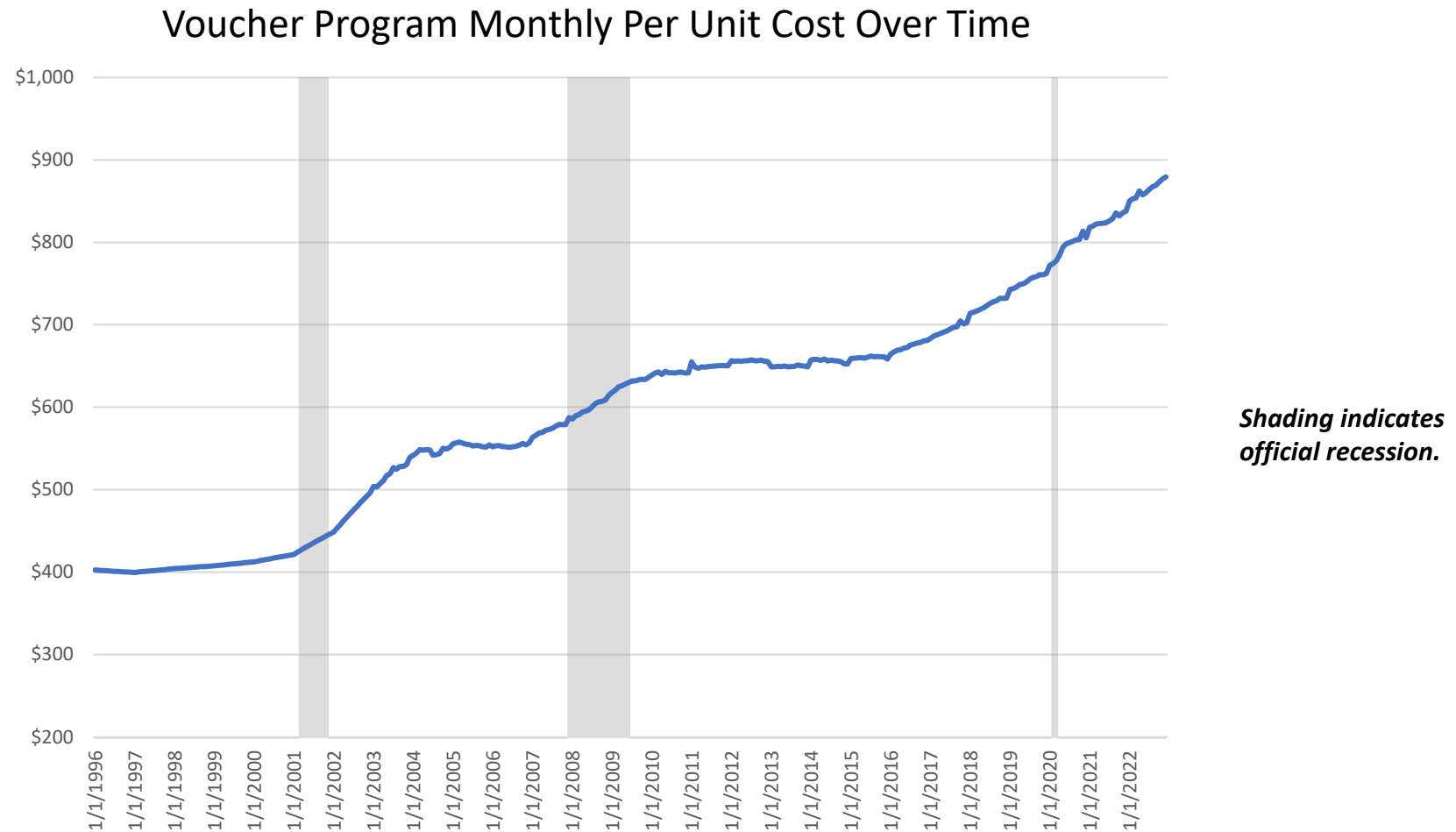
# Background

- HUD's administrative data include total household income as well as source of income (wages, benefits, etc.)
- About 22% of HUD assisted households have wages as their major source of income (2021 *Picture of Subsidized Households*)
- Under program rules, households generally pay 30% of their income towards rent, with a subsidy making up the remainder



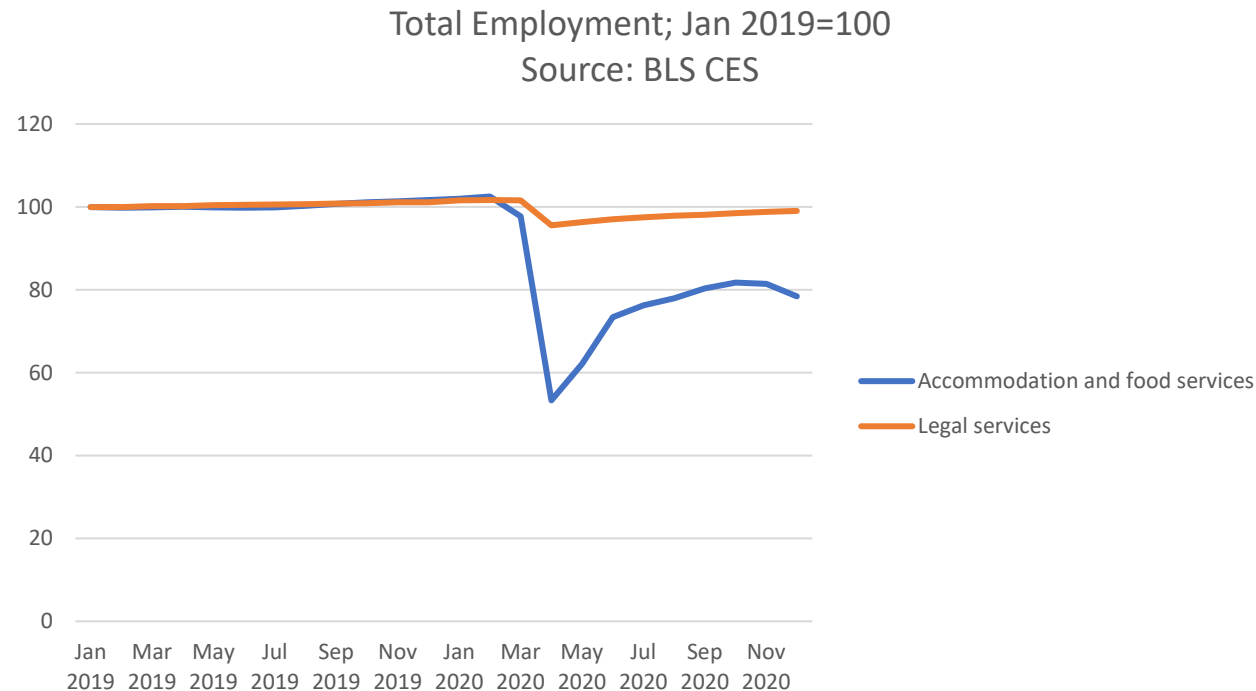
# Background

- Program costs are therefore sensitive to economic condition



# Background

- The Covid-19 induced recession in 2020 lead to a sharp downturn in employment
- Because of the nature of the shock, different industries experienced sharply different effects



# Background

- The ACS asks respondents for their industry and occupation, if employed

**c. What kind of business or industry was this?**  
*Include the main activity, product, or service provided at the location where employed. (For example: elementary school, residential construction)*

**d. Was this mainly – Mark (X) ONE box.**

- ☐ manufacturing?
- ☐ wholesale trade?
- ☐ retail trade?
- ☐ other (agriculture, construction, service, government, etc.)?

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# Background

- The Census Bureau uses its Person Identification Validation System to assign a unique identifier, a Protected Identification Key (**PIK**) based on Social Security Numbers, Dates of Birth and Names, to the microdata in both the ACS and HUD's administrative tenant data.
- The Census also assigns a Master Address File Identification code (**MAFID**) based on the address of a housing unit.

# Analysis

HUD Housing Choice Voucher Program  
Participants



**PIK**

HUD Public Housing Program  
Participants



**MAFID**

HUD Project Based Rental Assistance  
Program Participants

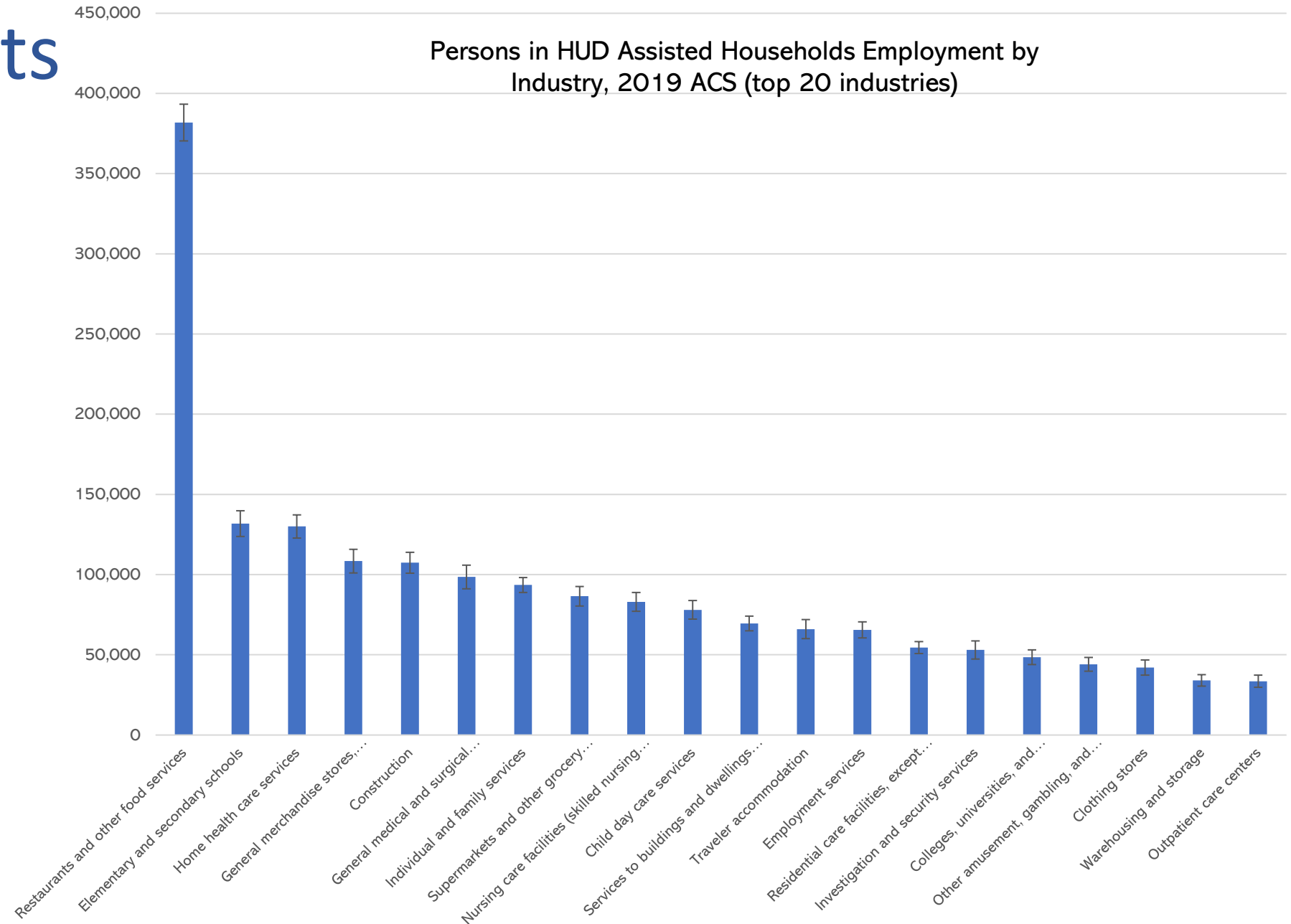
ACS  
Microdata





# Results

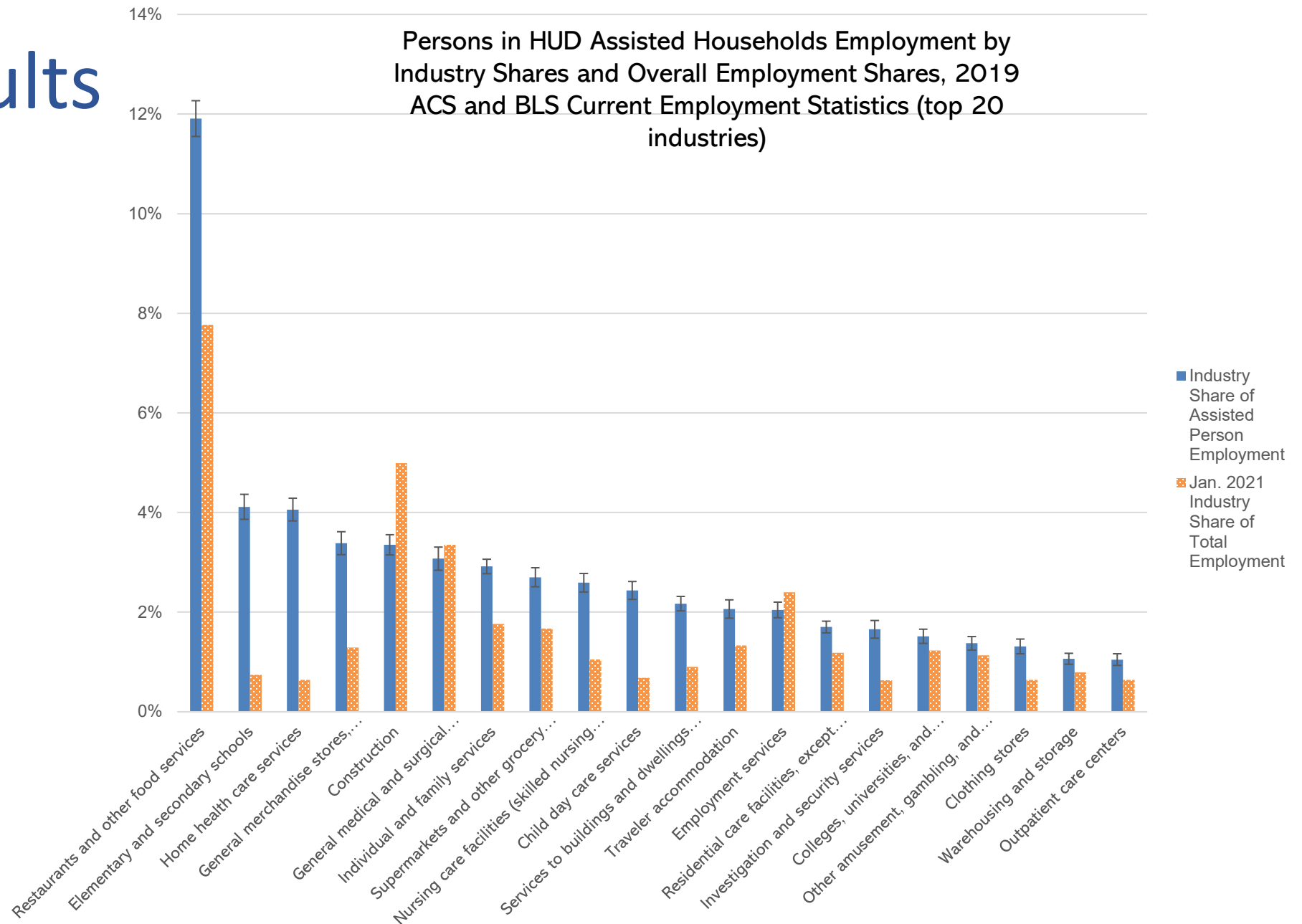
The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release. CBDRB-FY21-POP001-0059





# Results

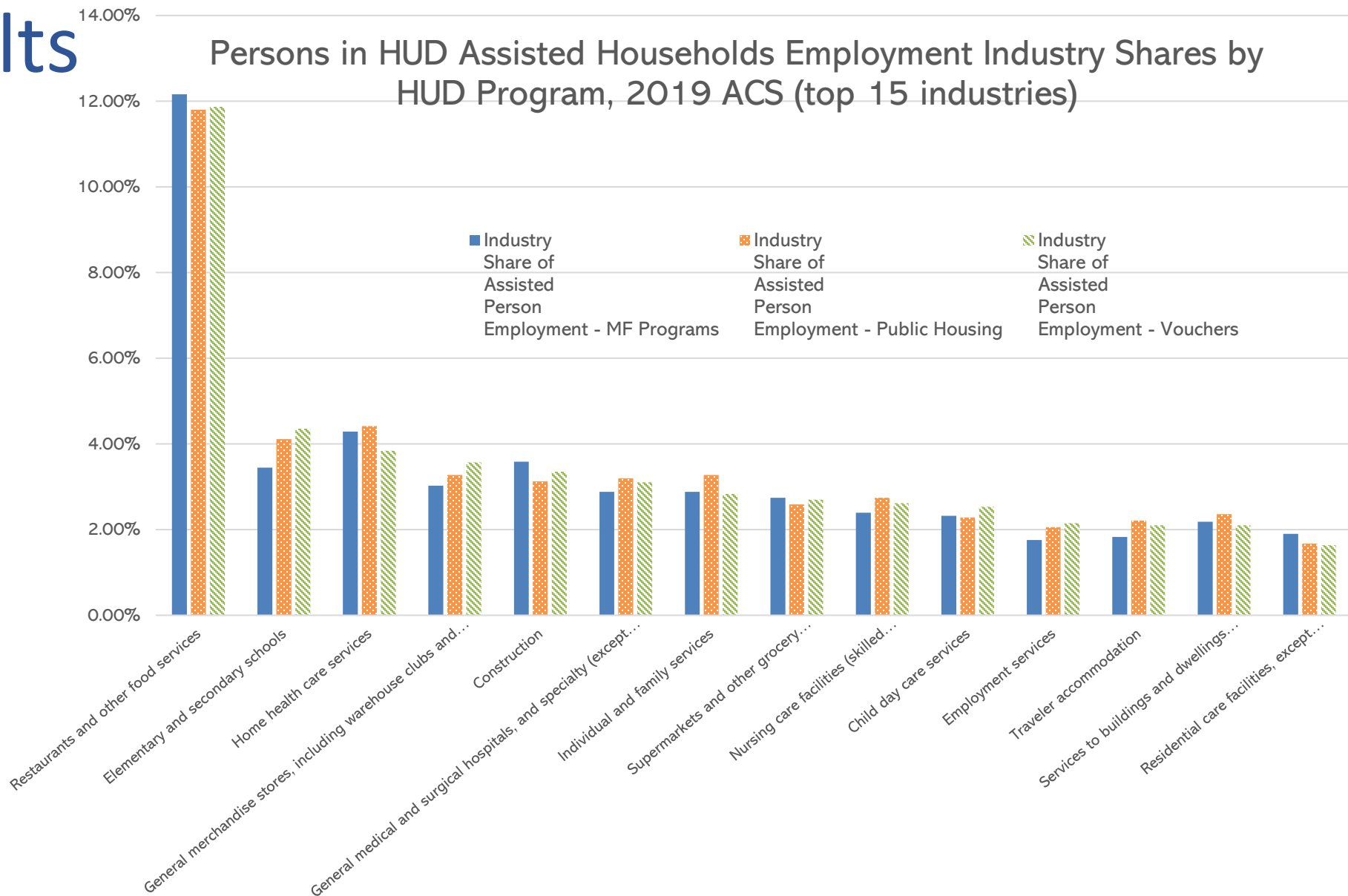
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# Results

Persons in HUD Assisted Households Employment Industry Shares by HUD Program, 2019 ACS (top 15 industries)



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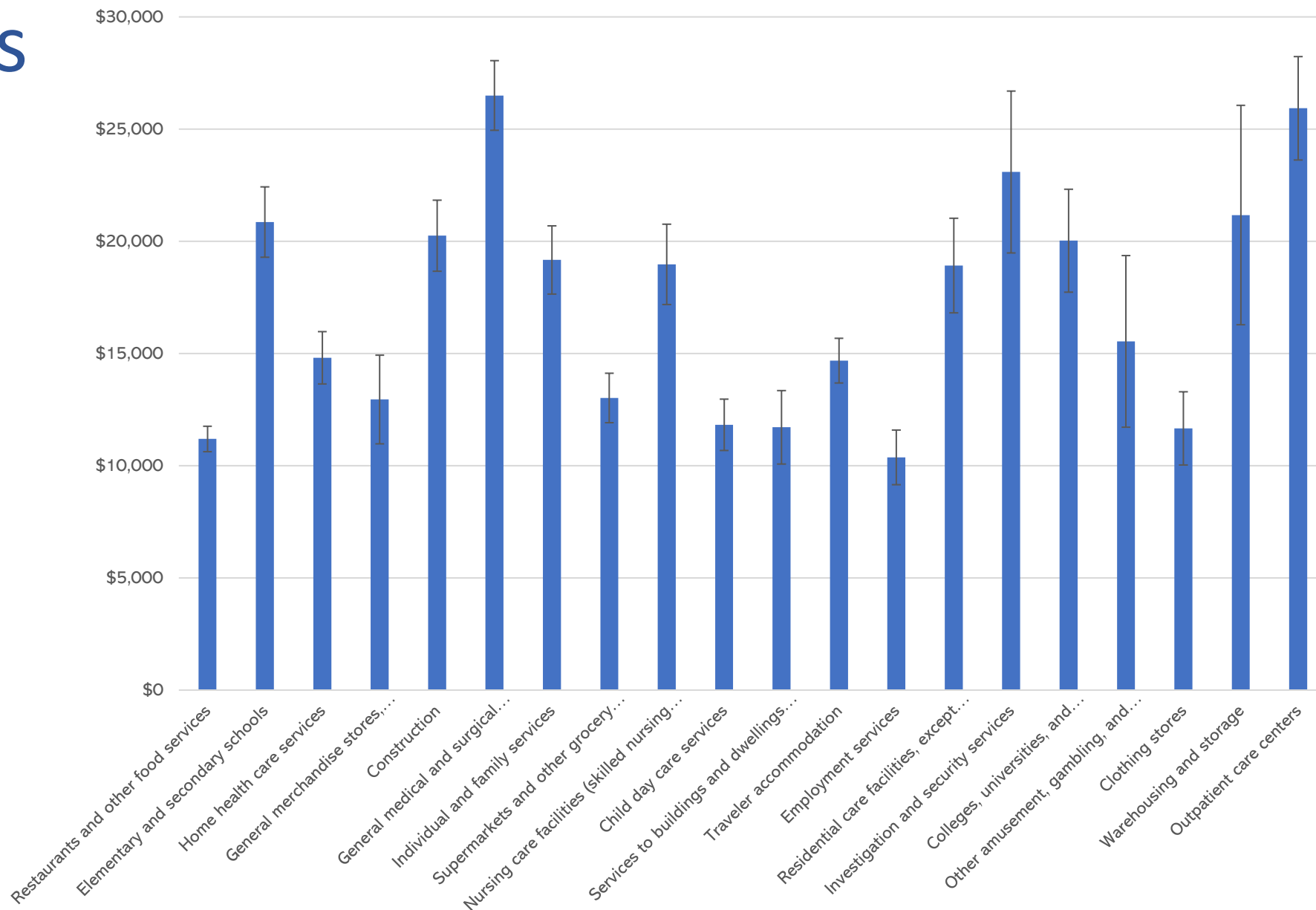


# Results

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Persons in HUD Assisted Housing Average Annual Wage by Industry, 2019 ACS





# Results

	Change in Per Unit Cost in the Housing Choice Voucher Program
2013	-1.0%
2014	1.0%
2015	0.6%
2016	2.0%
2017	3.0%
2018	4.3%
2019	4.0%
2020	5.4%
2021	4.2%
2022	4.4%



# Challenges

- Non-standard (i.e., not NAICS) Industry Codes used by Census
- Learning curve for working in Integrated Research Environment at Census



# Next Steps

- Continue tracking over time
- Other applications of matched ACS-HUD data?
  - Or other Census surveys like the COVID Pulse survey