



Demographics of the CMV Workforce

Presentation to WOTAB| August 14, 2023



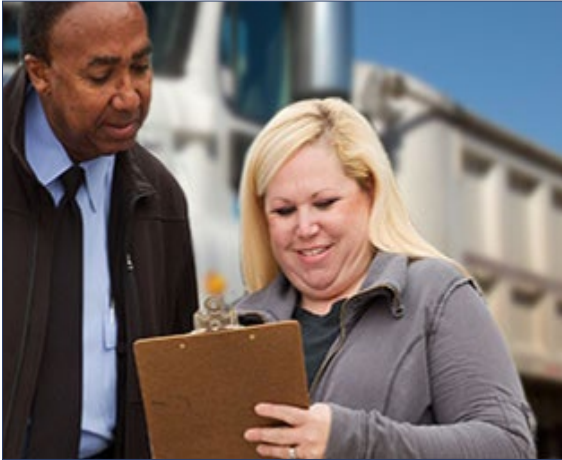
U.S. Department of Transportation
Federal Motor Carrier Safety Administration

Project Objectives

- Identify **available demographic data** and **data gaps**
- Document **findings about underrepresented groups** among CDL holders and owner-operators



Project Overview



Driver-level Analysis

- CDLIS data
- Census (ACS PUMS) data

Gap Analysis

- FMCSA data
- Federal data
- Other sources



Note: the terms age, sex, male, female, race and ethnicity that are used in the presentation are the terms used in the data that was collected.

Summary of Data Sources

FMCSA Data: CDLIS Sample

Sample of CDL
workforce

Age & sex data for
known CDL holders

Census Data: ACS PUMS

Captures both U.S. labor
force & approximated
CDL holder workforce

Best demographic data
availability

State DBE Databases

Provides sample of
company-level data on
DBEs

Facilitates safety
analysis using MCMIS

Driver-Level Analysis: CDLIS Data



Commercial Driver's License Information System (CDLIS) & Bureau of Labor Statistics (BLS) Data Overview

CDLIS Data: Out-of-State Transactions Dataset

(*n* = 103,896)

- Sample of CDL holders with out-of-state convictions or withdrawals
- Filtered by age (≥ 20 years old) for comparison to BLS employment status data
- Data pulled between 6/30/2020 and 1/19/2022

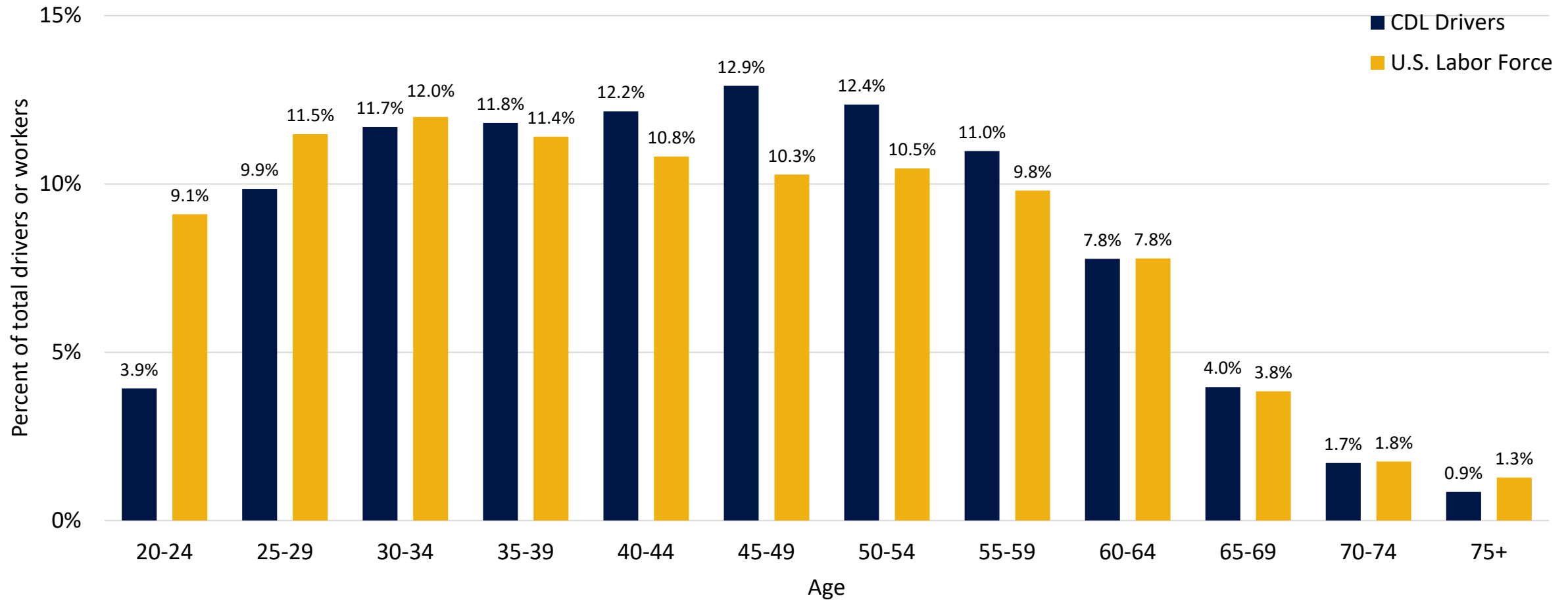
Comparison Data: BLS Current Population Survey (CPS) Tables (*n* = 147,315)

- Used “Employment status of the civilian noninstitutional population by age, sex, and race”
 - Selected those ≥ 20 years old & currently employed for comparison group
 - Selected 2021 data based on average dates of CDLIS pulls



Age – CDL Holders vs. U.S. Labor Force

(CDLIS / BLS)



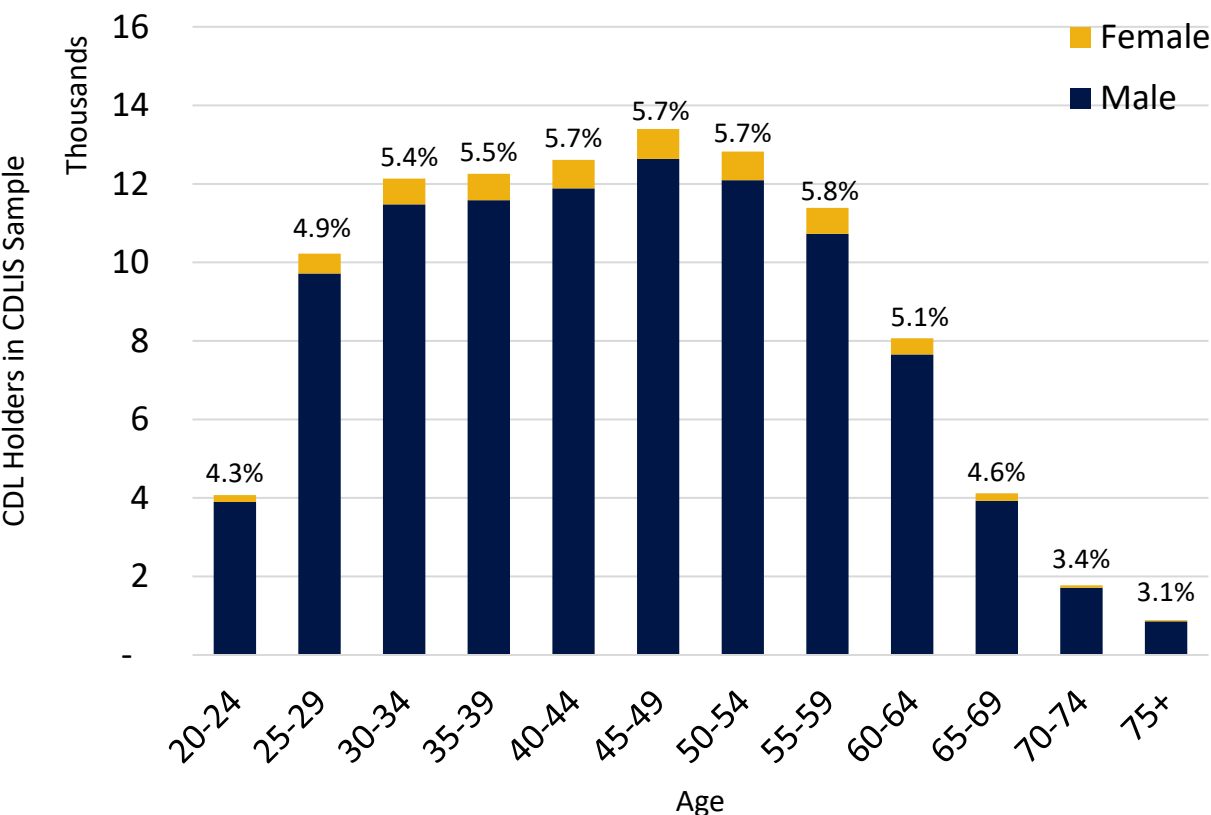
CDL holders skew older than the U.S. Labor Force overall; drivers under 30 are underrepresented.



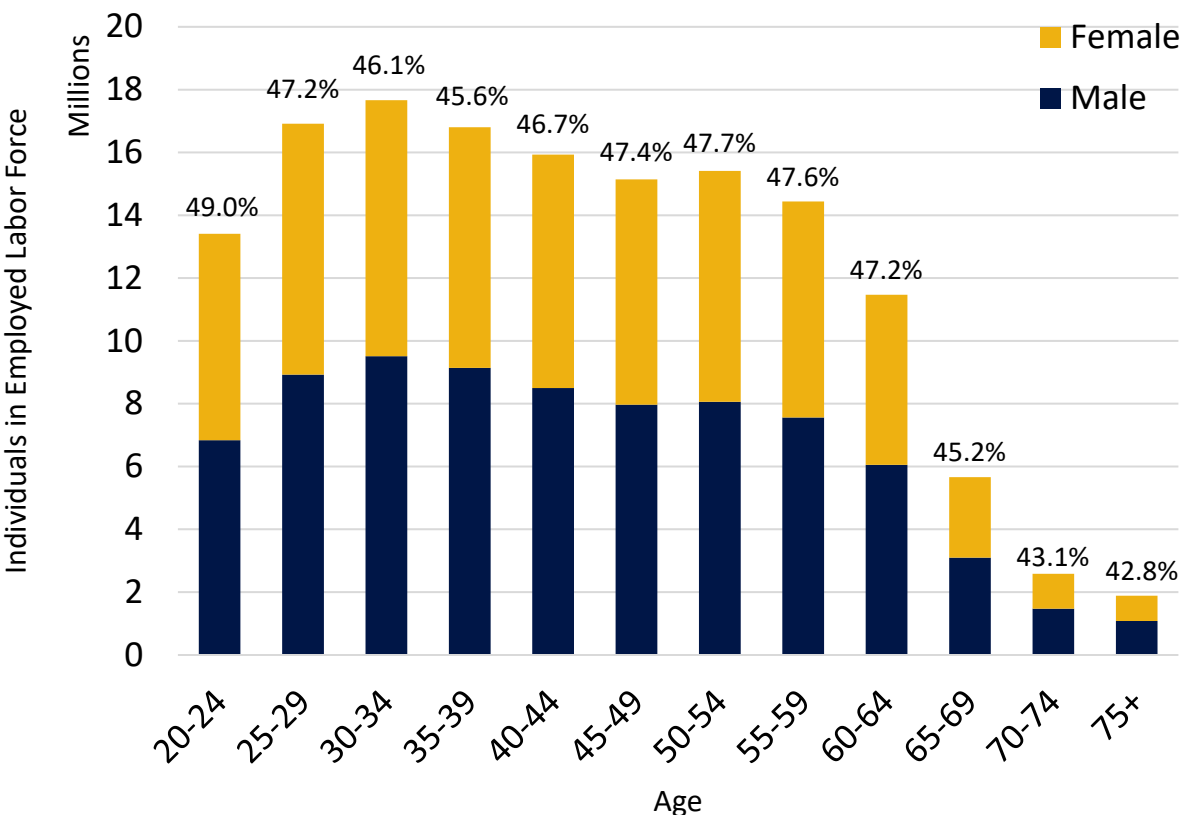
Sex – CDL Holders vs. U.S. Labor Force

(CDLIS / BLS)

CDL Holders



Employed Labor Force



Women are underrepresented among CDL holders compared to women in the labor force.



Driver-Level Analysis: Census ACS PUMS Data



U.S. Census American Communities Survey (ACS) Public Use Microdata Sample (PUMS) Data Overview

ACS PUMS 5-Year Data (2017-2021)

Presumed CDL Holders (“CDL holders”)

(*n* = 168,177)

- Filtered by age ≥ 21 years; civilian; currently employed
- Filtered by occupation & industry codes to identify presumed CDL holders

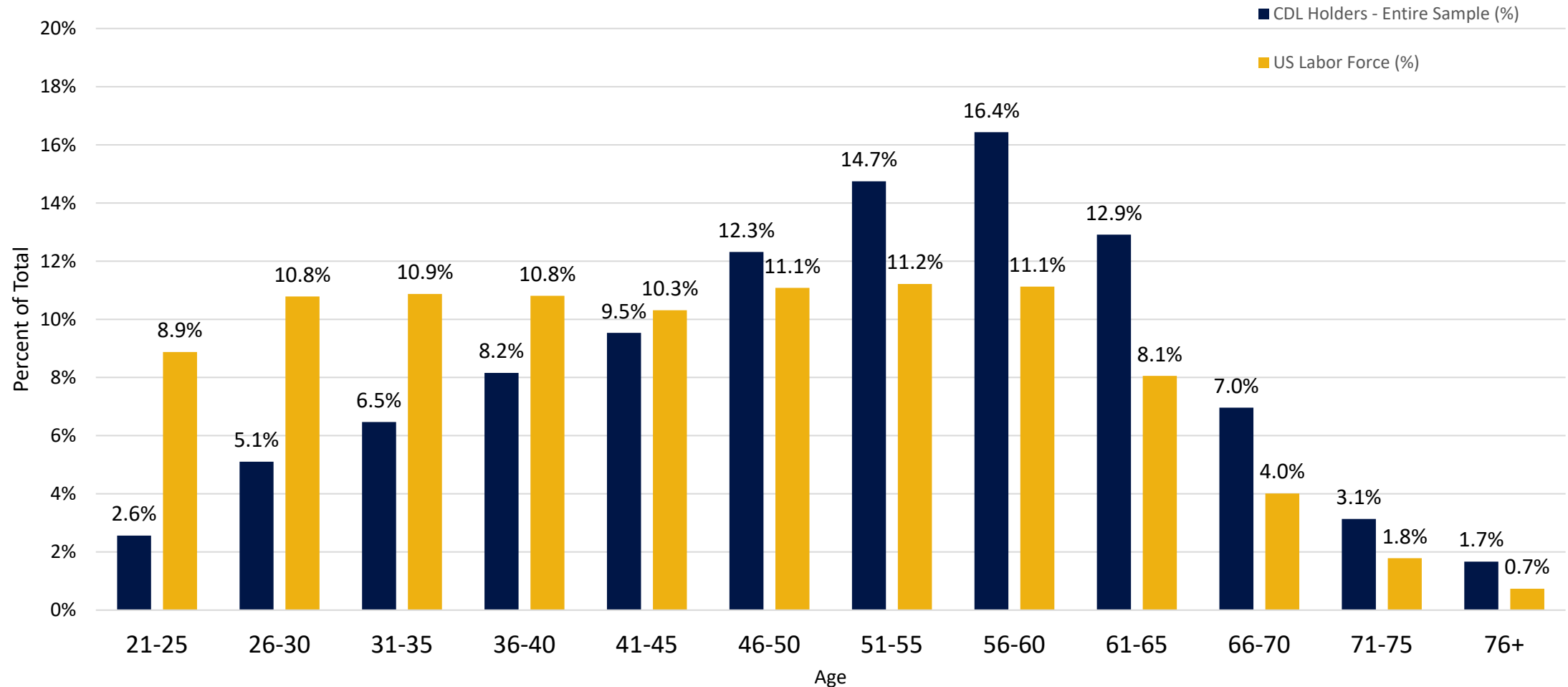
U.S. Employed Labor Force (“Labor Force”)

(*n* = 454,568)

- Filtered by age ≥ 21 years; civilian; currently employed
- Random sample of respondents selected as comparison group

Age – Presumed CDL Holders vs. U.S. Labor Force

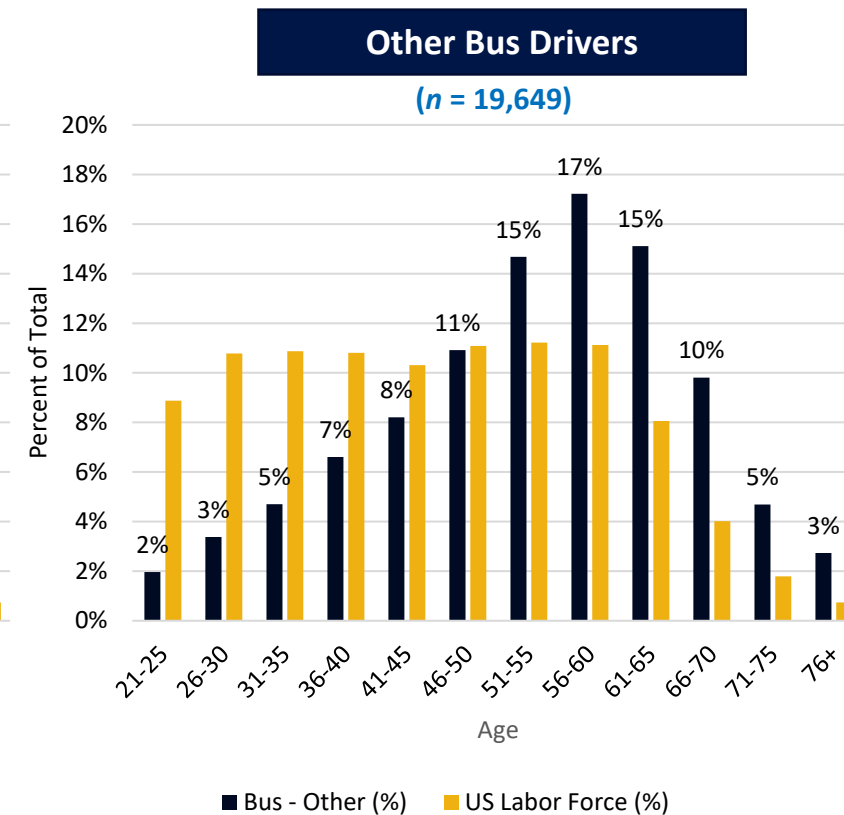
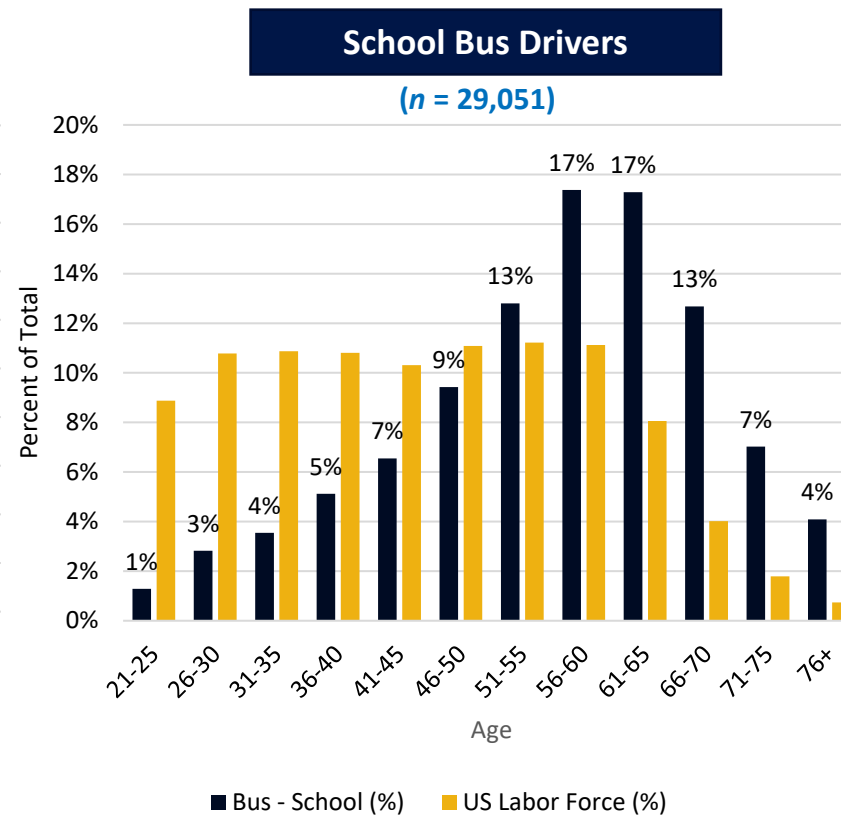
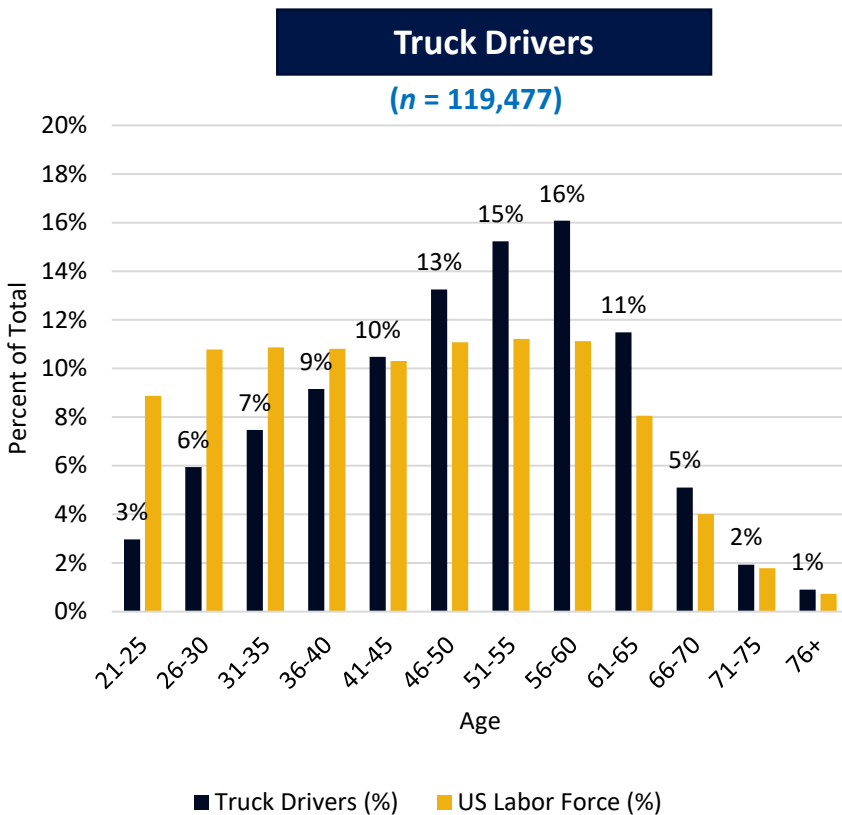
(ACS)



Age – Presumed CDL Holders vs. U.S. Labor Force

Breakout by CDL Occupation

(ACS)

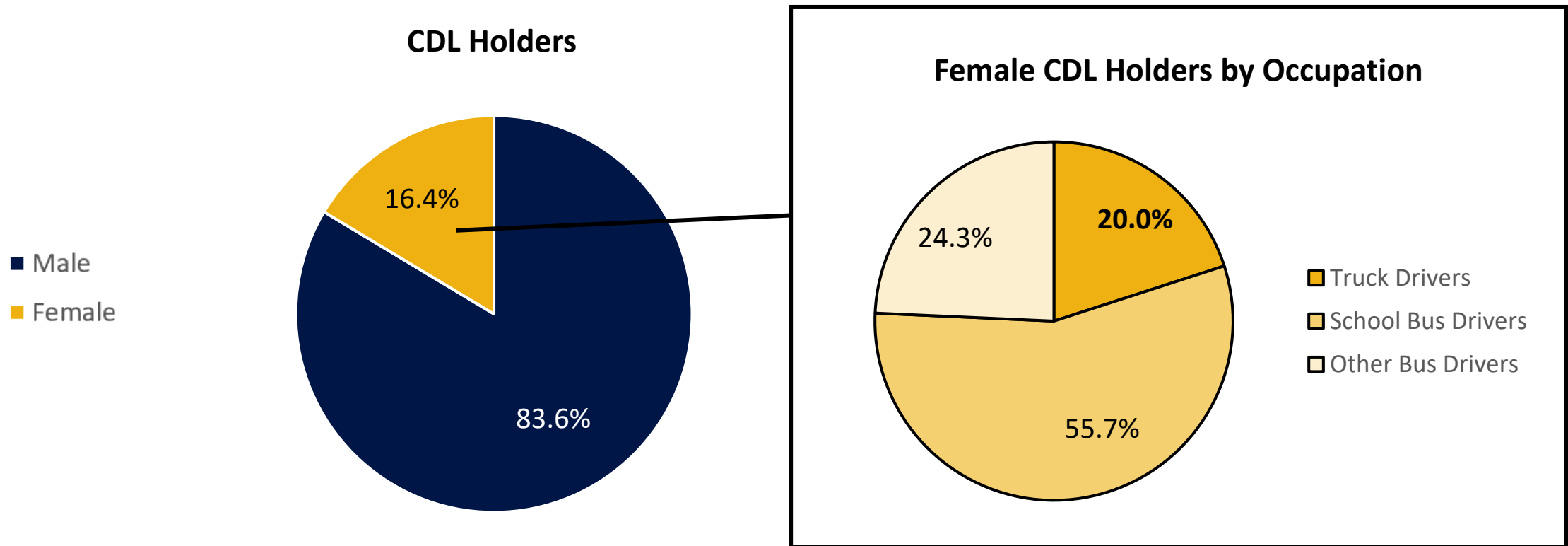


Age distributions vary by CDL occupation: both truck & bus skew older than the U.S. labor force, but bus modes have the largest proportions of older drivers.

Sex – Presumed CDL Holders vs. U.S. Labor Force

(ACS)

Breakout by CDL Occupation



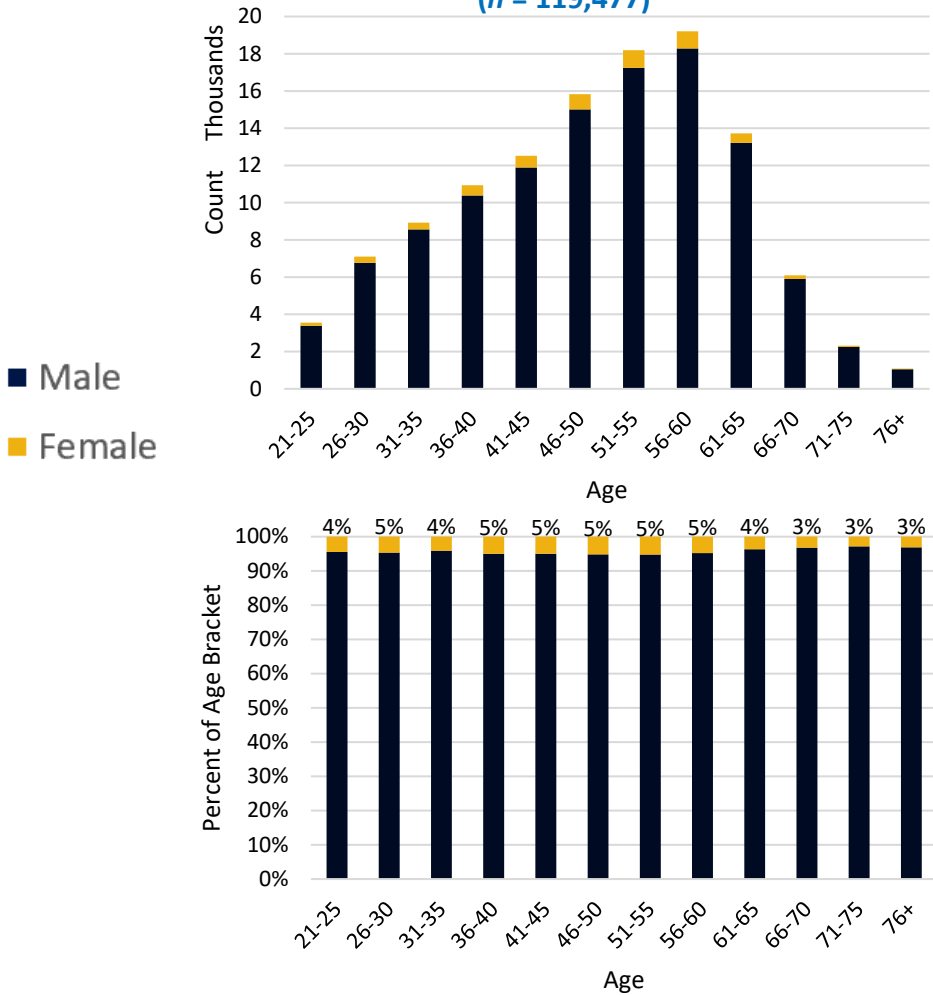
Sex – Presumed CDL Holders vs. U.S. Labor Force

(ACS)

Breakout by Age & CDL Occupation

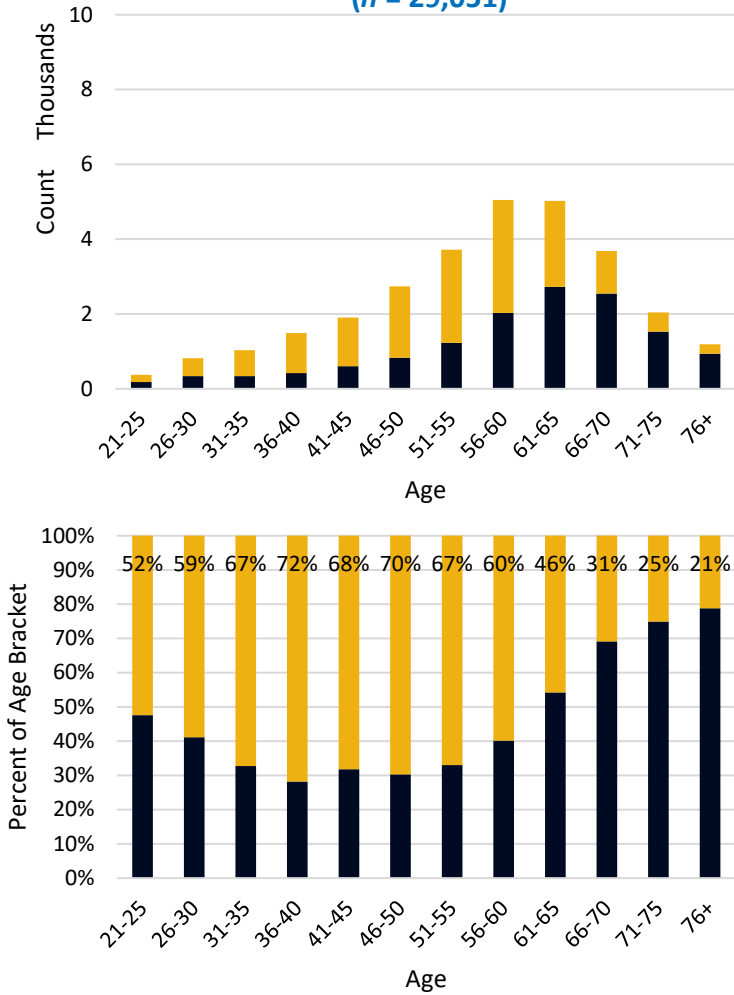
Truck Drivers

(n = 119,477)



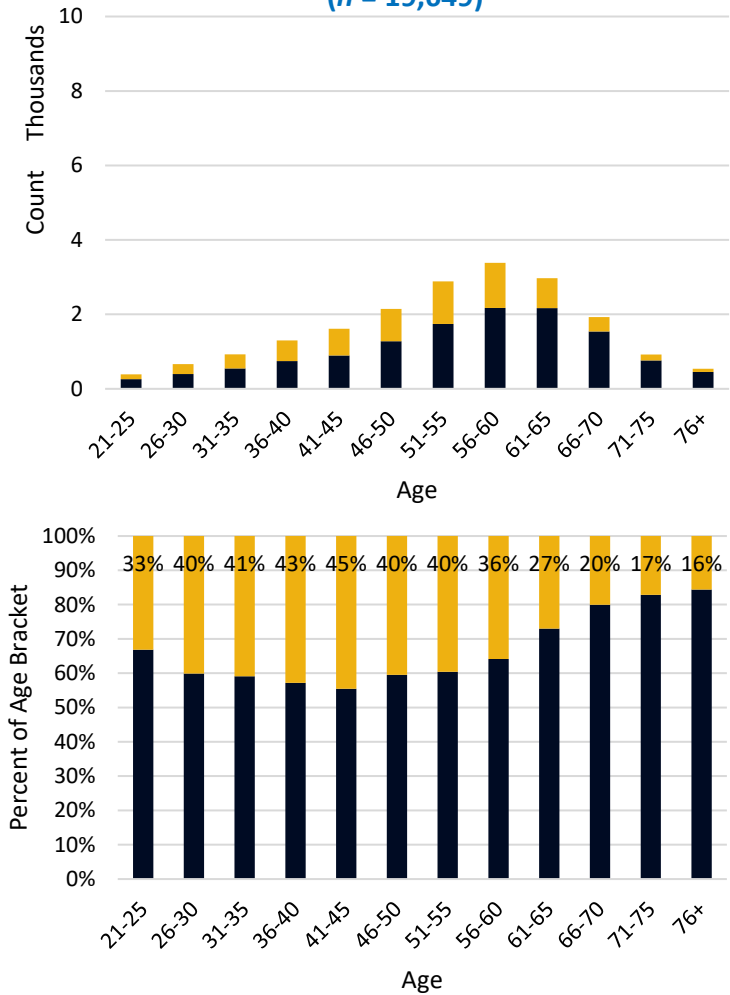
School Bus Drivers

(n = 29,051)



Other Bus Drivers

(n = 19,649)

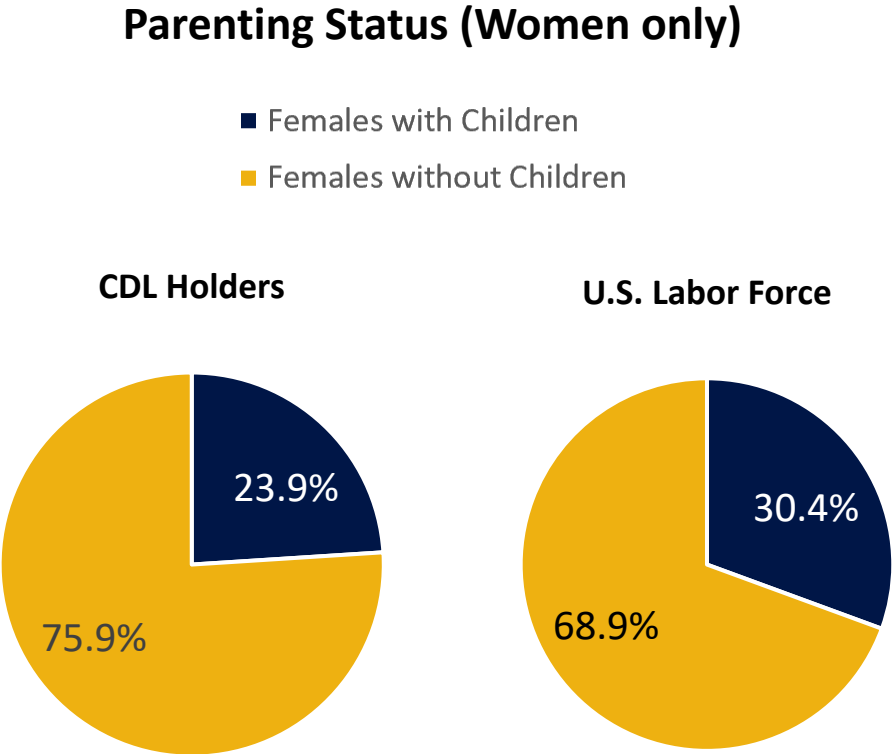
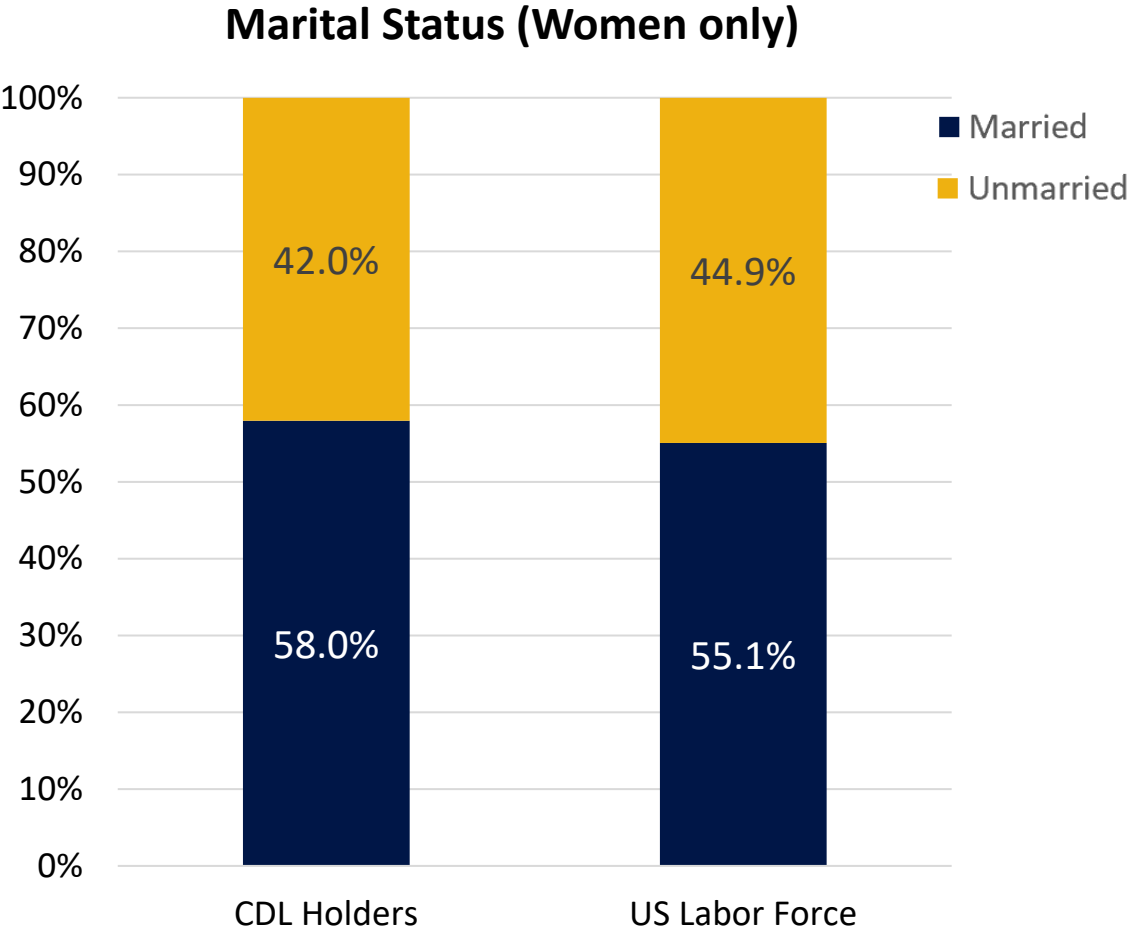


Female representation varies by CDL occupation; women actually make up the majority of school bus drivers under age 60.

Sex – Presumed CDL Holders vs. U.S. Labor Force

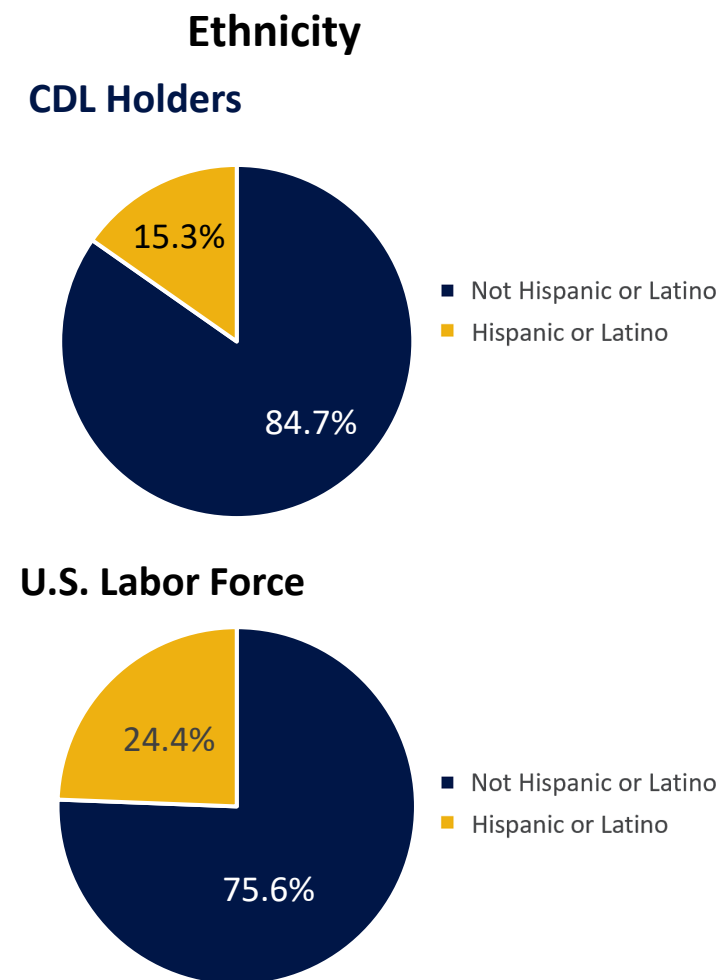
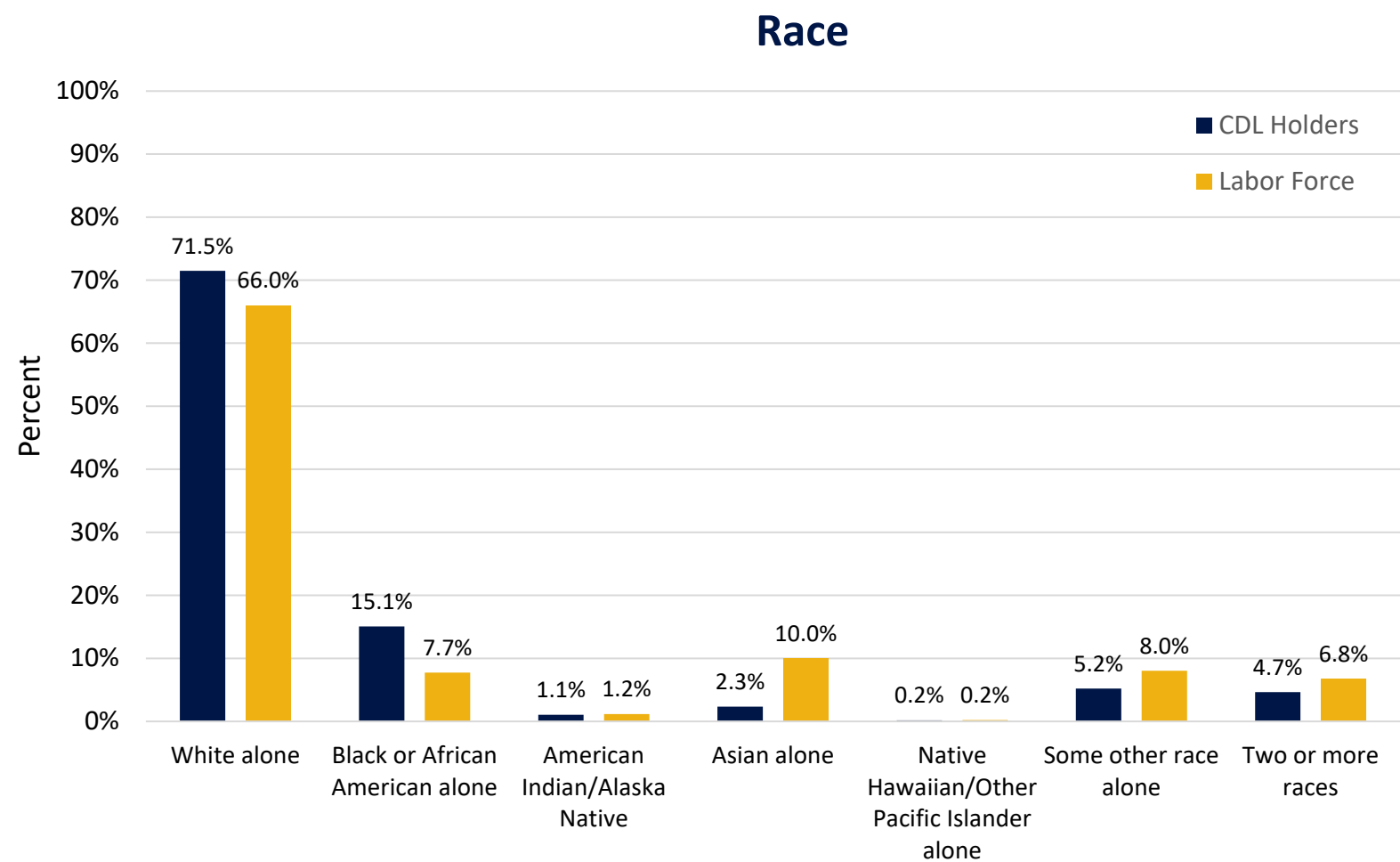
(ACS)

Marital & Parenting Status of Female Drivers & Workers



15 *Marital status is comparable between women in the CDL group & in the labor force, but a larger proportion of women in the labor force have children than those in the CDL group.*

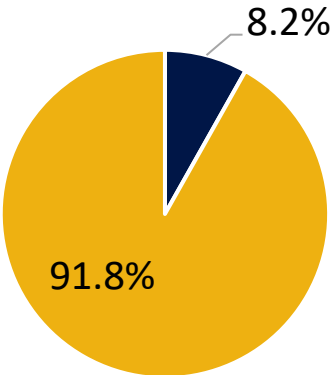
Race & Ethnicity – Presumed CDL Holders vs. U.S. Labor Force (ACS)



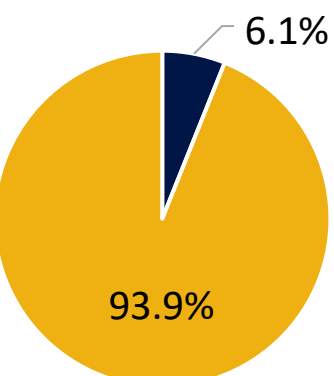
Asian, Multiracial, & Hispanic/Latino workers are underrepresented in the CDL holder group; Black / African American drivers do not appear to be underrepresented.

Disability – Presumed CDL Holders vs. U.S. Labor Force (ACS)

CDL Holders

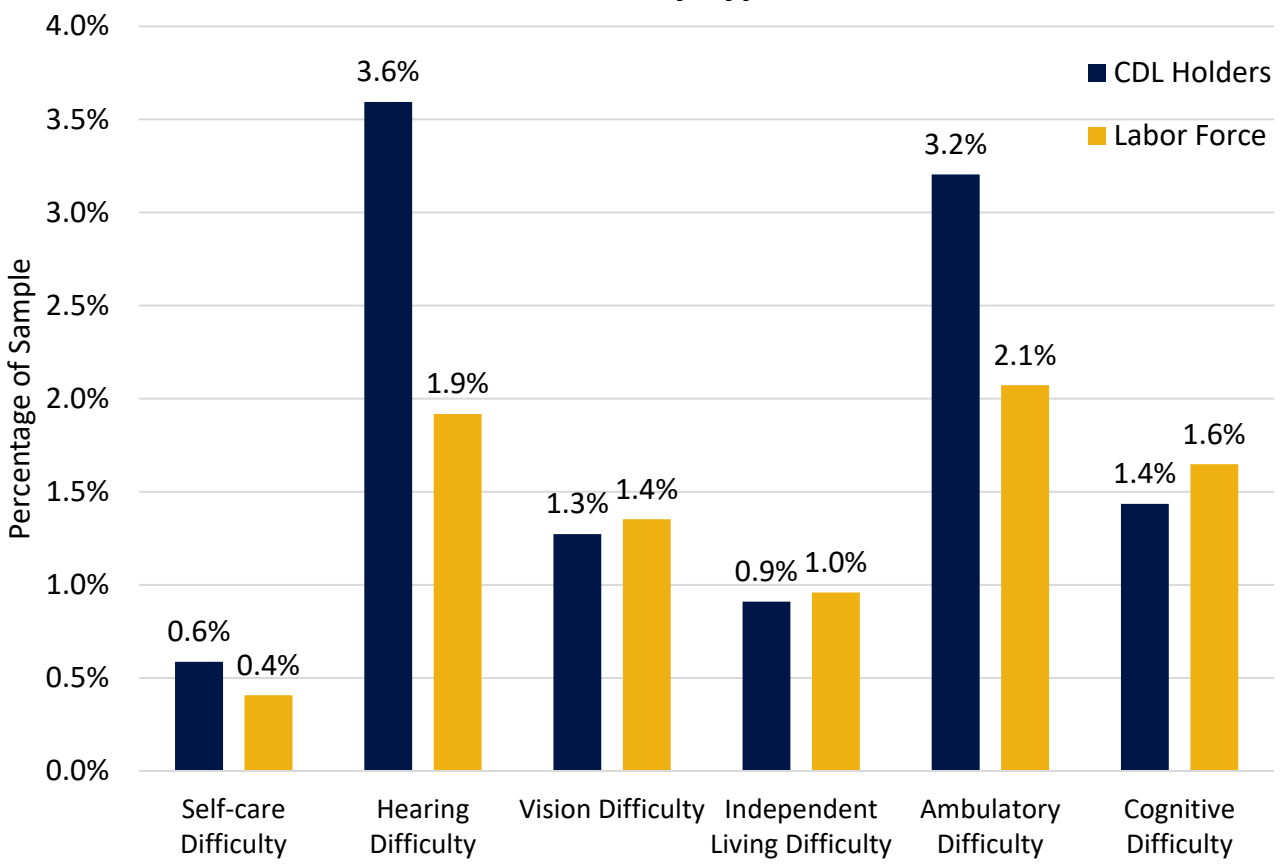


U.S. Labor Force



■ Has potential disability
■ Does not have a disability

Disability Type

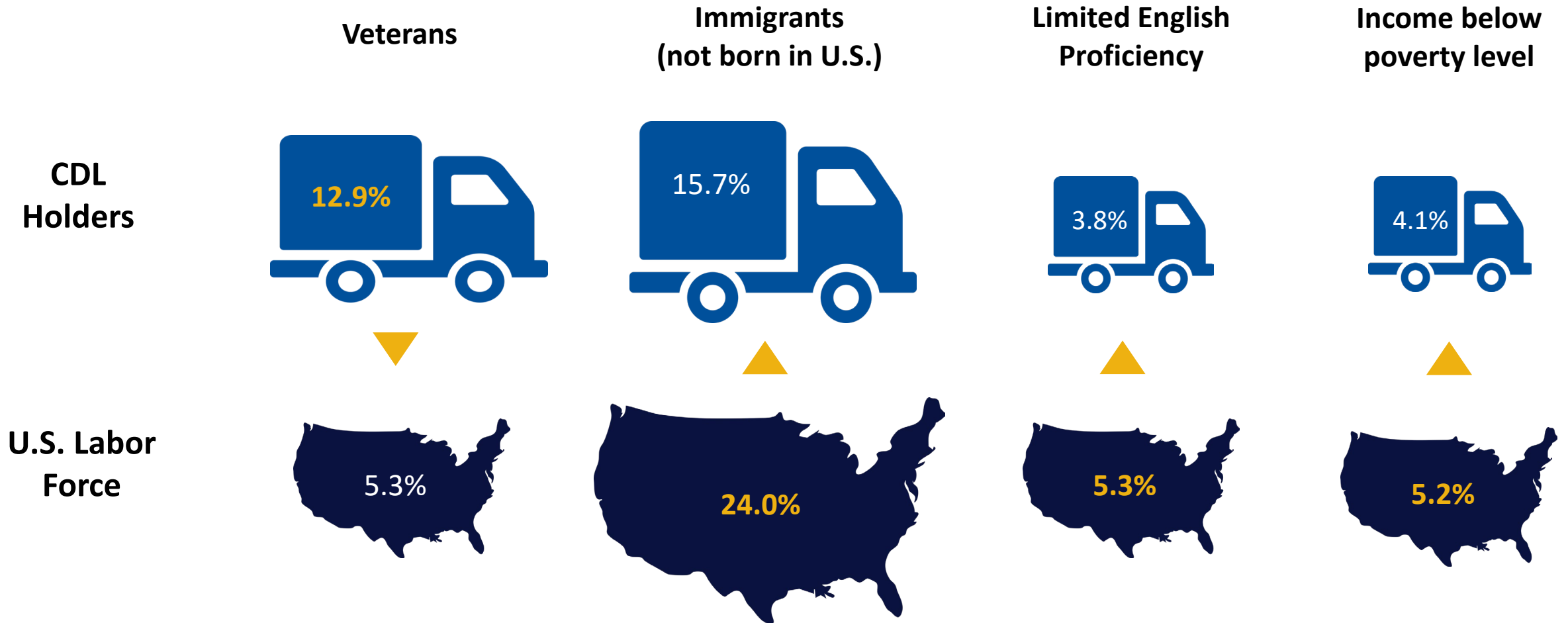


The CDL holder group reported higher rates of potential disabilities, particularly hearing & ambulatory difficulties, than the U.S. labor force overall.

Other Variables – Presumed CDL Holders vs. U.S. Labor Force

(ACS)

Veterans, Immigrants, Limited English Proficiency, & Poverty Status



Driver-Level Analysis: Potentially Underrepresented Groups

Age: Younger drivers

Sex: Female drivers

Race: Asian & multiracial drivers

Ethnicity: Hispanic/Latino drivers

Immigration: Non-U.S. born drivers

Quantitative Data: Gap Analysis



Demographic Data Availability – Major Data Sources Used

Data Source	Description	Limitations
<u>FMCSA Data:</u> CDLIS Out-of-State Transactions Dataset	<ul style="list-style-type: none">• Sample of CDL holders with out-of-state convictions or withdrawals	<ul style="list-style-type: none">• Limited demographic data• Possible biases in sampling based on convictions
<u>Federal Data – Census Bureau:</u> American Communities Survey Public Use Microdata Sample (ACS PUMS)	<ul style="list-style-type: none">• 5-year (2017-2021) microdata on ACS respondents• Sample of likely CDL holders identified by occupation codes (truck/bus drivers)	<ul style="list-style-type: none">• Occupation codes do not perfectly align with CDL holder population
<u>Other Sources:</u> State Disadvantaged Business Enterprise (DBE) Databases	<ul style="list-style-type: none">• Lists of registered DBEs (minority-owned, women-owned, etc.)	<ul style="list-style-type: none">• Limited demographic data, which varies by state• Only includes DBEs registered with the State; these carriers may not accurately represent <i>all</i> women-owned and minority-owned carriers

Wrap-Up





- Questions?
- Discussion
- Next steps



Contacts

Office of Policy

Kimberly Lambert

Chief, Strategic Planning and
Program Evaluation Division

Kimberly.lambert@dot.gov

Wendy Liberante

Director, Office of Strategic Planning
and Regulations

Wendy.liberante@dot.gov



Appendix



Driver-Level Data: CDLIS Limitations

Available Data

- The CDLIS Out-of-State Transactions dataset includes a sample of known, active CDL holders.
- Though demographic data in CDLIS is limited, this dataset facilitates comparison of CDL holders to the national workforce on the basis of sex and age.

Gaps & Limitations

- Due to the way the data was obtained, the CDL holders in this sample are primarily interstate, long-haul truck drivers. The dataset does not capture the school bus and transit/sightseeing bus drivers that were examined in the ACS PUMS dataset.
- Due to the sampling method, the demographics of this sample may differ from the overall CDL or overall trucking population, since these driver records were obtained based on out-of-state convictions.



Driver-Level Data: Census ACS PUMS Limitations

Available Data

- ACS 5-year PUMS data contains the most granular person-level demographic data of any Census dataset.
- ACS occupation and industry codes can be used to identify presumed CDL holders for comparison to the U.S. labor force.
- The ACS PUMS includes many variables that can be used to address topics of interest, including *age, sex, race, ethnicity, disability, marital status, parenting status, veterans, immigrants, limited English proficiency, and income below poverty level.*

Gaps & Limitations

- Unlike CDLIS data, ACS respondents in the “CDL holder” analysis group are *not* confirmed CDL holders, so all findings are an approximation of this group.
- Certain variables analyzed were subject to limitations, e.g.:
 - Race and ethnicity categories follow OMB’s current standards, which have not yet been updated and lack of a “Middle Eastern and North African” category.
 - Poverty status is typically calculated based on household data, so poverty estimations based on individual income data should be taken with caution.
- Some variables of interest were not available, including military spouses, caregivers, religion, sexual orientation, pregnancy and related conditions, rural residents, former incarceration, and first-generation professionals and students.