



# The Future of Work (& Workers): Setting the Stage

Ingrid Fulmer

School of Labor and Employment Relations  
University of Illinois at Urbana Champaign

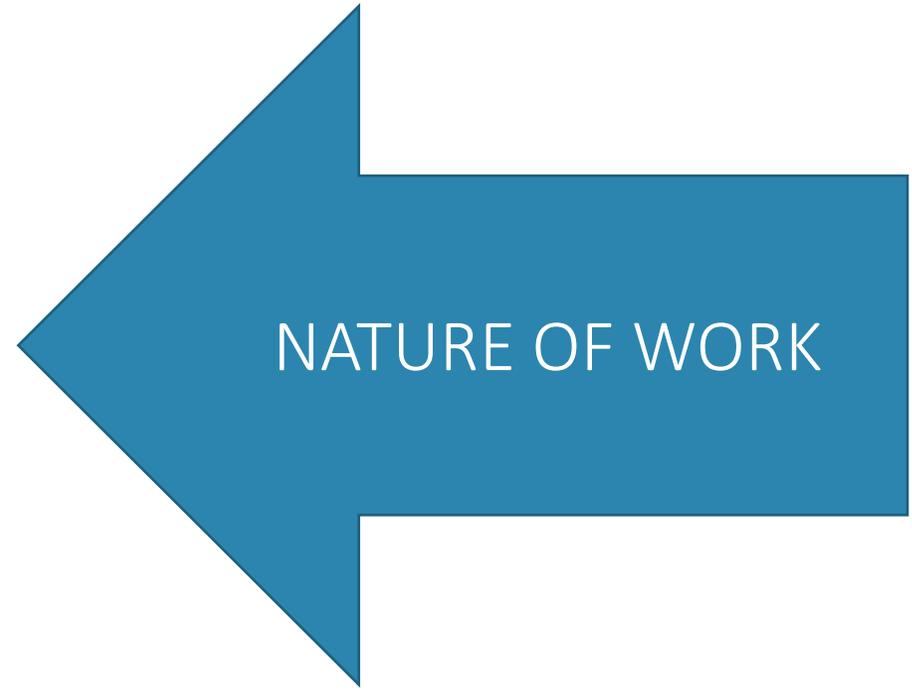
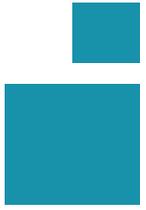
October 21, 2022



# Overview – Future of Work

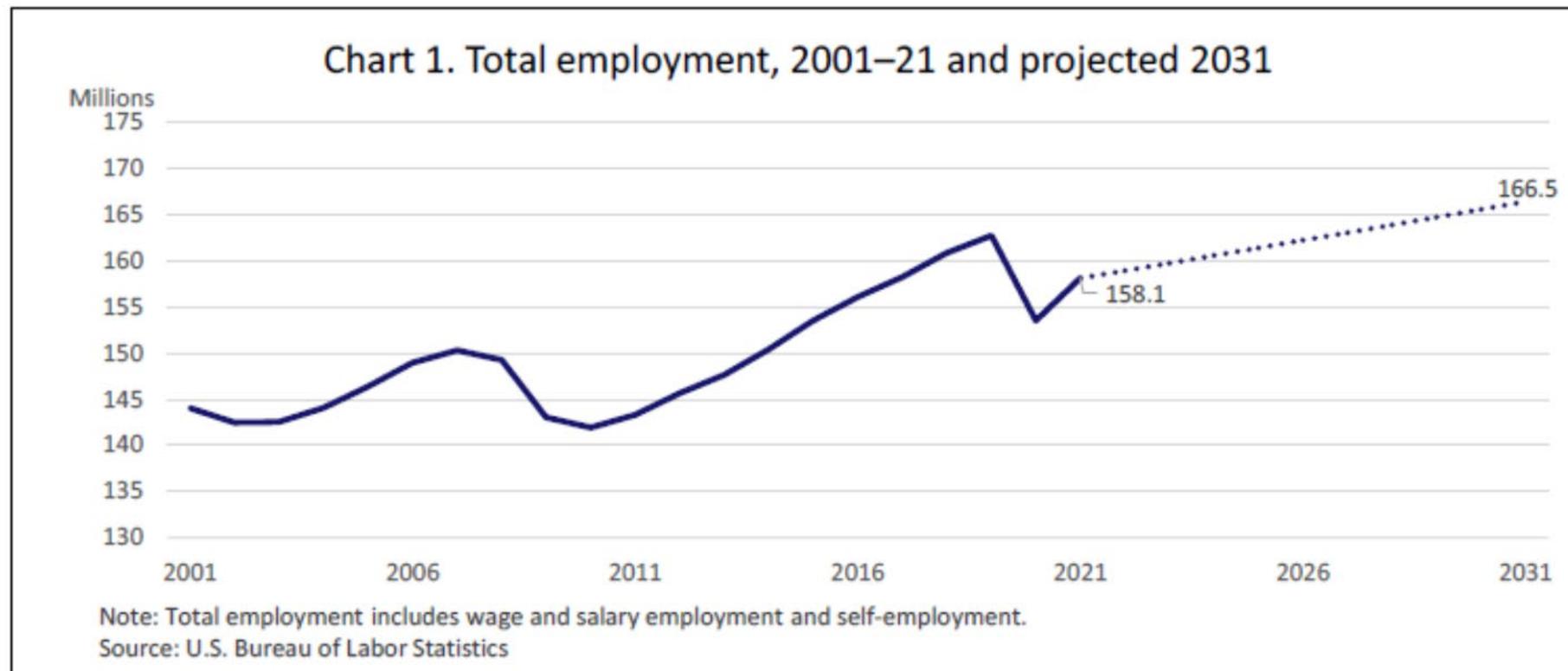
Setting the stage for the day

- How will “work” be different from today?
- How will “workers” be different from today?
- So many issues and topics . . .where to start?



# Trends affecting work in the future – 2021-2031

- Employment projected to grow ~0.5% annually, adding 8.3 m jobs by 2031
  - Slower than the 1% annual growth over past 10 years
  - **Health care and social assistance sectors will create the most jobs**



# Technology Effects – Multiple Dimensions

## Automation

- Substitution of non-human for human production
- Today this is computers and computer-controlled machines
- May reduce number of workers but increase skills needed for remaining workers whose work is automated

## Digital Technologies

- Translation of information into form understood by software + transmitted via internet
- Lower costs of search for labor, tracking individuals, verification of quality
- Facilitates gig work platforms (e.g., Uber)
- Facilitates performance monitoring

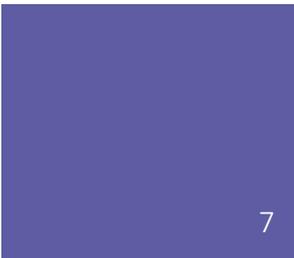
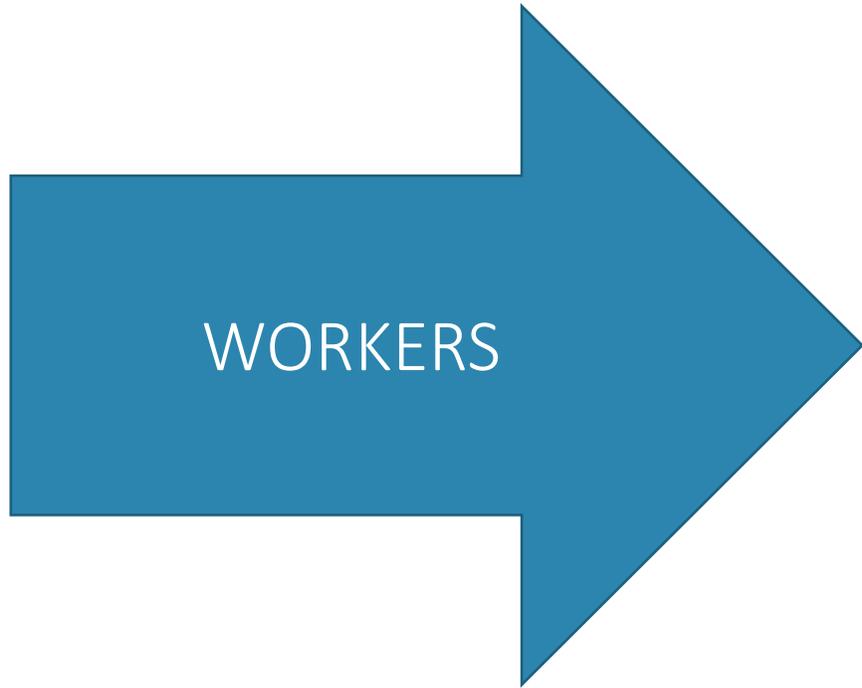
## Artificial Intelligence

- Automation of cognitive tasks that are part of the production chain
- Activity devoted to making machines intelligent
- AI impacts work itself as well as decision-making *about* workers (selection, scheduling, etc.)

# In Illinois (and elsewhere)

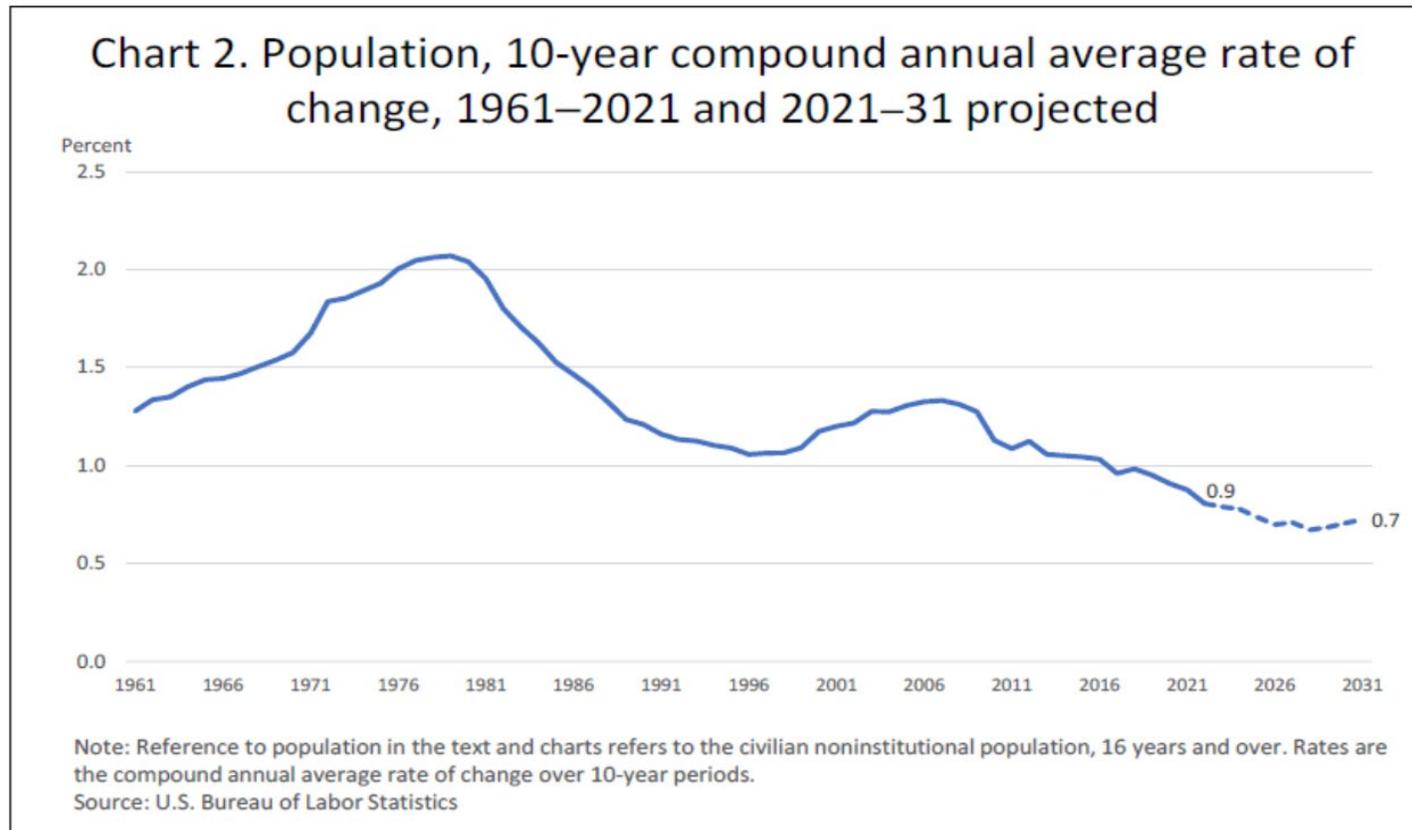
- Projections → increasing labor market gaps over next 10 years
  - Growth in lower wage jobs AND in higher-wage jobs, loss of middle-wage jobs
  - Uneven access for Black, Latinx, low-income and rural students and workers
- Some focus areas of Illinois Future of Work Task Force:
  - *Understanding positive and negative impacts of new technology* (AI, workplace monitoring & surveillance, and other data-driven technologies)
  - Ensuring new jobs are *quality jobs* to benefit workers AND align with business needs by improving engagement, retention and profits
  - Shift in nature of jobs, including *more care work and more clean energy jobs*





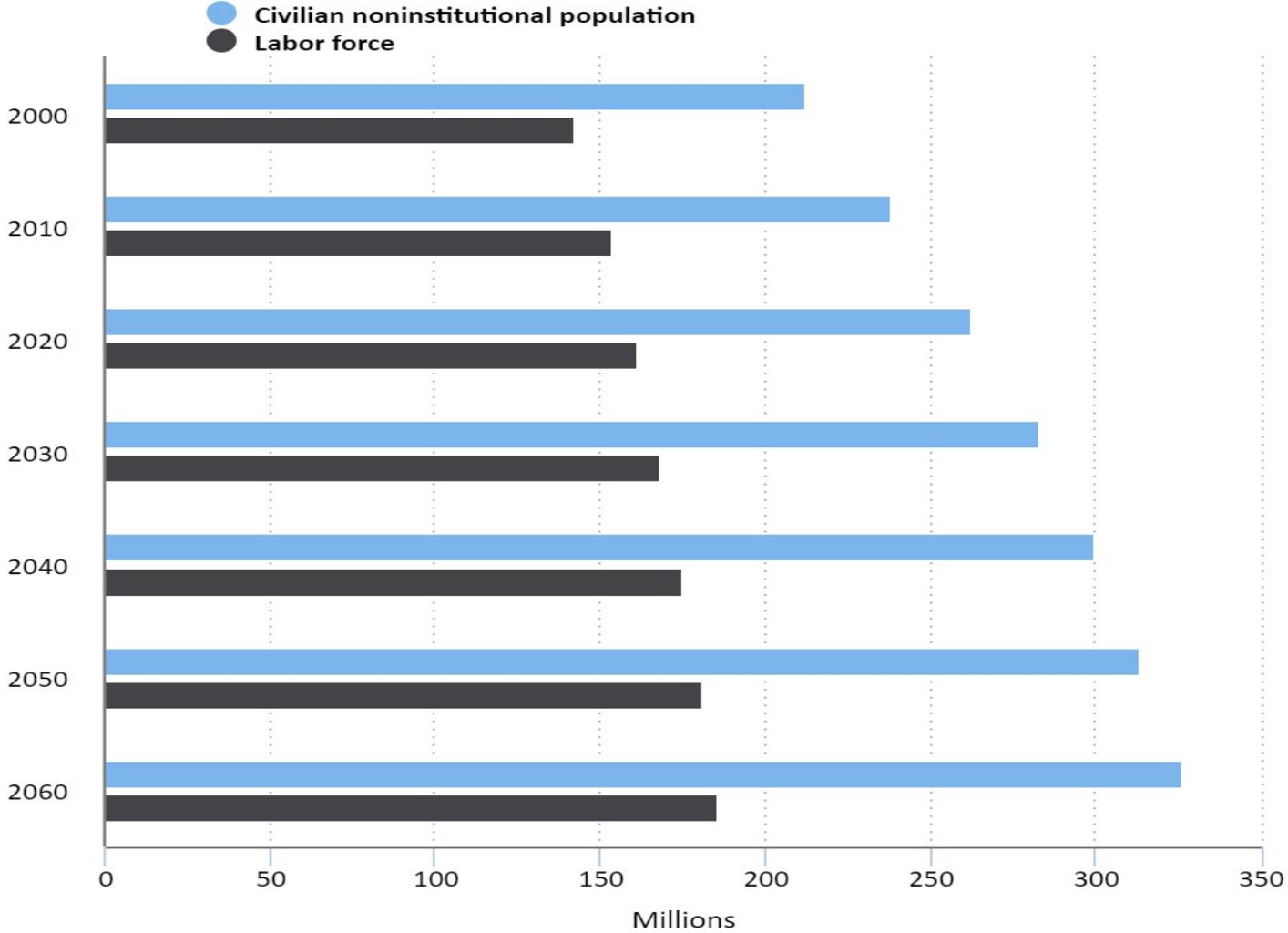
# Trends affecting workers in the future – 2021-2031

- Population projected to grow 0.7%, the slowest growth rate in BLS history (due to lower fertility rates and reduced net migration)



# Labor force growth will lag population growth

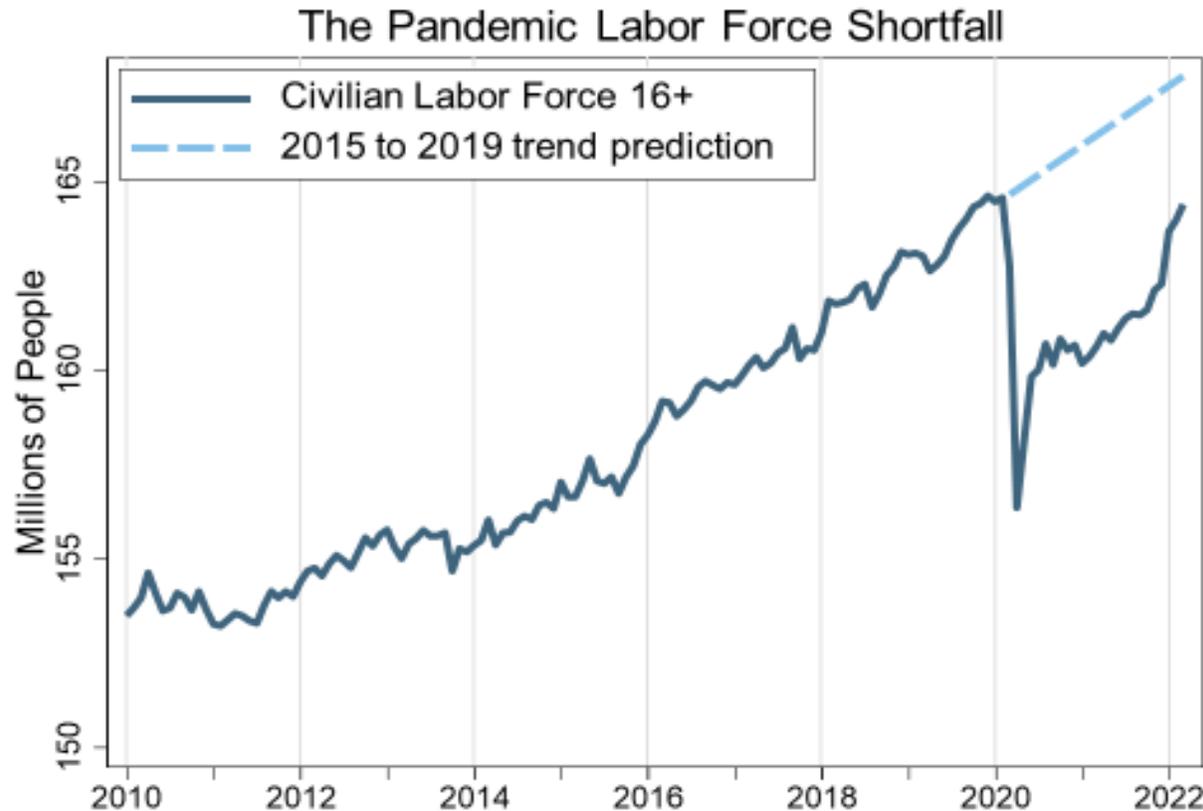
Civilian noninstitutional population and labor force is growing



Click legend items to change data display. Hover over chart to view data.  
Source: U.S. Bureau of Labor Statistics <https://www.bls.gov/spotlight/2016/a-look-at-the-future-of-the-us-labor-force-to-2060/home.htm>

# But, COVID effects may affect projections. . .

**As of early 2022, the US labor force is short about 3.5 million workers, relative to the pre-pandemic trend**



**Notes:** Data are the Civilian Labor Force Level (persons 16 and over) published monthly by the Bureau of Labor Statistics and extracted from FRED. The sample period for this series covers January 2010 to March 2021. We obtain the 2015 to 2019 trend prediction by estimating a linear trend from January 2015 to December 2019 and fitting the trend to March 2020 and later months.

Pre-pandemic CBO projections in 2019 imply a smaller labor force shortfall as of 2022. See CBO (2019).

14

# “Long Social Distancing”

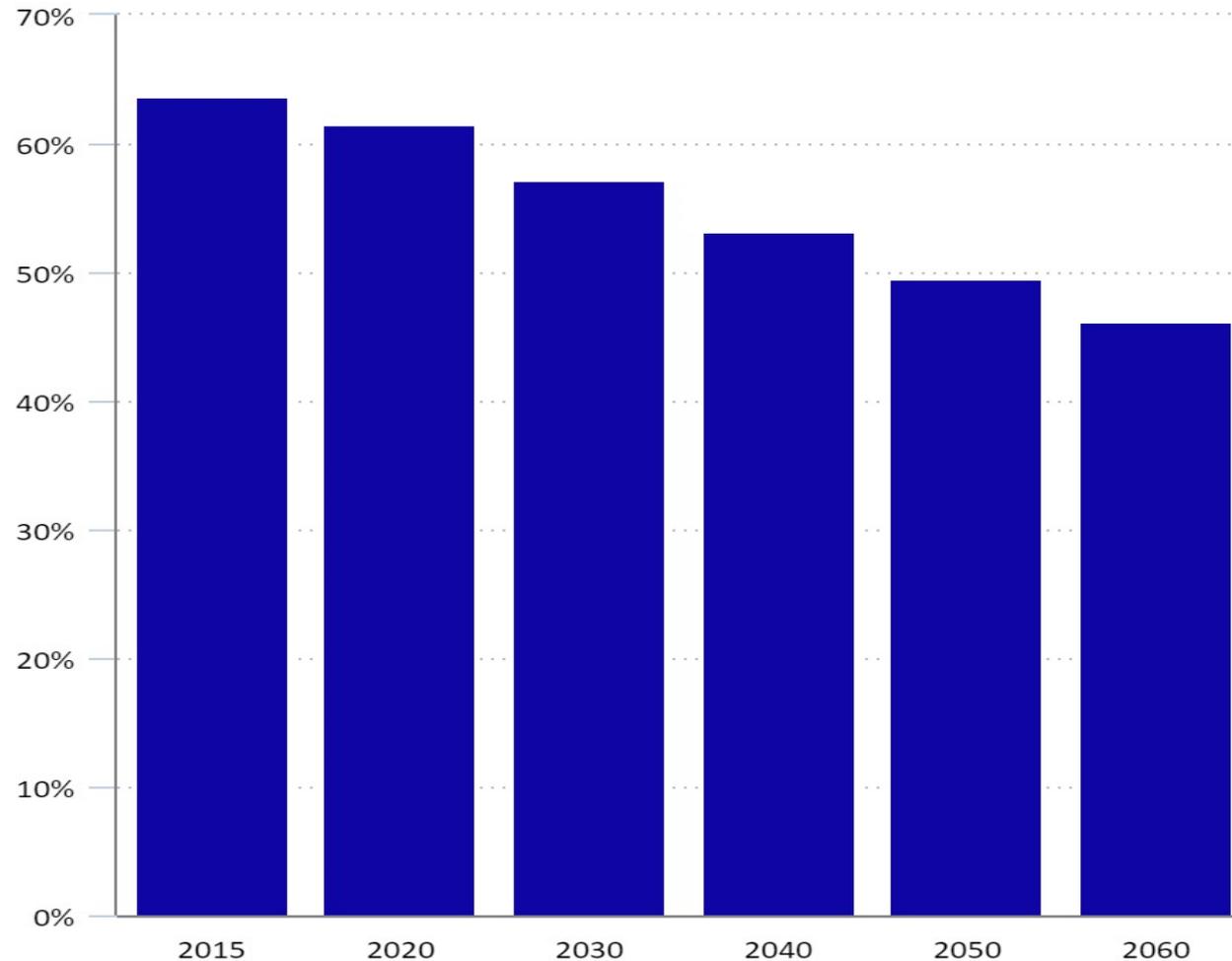
Survey research by economists Barrero, Bloom & Davis (2022) suggests that **many workers may not be coming back to work** due to concerns about COVID infection.  
*(Survey of Working Arrangements and Attitudes, monthly survey of 5000 workers, )*

“More than 10% of Americans who worked in 2019 say they will continue social distancing after the COVID-19 pandemic ends and another 45% will engage in limited forms of social distancing.”

- These workers, more likely to be low earners, less educated, older (but still working age) and female, → less likely to re-enter the workforce
- Many do not even want to do hybrid work where around other coworkers
- Estimates suggest this depressed labor force participation by 2.5 percentage points during Jan-March 2022, with little sign of abating.
- Potential long term effects for the labor market.

# Labor force composition → more diverse + older (age 55+ workers will comprise 26.8% --largest age group—of the workforce by 2060)

Share of white non-Hispanics in the labor force is declining



# Workers' median job tenure continues to decline

	January 2012	January 2014	January 2016	January 2018	January 2020	January 2022
Workers 25 years and older	5.4	5.5	5.1	5.0	4.9	4.9
Workers 25-34	3.2	3.0	2.8	2.8	2.8	2.8
Workers 55-64	10.3	10.4	10.1	10.1	9.9	9.8

<https://www.bls.gov/news.release/tenure.t01.htm>

# Workforce health and wellbeing

The COVID-19 pandemic has brought workplace health, especially mental health and well-being, to the forefront:

- 76% of U.S. workers in 2021 reported at least 1 symptom of a mental health condition (up 17 percentage pts in 2 years)
- 84% reported at least one workplace factor that had a negative impact on their mental health



“People are asking themselves what they want out of work. . .They’re also asking themselves what they’re willing to sacrifice for work, and the fundamental questions are reshaping people’s relationships with the workplace.”

Dr. Vivak Murthy, Surgeon General of the United States

# External funders are interested in a range of FOW topics

## Russell Sage Foundation – Future of Work funding priority includes

- Emerging Technologies and the Future of Work and Workers (robots, flexible manufacturing, AI-mediated decision-making, automation, algorithms)
- “The Big Shift” - Post COVID-19 shifts in labor force participation (health and safety, remote work, flexible schedules, union activity, geography of work, work-life balance)
- Labor Market Power and Institutions (availability of stable jobs, alternative governance structures/labor organizing, etc.)
- Workforce Development and Training (labor market intermediaries)
- Changes in Employer Practices and Alternative Work Arrangements (nonstandard work arrangements, intermediated work, worker recruitment and scheduling)
- Changing Economies, Changing Families (recent work-family legislation, flexible working conditions, working parents’ work life balance)

# External funders are interested in a range of FOW topics

## National Science Foundation – Future of Work at the Human-Technology Frontier

- How **human needs and values** will be respected as technologies, conditions, and work experiences are changing
- Societal infrastructure** accompanying new technology and preparing people for the future of work
- Designing **technologies with a positive impact** on individual workers and work
- Design of intelligent **technologies that operate in harmony with human workers**, including consideration of **how adults learn the new skills** needed to interact with these technologies in the workplace
- Understand ways of **mitigating potential risks including inequity** arising from future work at the human-technology frontier.



WORKERS

- What is/should be happening now to prepare workers for :
  - predicted changes,
  - and
  - unexpected shocks?

- How do we get to the most societally beneficial and just outcomes of these changes?

- How do workplaces need to adapt to successfully support human workers + their needs, while balancing use of technology?

NATURE OF WORK



# Where to start? Issues and some fundamental questions. . .



## Education: Accessibility + Flexibility

Higher education

Success for non-traditional students?

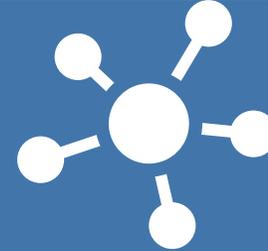
Must be nimble

Alternative models:  
Technical training/  
apprenticeships/other

Who pays? Public vs private  
good debate

## Fostering Societal and Economic Resilience

- How can economies rebound more quickly from shocks?
- The trend has been to reduce buffers and operate “lean”, which benefits individual actors, but is this the right approach in turbulent times?



## Institutions vs Networks as Nexus for Work and Careers

Traditional institutions seeing declining power and public trust

Aided by technology, networks + collaborative structures on the rise, seen more positively

But who controls networks?  
Winners/losers?

## Worker Health, Well-being, Resilience, Meaning

Will worker fears about returning to the workforce contribute to faster automation?

How will workplaces adapt as workforce ages and becomes more diverse?

Ethical obligation to prioritize people over technology? When/how?



# Today's symposium

- Education and the Labor Market
- Technology in the Workplace
- Future of Work and Health
- Plus hopefully some cross-pollination. . .



Your thoughts?