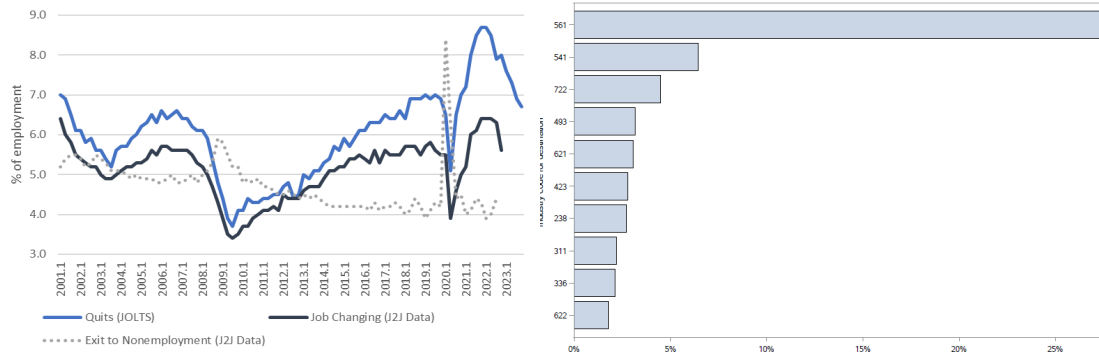# Job-to-Job Flows (J2J) Training

## A Primer on Using New NAICS3 Tabulations



Hubert Janicki

Longitudinal Employer-Household Dynamics

U.S. Census Bureau

May 2024

# Training Outline

- J2J Data Overview

- Important Concepts and Data Structure

- Overview of J2J NAICS3 release

- Application of J2J data to measuring effect of COVID on labor market

- Please ask questions and provide comments anytime!

# J2J Data Product

- Job-to-Job Flows (J2J) are national statistics on **job mobility** in the U.S.

- With these data, users can learn more about workers entering and exiting nonemployment as well as those moving from one job to another.
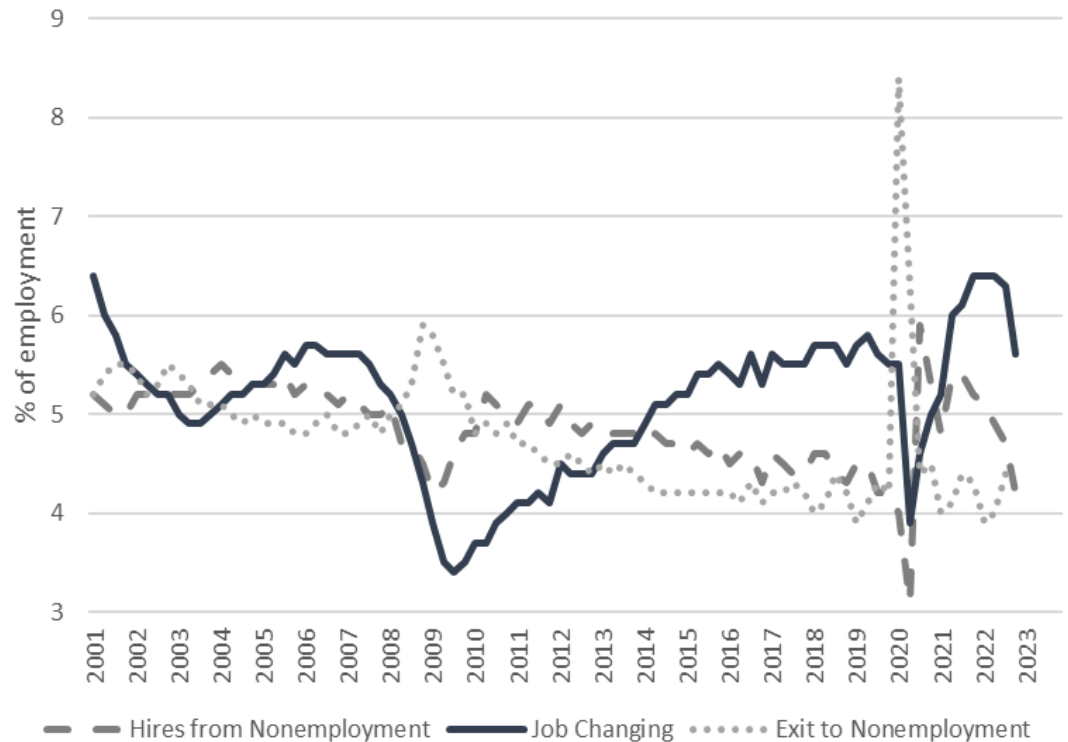


*Note*: J2J National Data. All data are seasonally adjusted.

# J2J Data Product

- Better understand worker turnover
    - Are separations mostly coming from workers changing jobs or from workers transitioning into nonemployment?
    - When workers change jobs, are they switching to new industries or moving to new locations?
- See the impact of job ladders
    - Are job moves leading to workers moving 'up the job ladder' to better paying industries and employers?
- Look at economic migration across labor markets
    - What labor markets are we losing workers to?  Which workers?  What industries in my state/metro are importing workers from other states/metros?

# Important Concepts

- Workers can hold more than one job

- The highest paying job is identified as the main job

- If a worker does not have a main job, that worker is defined as non-employed

- To identify worker movements, we compare employment status and main job between the beginning and end of a quarter

- NAICS assignment is at business characteristic at the establishment-level

# Important Concepts

| | Employment | |
| --- | --- | --- |
| | *Beginning of the quarter* | *End of the quarter* |
| **Job Stayer** (*JobStayS*) | Main Job at Firm A | Main Job at Firm A |
| **Job Changer** (*J2J*) | Main Job at Firm A | Main Job at Firm B |
| **Flow from Nonemployment** (*NEPersist*) | None | Main Job at Firm B |
| **Flow to Nonemployment** (*ENPersist*) | Main Job at Firm A | None |

# Diagramming J2J Indicators
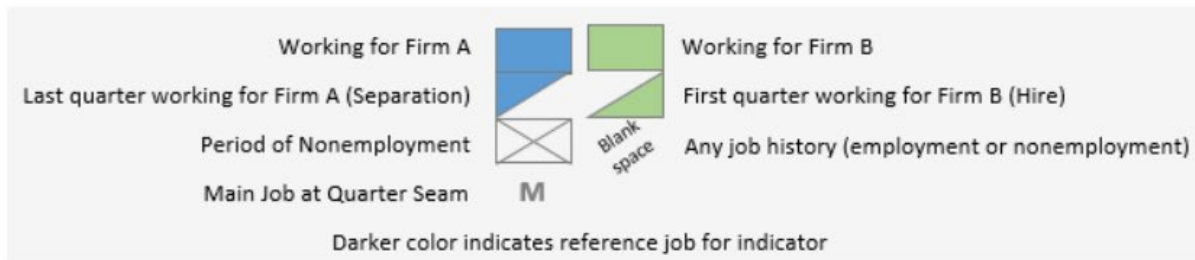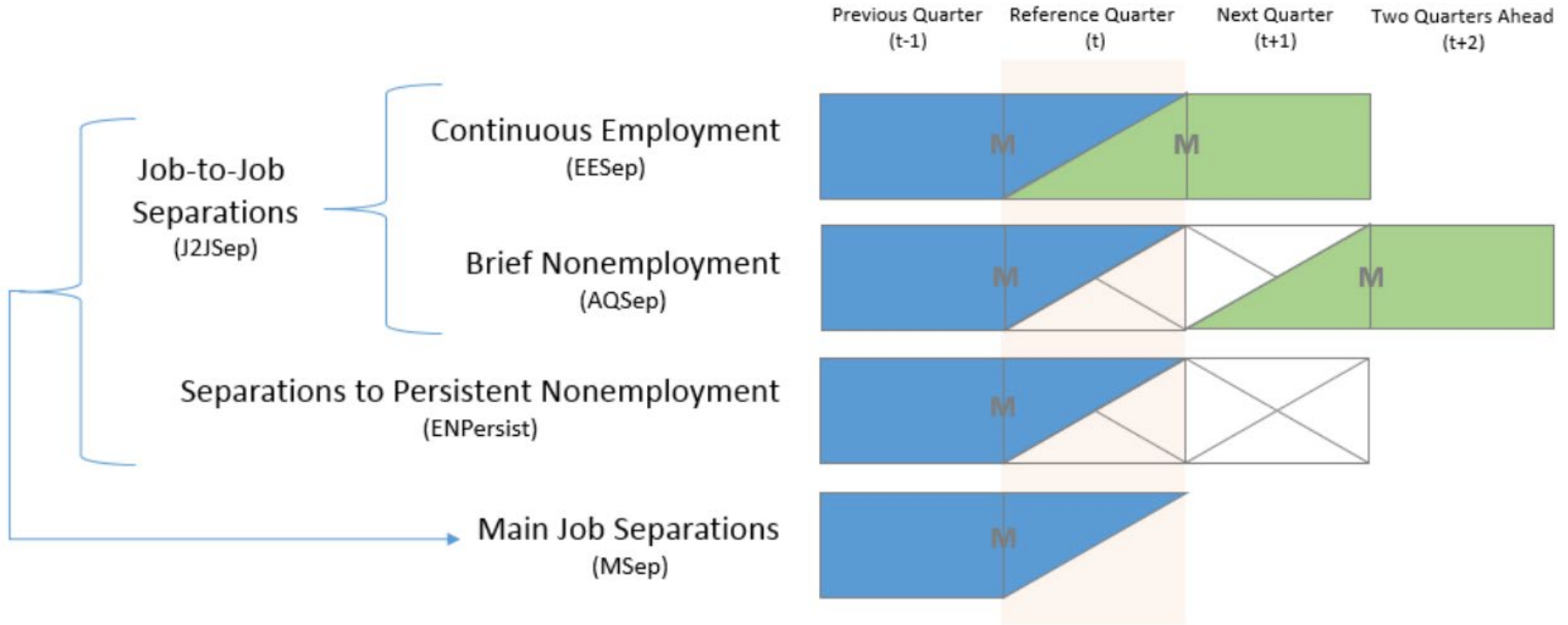
# Data Structure

## Core measures (J2J)

- Hires and separations resulting from job change
- Hires from and separations to nonemployment

## Rates measures (J2JR)

- Rates calculated by dividing J2J measures by the number of main jobs

## Origin-destination measures (J2JOD)

- Subset of hires where the worker separated from their previous main job in the same or previous quarter

# New J2J NAICS3 Release

- New and experimental **research release** of job flow counts across industries from the North American Industry Classification System (NAICS) down to a more detailed subsector level (3-digit NAICS)

- Analyzing industry **subsectors** rather than just industry sectors captures job shifts within and across industries, painting a richer picture of how frequently workers changed jobs

- Today, I will use the new J2J NAICS3 release to tell you something about how workers changed jobs during following the COVID pandemic

- But first, I will document some basic facts about the labor market during the pandemic

# NAICS Sector vs subsector

- Retail Trade (NAICS 44-45)
  - Motor Vehicle and Parts Dealers (NAICS 441)
  - Furniture and Home Furnishings Stores (NAICS 442)
  - Electronics and Appliance Stores (NAICS 443)
  - Building Material and Garden Equipment and Supplies Dealers (NAICS 444)
  - Food and Beverage Stores (NAICS 445)
  - Health and Personal Care Stores (NAICS 446)
  - Gasoline Stations (NAICS 447)
  - Clothing and Clothing Accessories Stores (NAICS 448)
  - Sporting Goods, Hobby, Book, and Music Stores (NAICS 451)
  - General Merchandise Stores (NAICS 452)
  - Miscellaneous Store Retailers (NAICS 453)
  - Nonstore Retailers (NAICS 454)

- Accommodation and Food Services (NAICS 72)
  - Accommodation (NAICS 721)
  - Food Services and Drinking Places (NAICS 722)

# The Great Resignation or Reshuffle

- Use BLS JOLTS quits series to document rise in job quits beginning in late 2020

- Using J2J data, we can say Job-to-job moves increased while separations to nonemployment quickly returned to pre-pandemic rates

% of employment

Legend: Quits (JOLTS), Job Changing (J2J), Exit to Nonemployment (J2J)

*Note*: J2J National Data. All data are seasonally adjusted.

United States® **Census** Bureau

U.S. Department of Commerce
U.S. CENSUS BUREAU
*census.gov*
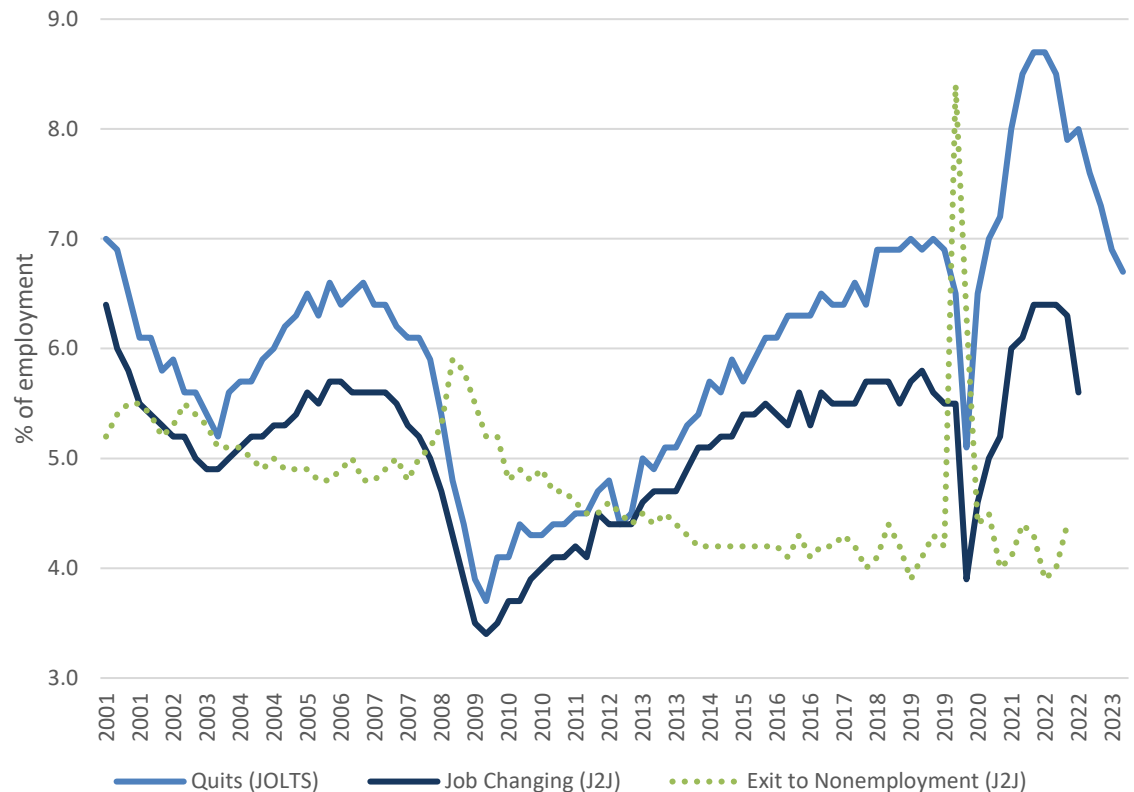
# The Great Reshuffle by Age

- Job-changing among young workers peaked early in the pandemic recovery

- Rates for prime-age and older workers continued to climb until late in 2022



Job Changing Rate (2019 average = 100)

····· Age 19-21  ····· Age 22-24  —— Age 25-34
—— Age 35-44  —— Age 45-54  —— Age 55-64
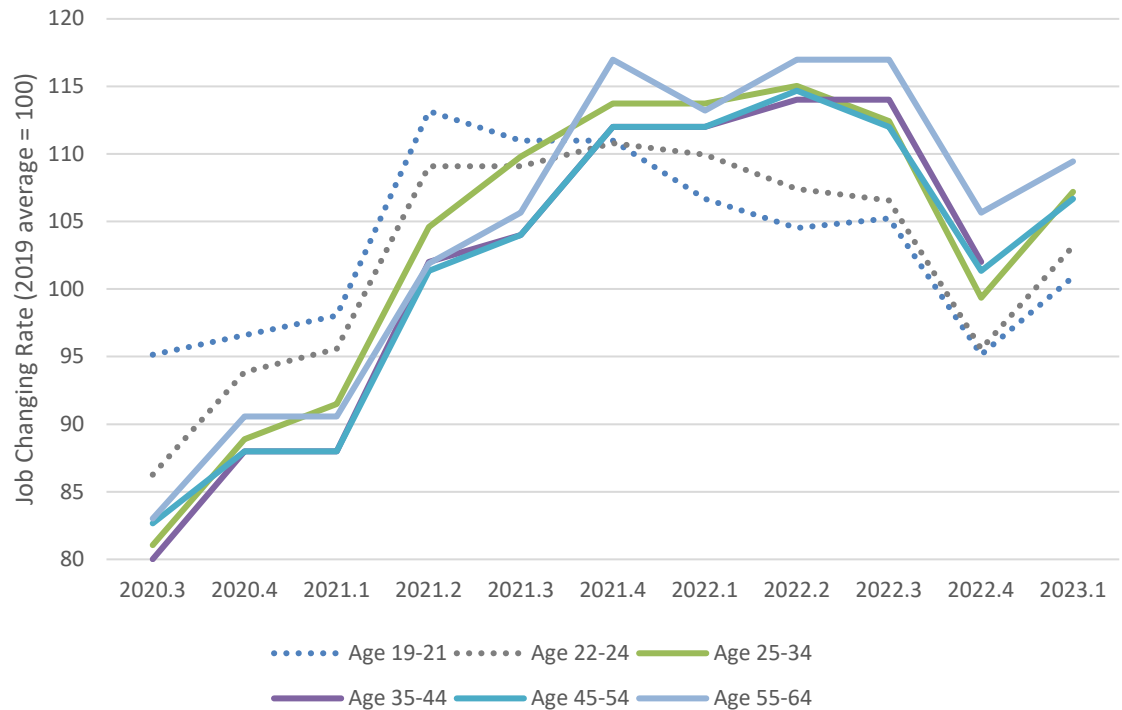
*Note*: J2J National Data. All data are seasonally adjusted.

# Using J2J NAICS3 Data

- So far, I've only used one sided J2JR measures
- New J2J Job Flows detailed industry tables tell us where workers who left one industry subsector went
- Use Job-to-job (EE) counts from OD tables only
- Aggregate to a calendar year
- Analysis is done for at all-available-states level
- See "From Great Resignation to Great Reshuffling" America Counts Story
- Use ranked-NAICS3-J2JOD.pdf found here https://lehd.ces.census.gov/data/experimental/j2j/j2j_subsector/R2024Q1/ranked-NAICS3-J2JOD.pdf

# Job transitions by NAICS subsector

- Consider subsectors that have large job-to-job transition rates
- Workers that undergo a job transition often change subsectors

| Industries with largest exits to another job | % remaining in industry in 2019 | % remaining in industry in 2021 |
|---|---|---|
| Admin & Support Services (561) | 28.2 | 28.1 |
| Food Service and Drinking Places (722) | 44.9 | 43.6 |
| Professional and Technical Services (541) | 39.3 | 40.7 |
| Ambulatory Health Care (621) | 41.4 | 39.8 |
| Educational Services (611) | 41.0 | 42.2 |
| Speciality Trade Contractors (238) | 45.5 | 42.4 |
| Nursing and Residential Care Facilities (623) | 36.4 | 31.4 |
| General Merchandise Stores (455) | 11.7 | 11.4 |
| Hospitals (622) | 31.4 | 28.2 |
| Food and Beverage Stores (445) | 13.7 | 11.7 |

*Note*: J2J NAICS3 Data.

# NAICS Sector vs subsector

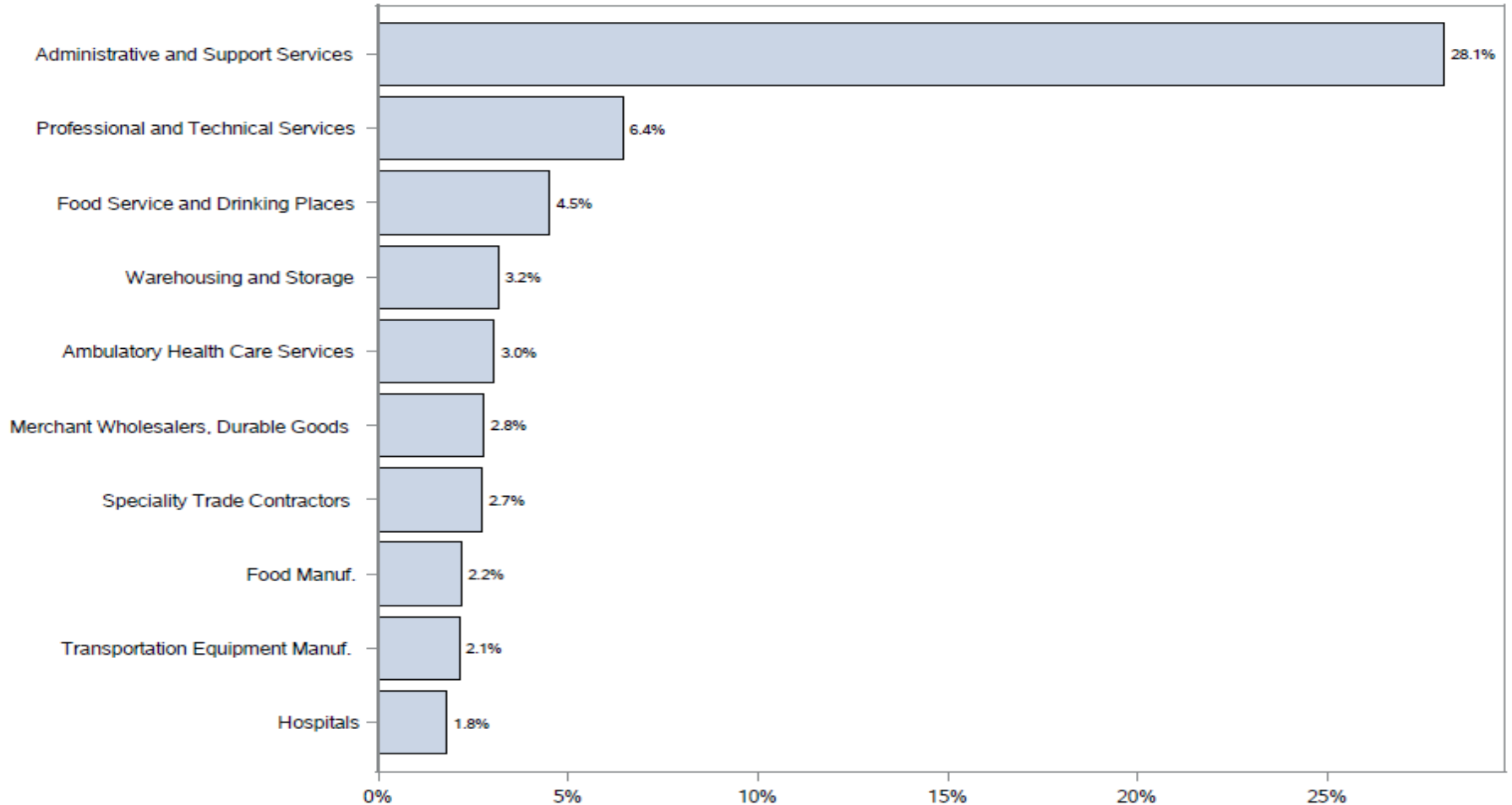- Administrative and Support and Waste Management and Remediation Services (NAICS 56)
  - Administrative and Support Services (NAICS 561)
  - Waste Management and Remediation Services (NAICS 562)

- Health Care and Social Assistance (NAICS 62)
  - Ambulatory Health Care Services (NAICS 621)
  - Hospitals (NAICS 622)
  - Nursing and Residential Care Facilities (NAICS 623)
  - Social Assistance (NAICS 624)

# **Example:** Administrative and Support Services subsector

- https://www.bls.gov/iag/tgs/iag561.htm

- "Industries in the Administrative and Support Services subsector group establishments engaged in activities that support the day-to-day operations of other organizations. The processes employed in this sector (e.g., general management, personnel administration, clerical activities, cleaning activities) are often integral parts of the activities of establishments found in all sectors of the economy…"

# Top Destinations for Workers Leaving Jobs in Administrative and Support in 2021



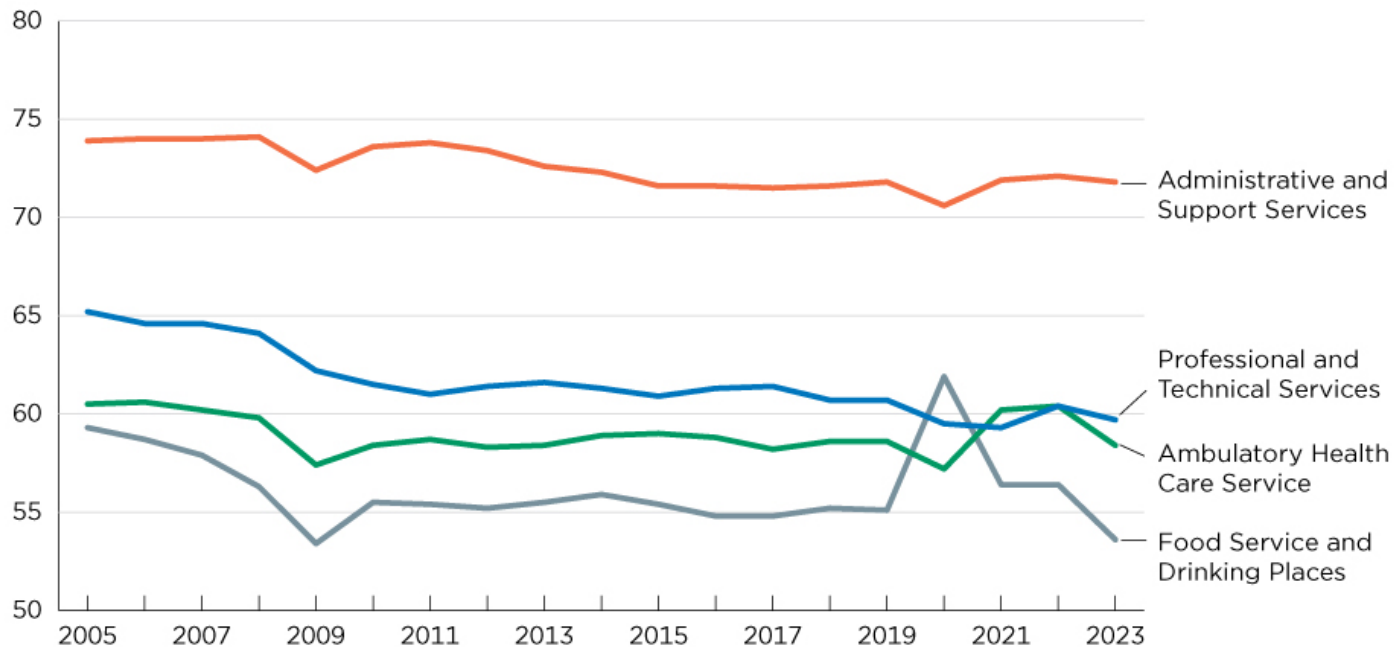| Industry | Percent |
| --- | --- |
| Administrative and Support Services | 28.1% |
| Professional and Technical Services | 6.4% |
| Food Service and Drinking Places | 4.5% |
| Warehousing and Storage | 3.2% |
| Ambulatory Health Care Services | 3.0% |
| Merchant Wholesalers, Durable Goods | 2.8% |
| Speciality Trade Contractors | 2.7% |
| Food Manuf. | 2.2% |
| Transportation Equipment Manuf. | 2.1% |
| Hospitals | 1.8% |

Source: U.S. Census Bureau. Job-to-Job Flows data.

# Job transitions by NAICS subsector



Figure 1.
**Job-to-Job Outflows in Selected U.S. Industries: 2005–2023**
(In percent)

# NAICS3 Transitions during COVID

Table 1.

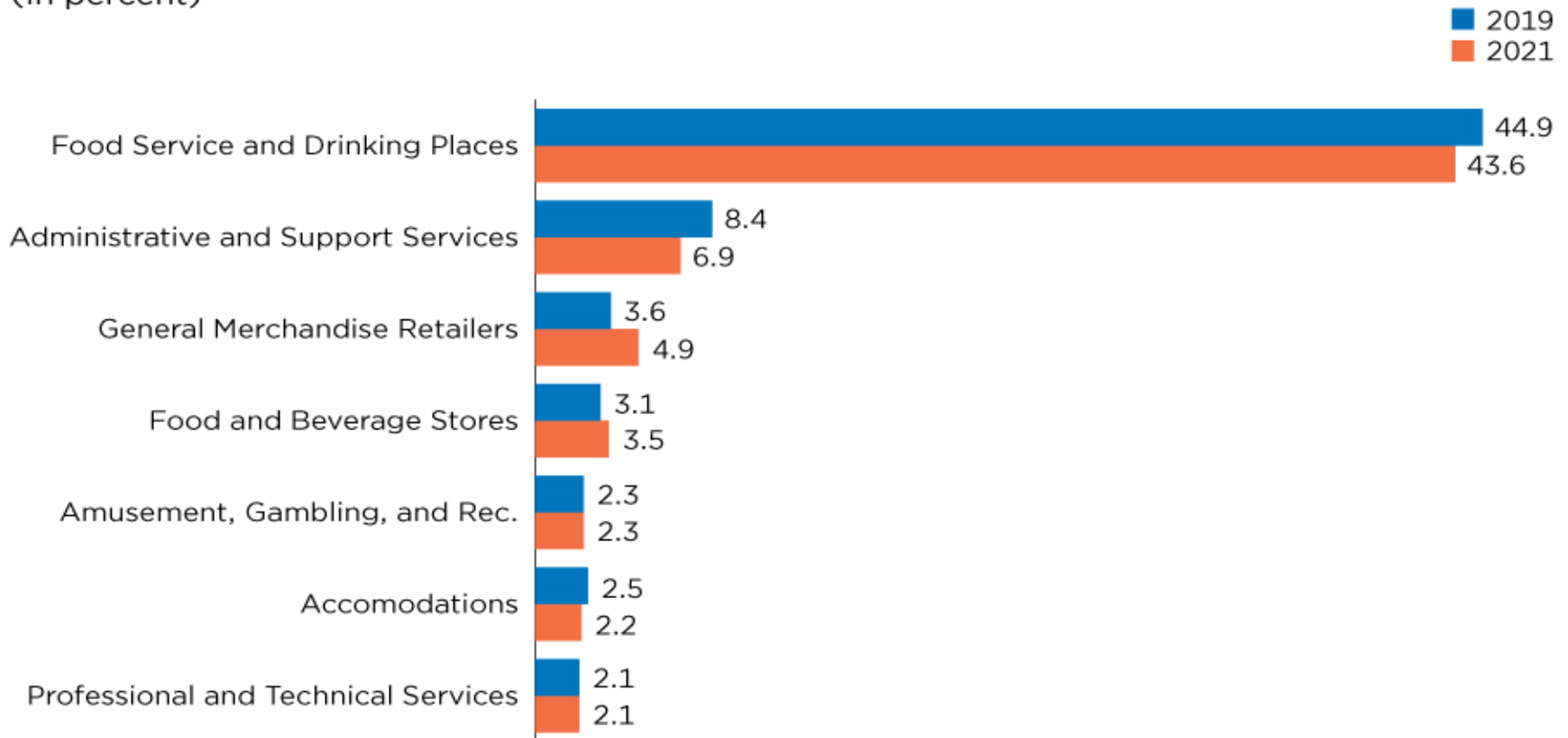## 10 U.S. Industries With Largest Job–to–Job Flows and Associated Destination Industry: 2019 and 2021

| Industries with largest exits to other jobs | Most common destination | Percent moving to this industry | |
|---|---|---|---|
| | | 2019 | 2021 |
| Admin & Support Services.................. | Professional and Technical Services........ | 6.0 | 6.4 |
| Food Service and Drinking Places.......... | Admin & Support Services................. | 8.4 | 6.9 |
| Professional and Technical Services........ | Admin & Support Services................. | 10.4 | 9.4 |
| Ambulatory Health Care.................. | Hospitals.............................. | 10.5 | 10.3 |
| Educational Services..................... | Professional and Technical Services........ | 6.0 | 6.8 |
| Specialty Trade Contractors.............. | Admin & Support Services................. | 8.9 | 8.6 |
| Nursing and Residential Care Facilities..... | Admin & Support Services................. | 8.8 | 11.1 |
| General Merchandise Stores.............. | Food Service and Drinking Places.......... | 12.4 | 13.5 |
| Hospitals............................. | Ambulatory Health Care.................. | 22.1 | 21.7 |
| Food and Beverage Stores............... | Food Service and Drinking Places.......... | 16.8 | 17.8 |

Note: All statistics are calculated as shares of total job-to-job flows in each 3-digit NAICS industry.
Source: U.S. Census Bureau, Job-to-Job Flows data and Survey of Income and Program Participation, 2021 public-use data.

Figure 2.
**Top Destination Industries of Workers Leaving Jobs in Food and Drinking Places: 2019 and 2021**
(In percent)

Legend: 2019, 2021

| Industry | 2019 | 2021 |
|---|---|---|
| Food Service and Drinking Places | 44.9 | 43.6 |
| Administrative and Support Services | 8.4 | 6.9 |
| General Merchandise Retailers | 3.6 | 4.9 |
| Food and Beverage Stores | 3.1 | 3.5 |
| Amusement, Gambling, and Rec. | 2.3 | 2.3 |
| Accomodations | 2.5 | 2.2 |
| Professional and Technical Services | 2.1 | 2.1 |

Source: U.S. Census Bureau, Job-to-Job Flows data. All statistics are calculated as shares of total job-to-job flows into each 3-digit NAICS industry.

# Top Destinations for Workers Leaving Jobs in Nursing and Residential Care Facilities: 2019 and 2021
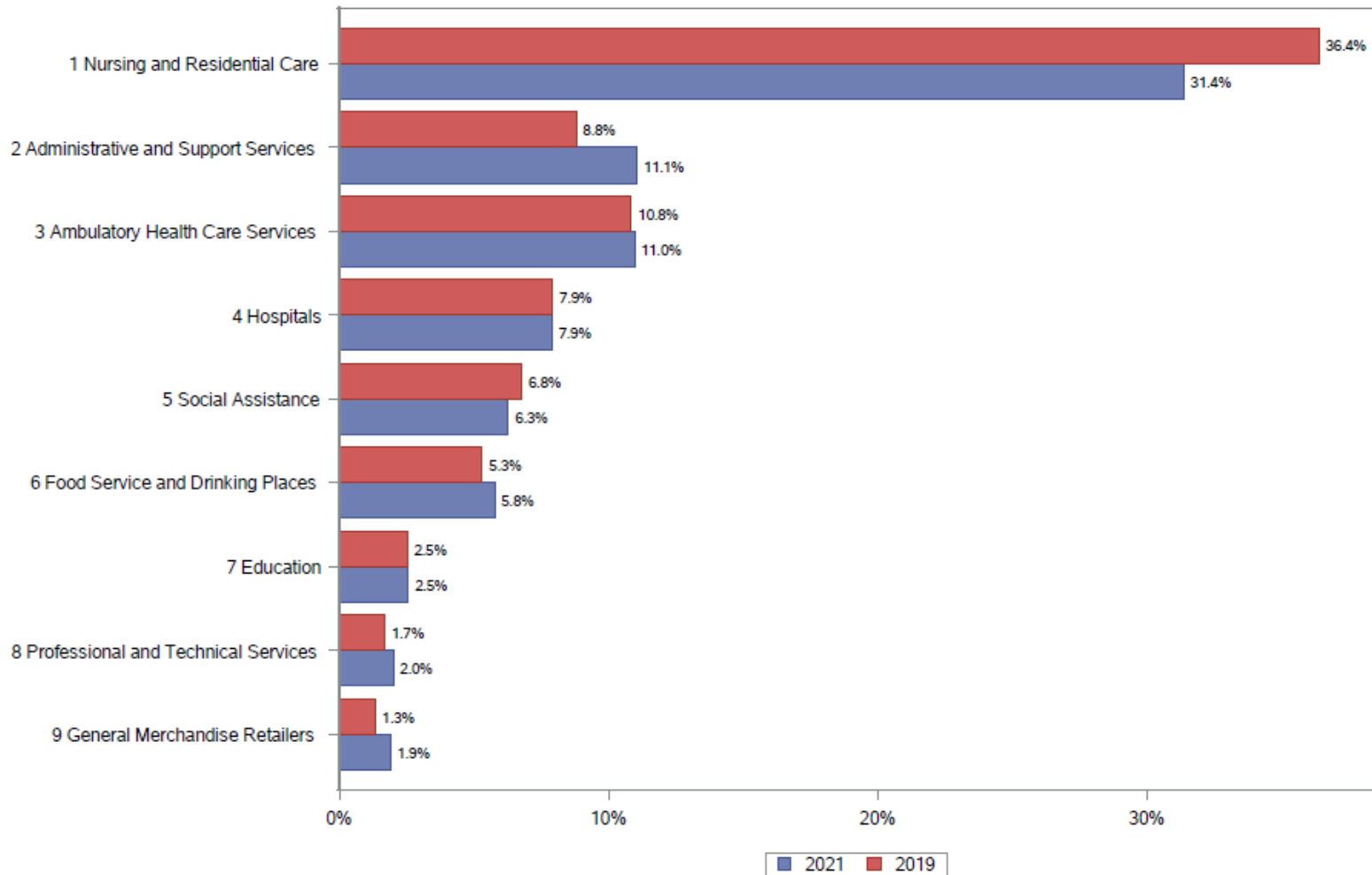


Source: U.S. Census Bureau. Job-to-Job Flows data.

# Key Findings

- Generally, Admin & Support Services NAICS subsector plays a large role accounting for job-to-job mobility in U.S
    - Subsector with largest number of job-to-job flows
    - Frequent top destination for workers leaving jobs in other subsectors

# Key Findings

- Food Service workers quickly returned to work—but were less likely to remain in Food Service sector jobs

- Health Care workers more likely to transition to jobs in other sectors

# Where to Get the Data

- Job-to-Job Flows NAICS 3-digit industry tabulations [research release](#)

- Summary PDF of top origin and destination subsectors is [available](#) (used to create today's slides)

- [American Counts story](#) provides an example of how to use data

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# Thank you!

- If you have any questions about J2J NAICS3, email ces.j2j.feedback@census.gov

- Past training sessions covered use of J2J Explorer and LED extraction tools. These are still available as a resource. For example: https://lehd.ces.census.gov/doc/workshop/2023/Trainings/J2J_Training_2023_workshop.pdf