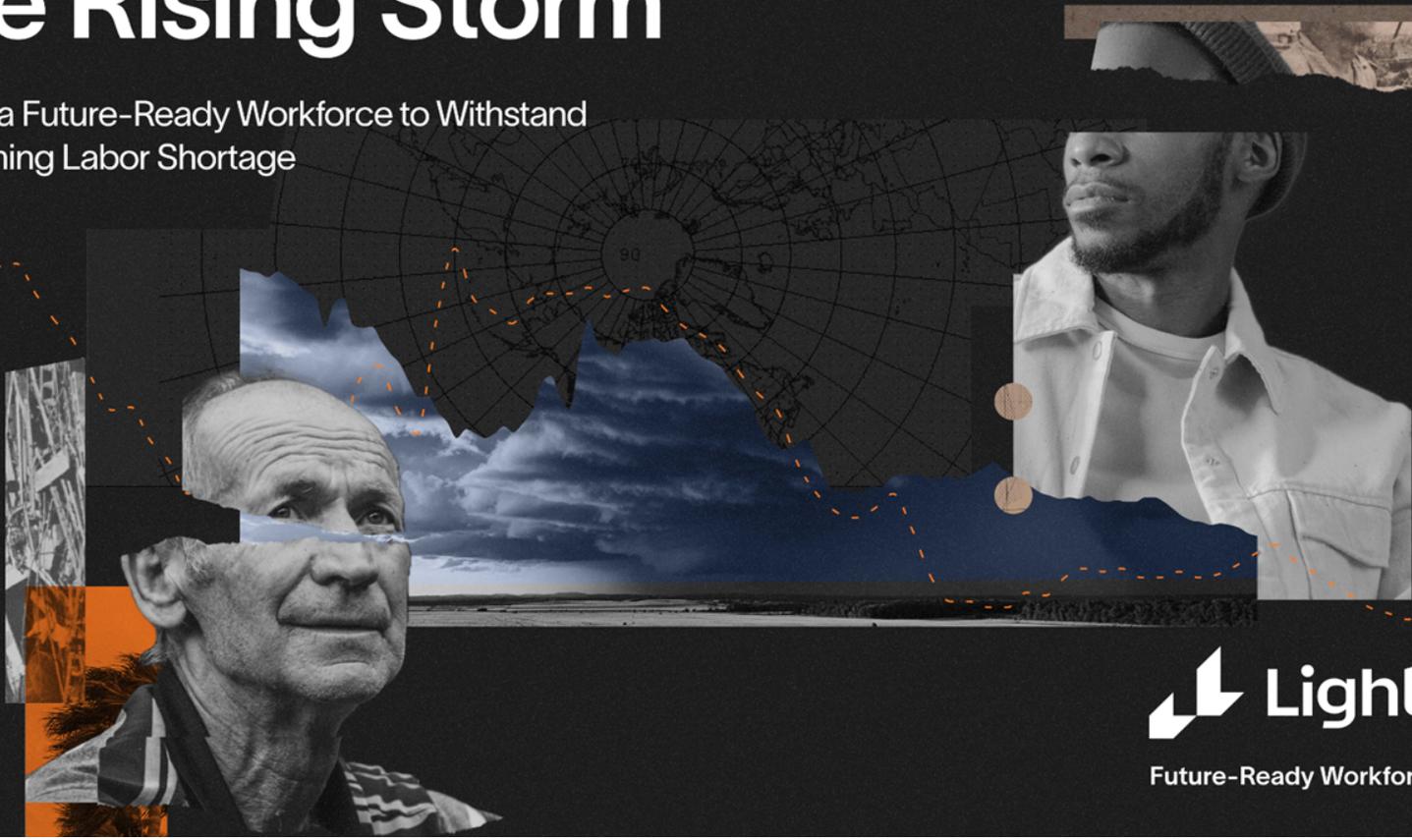


DEMOGRAPHIC DROUGHT

The Rising Storm

Building a Future-Ready Workforce to Withstand
the Looming Labor Shortage



 **Lightcast**

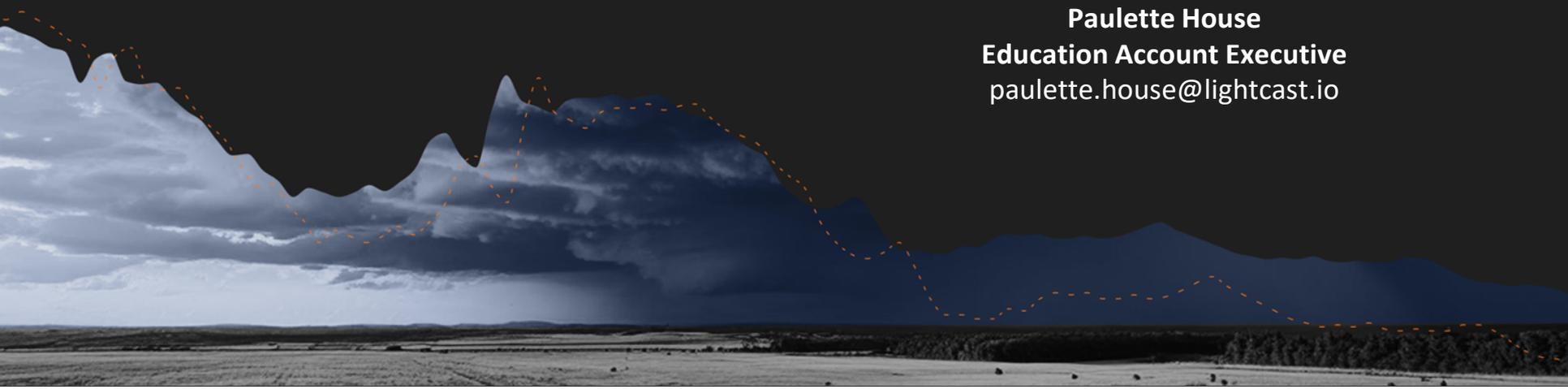
Future-Ready Workforce Collection

OVERVIEW

- 1. Conditions Forming** (past)
- 2. The Outer Bands** (present)
- 3. Landfall** (future)
- 4. Preparing for the Storm**



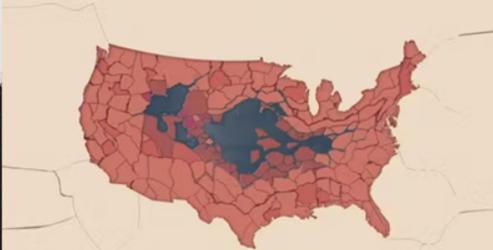
Paulette House
Education Account Executive
paulette.house@lightcast.io



THE

DEMOGRAPHIC DROUGHT

How the approaching sansdemio* will transform the labor market for the rest of our lives

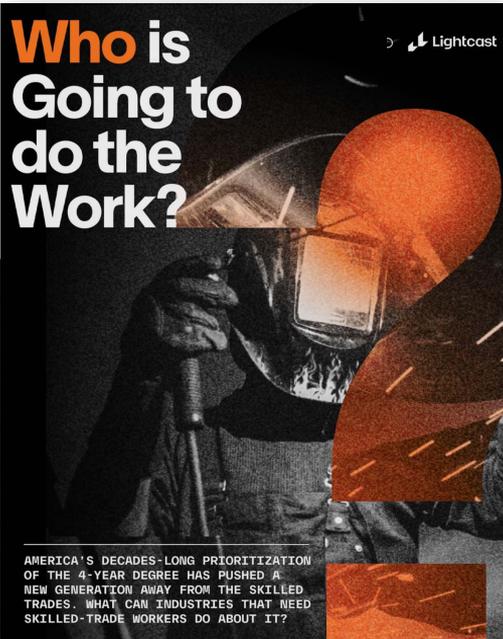


 Lightcast

*SANSDEMIC: sans-without, demic-people

Who is
Going to
do the
Work?



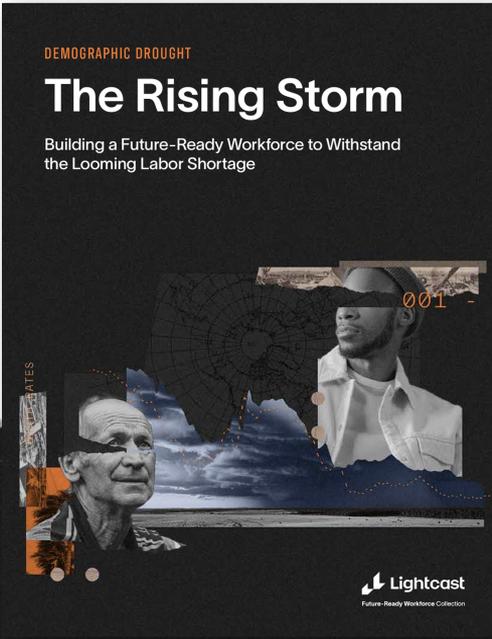


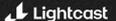
AMERICA'S DECADES-LONG PRIORITIZATION OF THE 4-YEAR DEGREE HAS PUSHED A NEW GENERATION AWAY FROM THE SKILLED TRADES. WHAT CAN INDUSTRIES THAT NEED SKILLED-TRADE WORKERS DO ABOUT IT?

DEMOGRAPHIC DROUGHT

The Rising Storm

Building a Future-Ready Workforce to Withstand the Looming Labor Shortage



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Future-Ready Workforce Collection

WORKFORCE PAST

Conditions Forming:
The Baby Boomers'
Labor Market

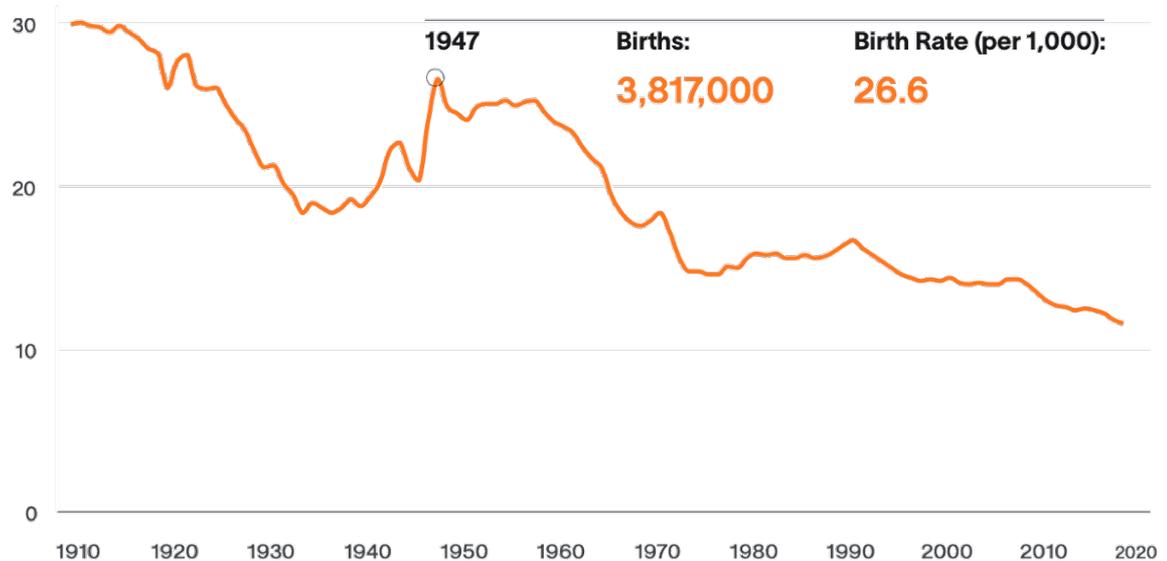


The 1970-90s workforce grew *rapidly* for two main reasons:

1. **Birth rate** was extremely high
2. Women entered the workforce in droves

The US birthrate swung upwards after WWII and peaked in 1947.

US Birth Rates (per 1,000 Population)



Source: National Center for Health Statistics

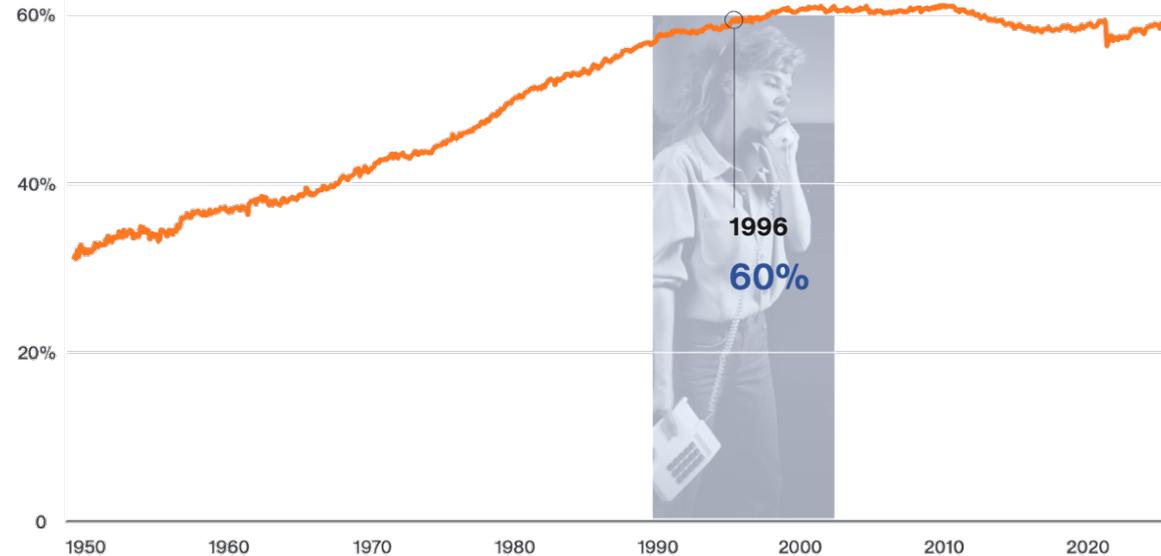


The 1970-90s workforce grew *rapidly* for two main reasons:

1. Birth rate was extremely high
2. **Women** entered the workforce in droves

From 1950 through 2000, female labor force participation rose consistently; reaching over 60% by the mid-1990s.

Civilian Labor Force Participation Rate, Women 20 Years and Over

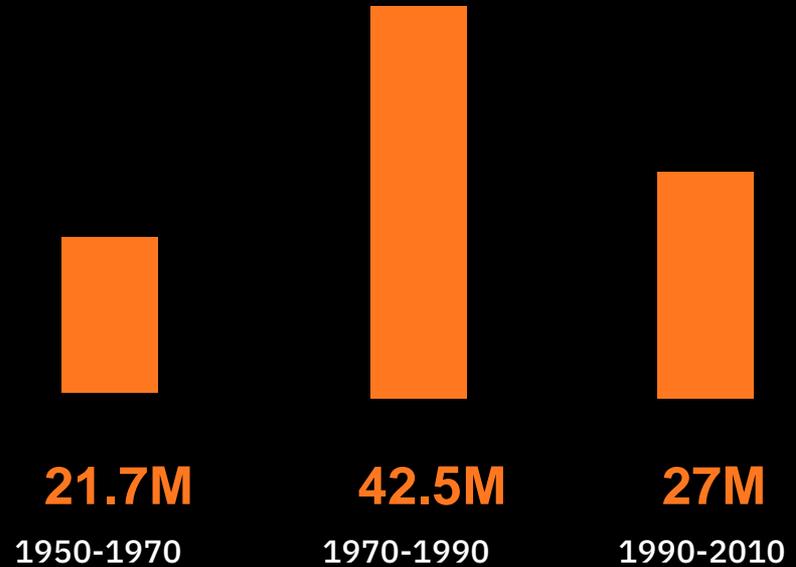


Source: Bureau of Labor Statistics



**Higher birth rates +
women entering
doubled our
workforce growth**

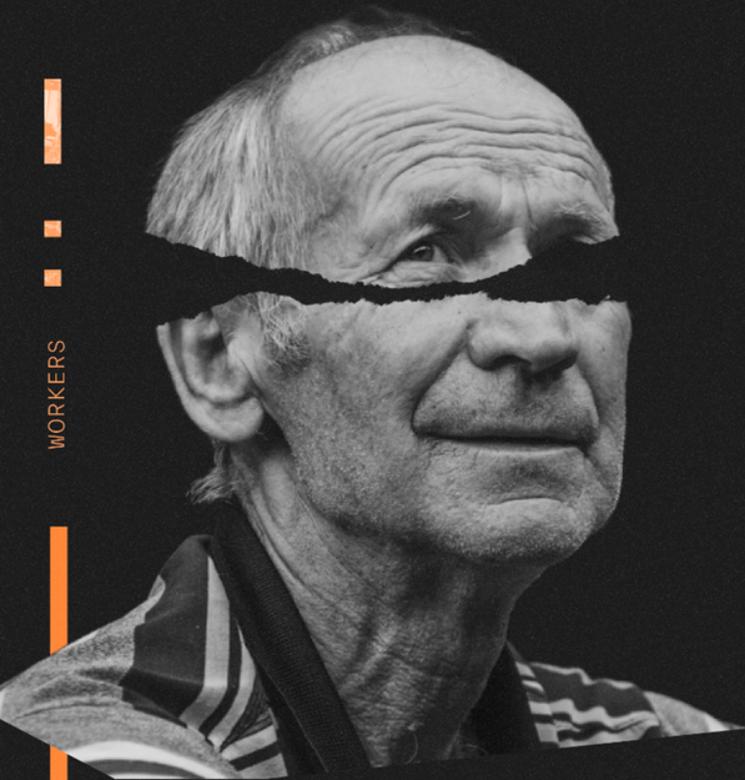
College enrollment
also jumped **100%** from
1965 to 1975 and continued
to soar, especially for women



Workforce increase by 20 year period

Source: Statista 2021

Boomer Mindset: Workers



WORKERS

“A college degree will set my resumé apart and get me the job I want.”

“I will move to get the best job for me.”

“My political priorities are creating more jobs and decreasing unemployment.”

“I need to limit or delay family responsibilities because they may put my career at risk.”

Boomer Mindset: Employers

“I can easily find workers with the skills I need, so I do not need to take on the burden of job training.”

“To narrow down the applicant pool, I will write job descriptions with *highly specific* qualifications and degree requirements.”

“What we pay is what we pay. If one worker doesn't like it, I can find someone else.”

“Workers are abundant and easy to replace. So we can afford to lay people off during slow cycles at the company.”



The Silver Tsunami

The US workforce soared as the Baby Boomer Generation began.

Baby Boomers born:

1946-1964

[Current Ages: 60-78]

US population, age 55+



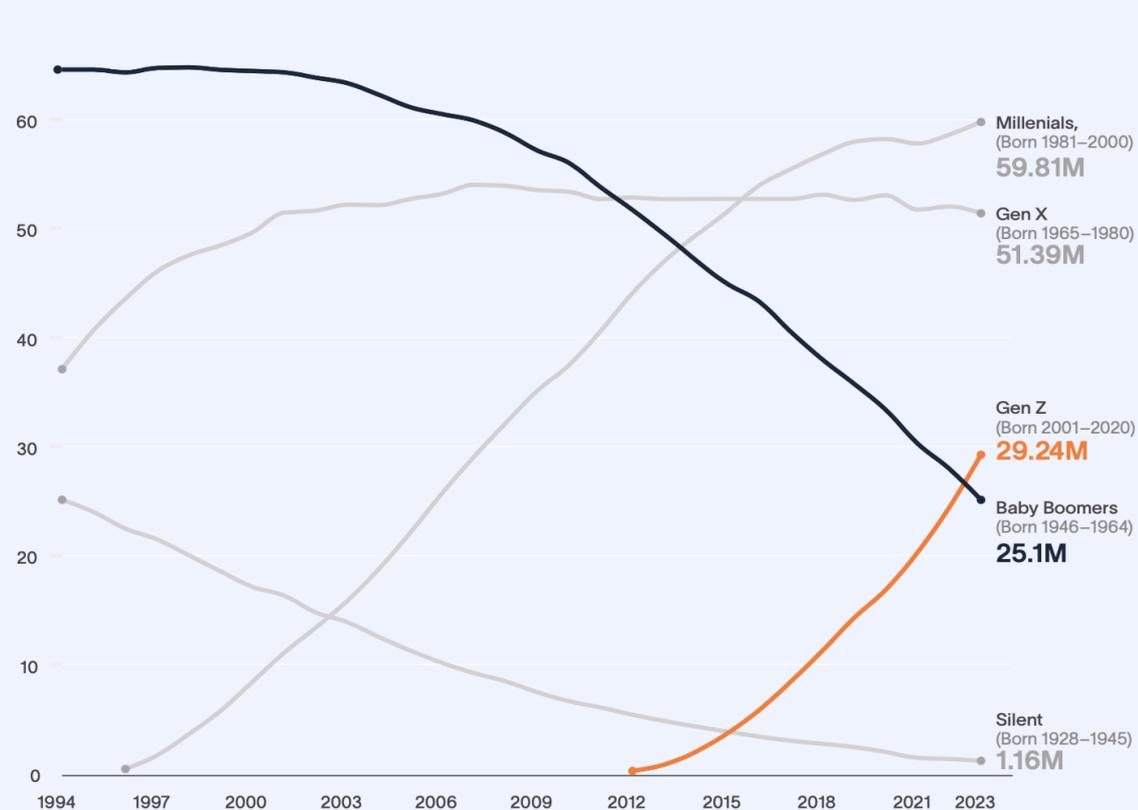
The Silver Tsunami has hit shore

We are now at “Peak 65.”

With Boomers heading out of the labor force, they are no longer working paid jobs, but growing into a huge **dependent population**.

The Baby Boomers are now the second-smallest generation in the US labor force.

Annual US Labor Force, In Millions



Source: US Census Bureau Current Population Survey; Lightcast Analysis

WORKFORCE PRESENT

The Outer Bands:
**Today's Labor
Market**

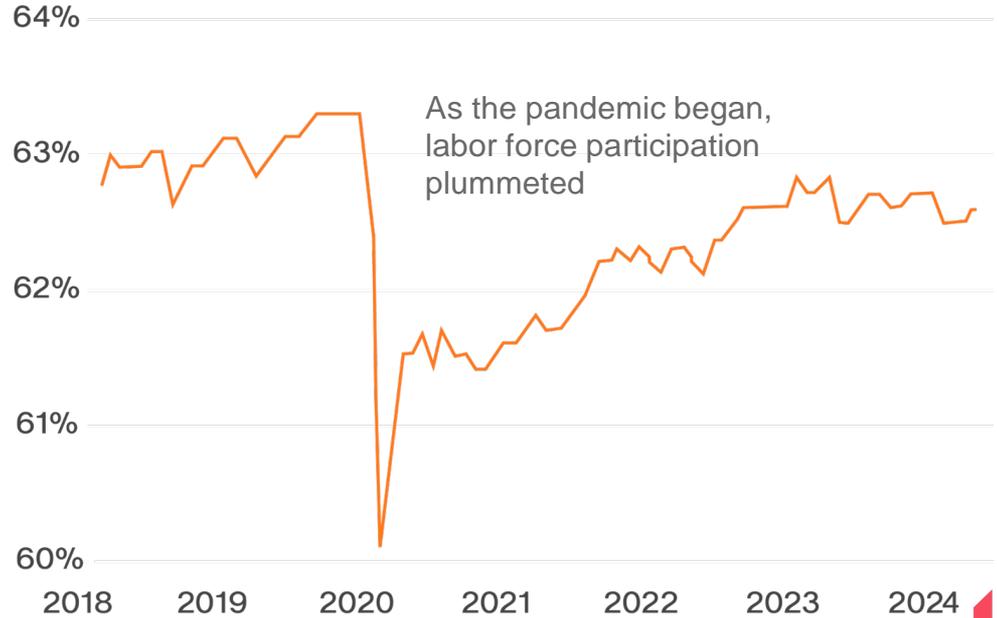


The *First* Outer Band

The pandemic pushed an accelerator pedal down on trends that were already coming. People have left the labor force **faster than we thought**.

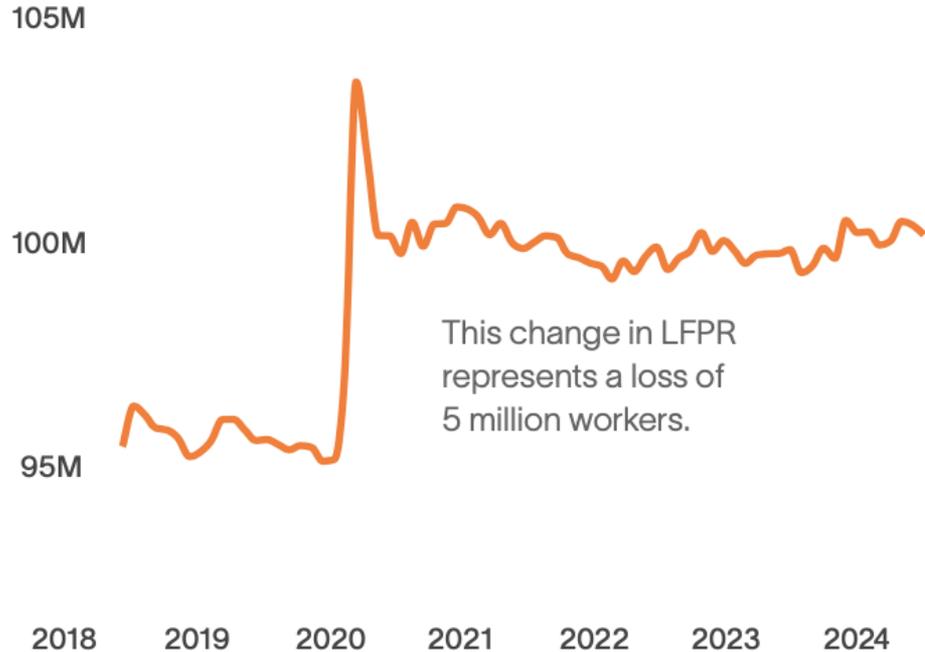
The LFPR took a serious hit in 2020 and has not recovered since.

Labor Force Participation Rate



We lost *5 million people* overnight

Total Adult Population Not in Labor Force



Labor participation for older adults dropped sharply during the pandemic.

Civilian Labor Force Participation Rate, Age 55+



Source: Bureau of Labor Statistics

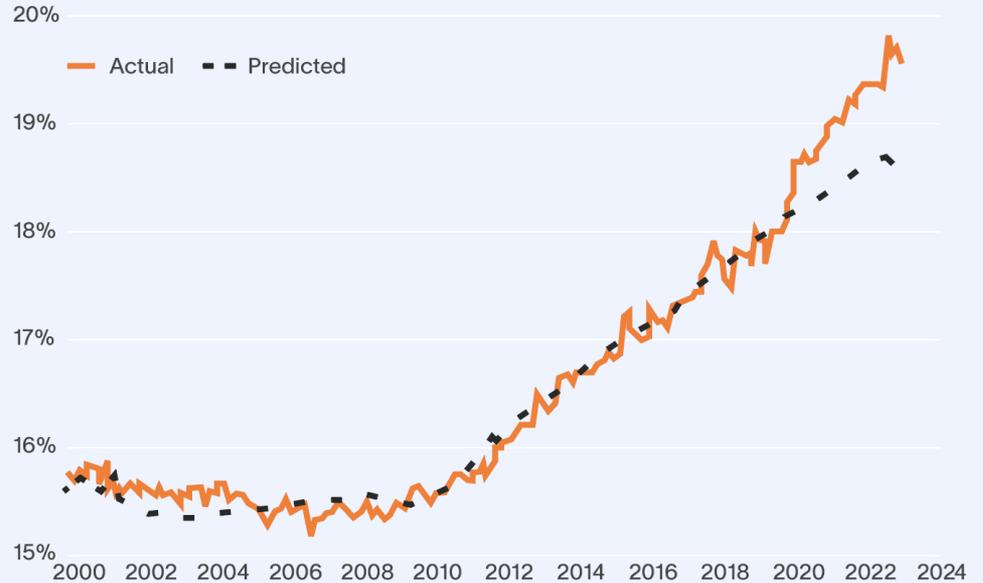
Out of the 5 million people who have left the labor force since 2020, **80%** are over the age of 55.



Boomers are *exiting* the labor force en masse.

Actual retirements are much more frequent than were projected.

Percentage of 16+ Population That Is Retired



Source: St. Louis Fed *On the Economy*



18M



Increase in
Consumers

From 2024 to 2032,
US population growth
will *outpace* labor force
growth by nearly
4 to 1.

~5M



Increase in
Producers

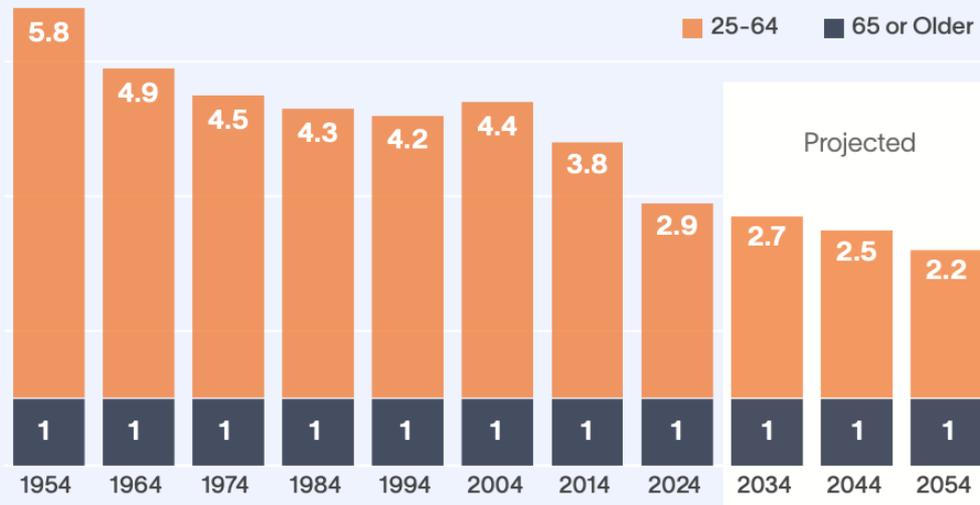
US Population
Growth, 2024–32

US Labor Force
Change, 2024–32

Workforce entrance imbalance impending

Every year, there are fewer working-age people to support the older population.

Ratio of 65+ Population to 25–64 Population



Source: Congressional Budget Office

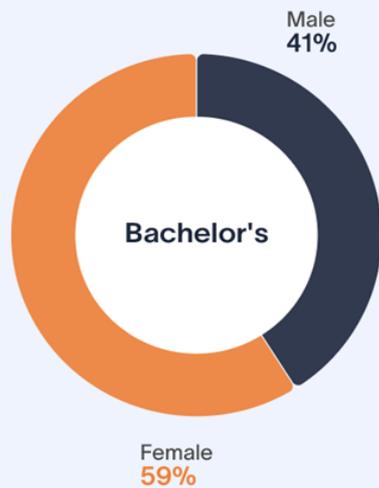
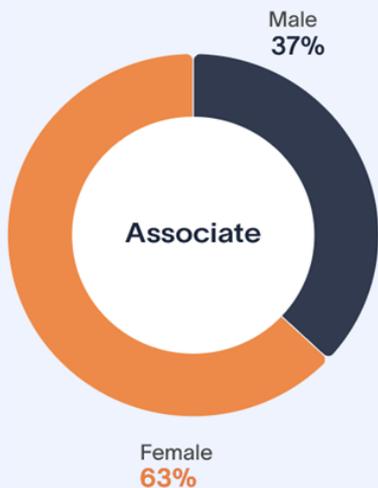


The Dilemma

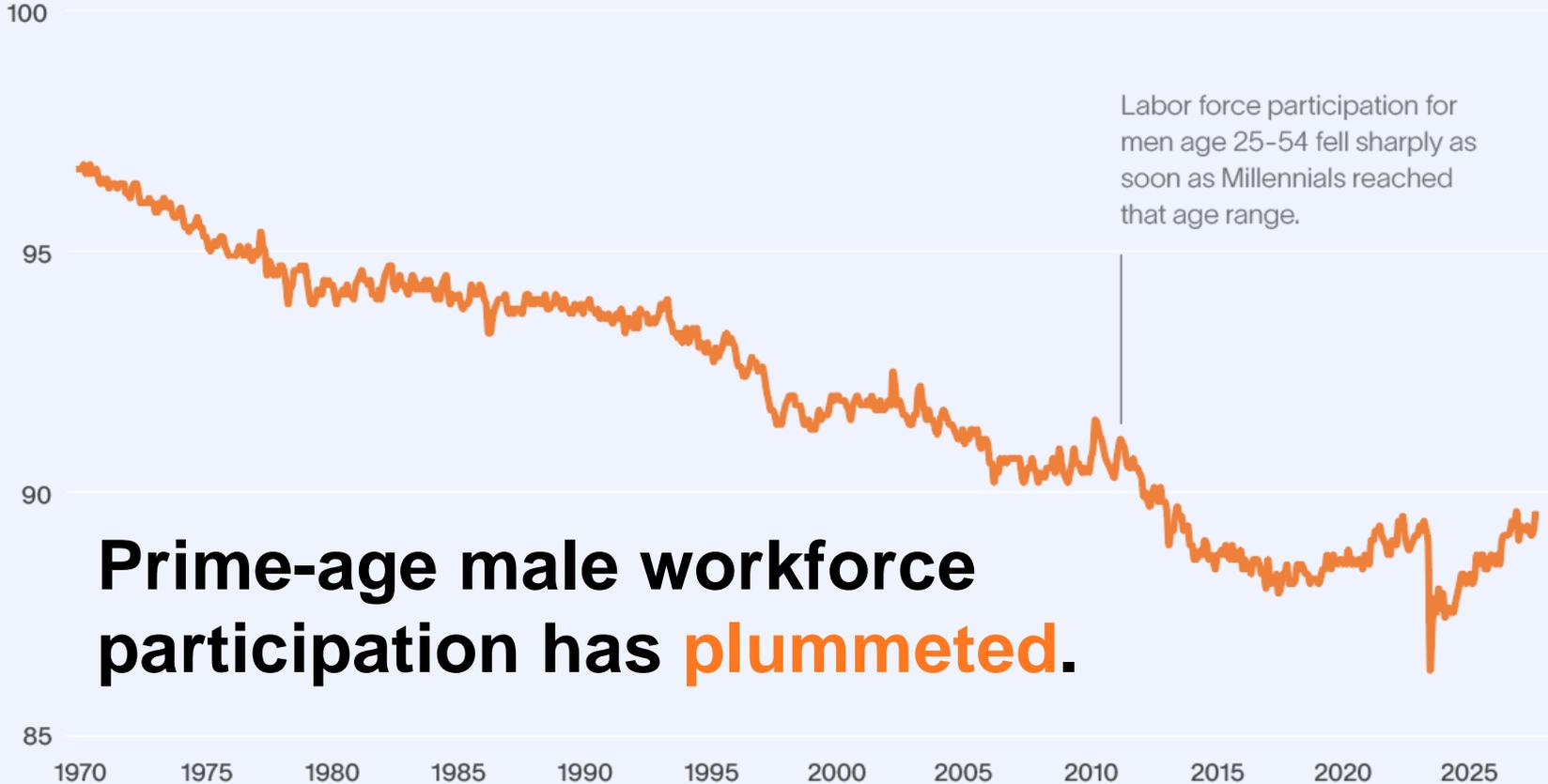
The educated labor force and the disappearance of men



Women Now Earn the Majority of US College Degrees at Every Level.



LFPR, Men Ages 25–54



Prime-age male workforce participation has plummeted.



Many occupations in the skilled trades rely on a workforce that is over 90% male.

% Male by Occupation (4-digit SOC), 2024

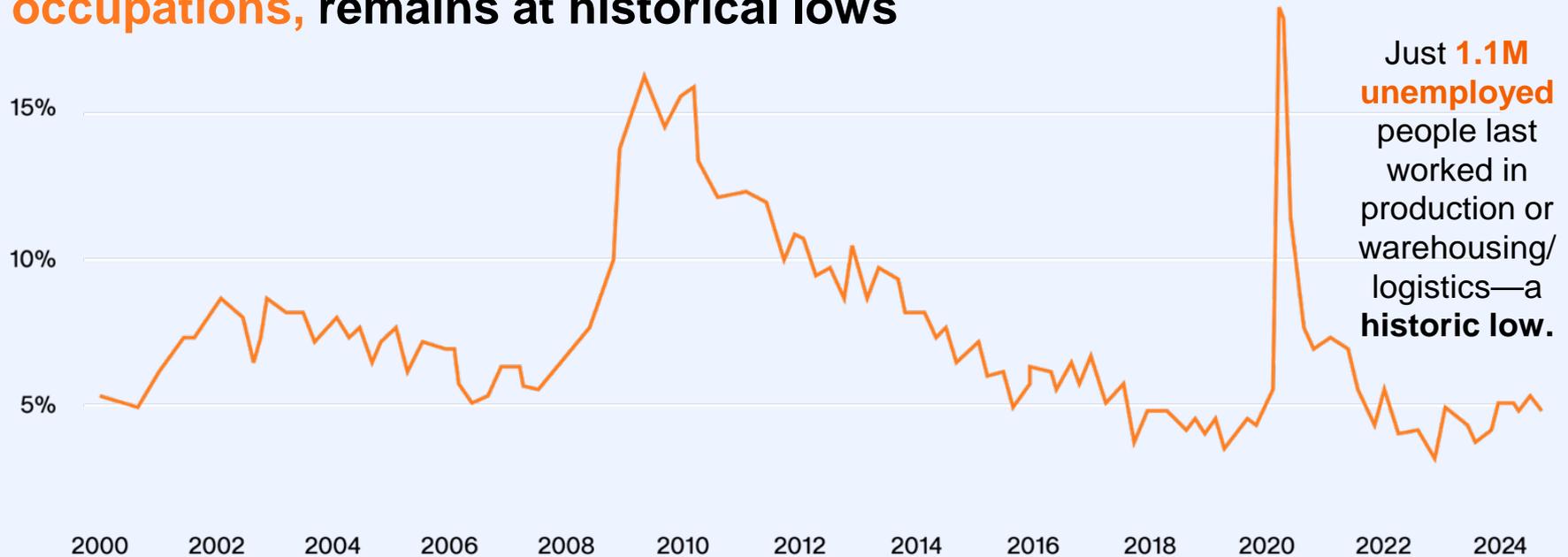


...meaning these occupations are disproportionately affected.



How do we hire people who **aren't looking** for work?

Unemployment for many blue-collar jobs, including **production occupations**, remains at historical lows



The labor market toll of substance abuse

DRUG-RELATED DEATHS

100,000+

overdose deaths per year. *(But provisional data shows a decline since mid-2023.)*

70%

of overdose deaths are from opioids.

1 in 4

overdose deaths were in **construction and extraction occupations**, which are 96% male and almost 70% prime-age.

The majority of overdose deaths and drug-related incidents occur among **prime-age men without a college degree**.

THE TOLL OF ADDICTION & SUBSTANCE ABUSE

2.7 M

people are out of the labor force due to addiction.

1.2M

of these are due to opioids.

232 M

missed work days due to alcohol alone—the equivalent of **112,000 full-time workers** missing for an entire year.



The labor market toll of incarceration

INCARCERATION

1.9 M

people are behind bars in the US.

1 in 5

people are there for a drug offense.

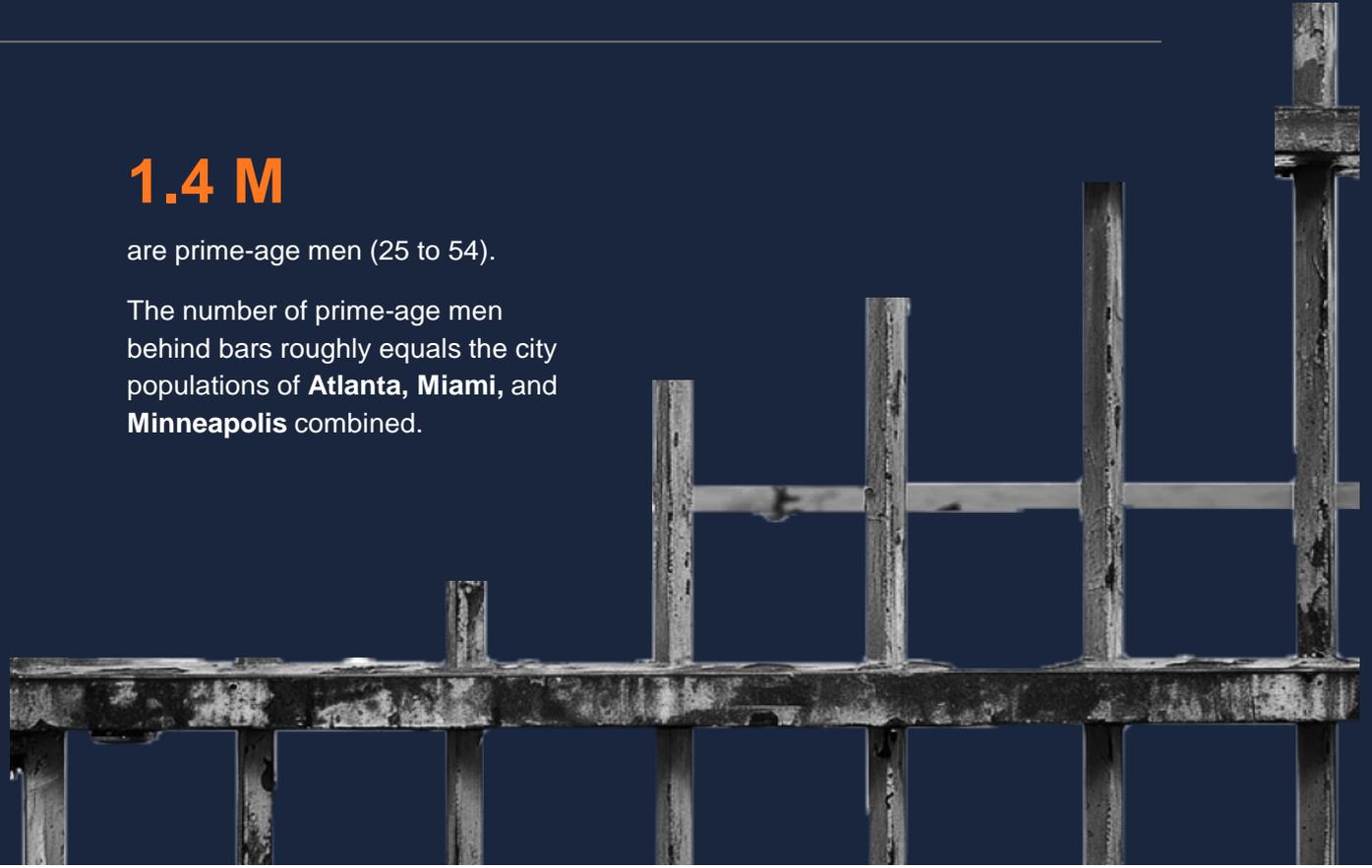
9%

of all men in the US will serve time behind bars in their lifetime.

1.4 M

are prime-age men (25 to 54).

The number of prime-age men behind bars roughly equals the city populations of **Atlanta, Miami, and Minneapolis** combined.

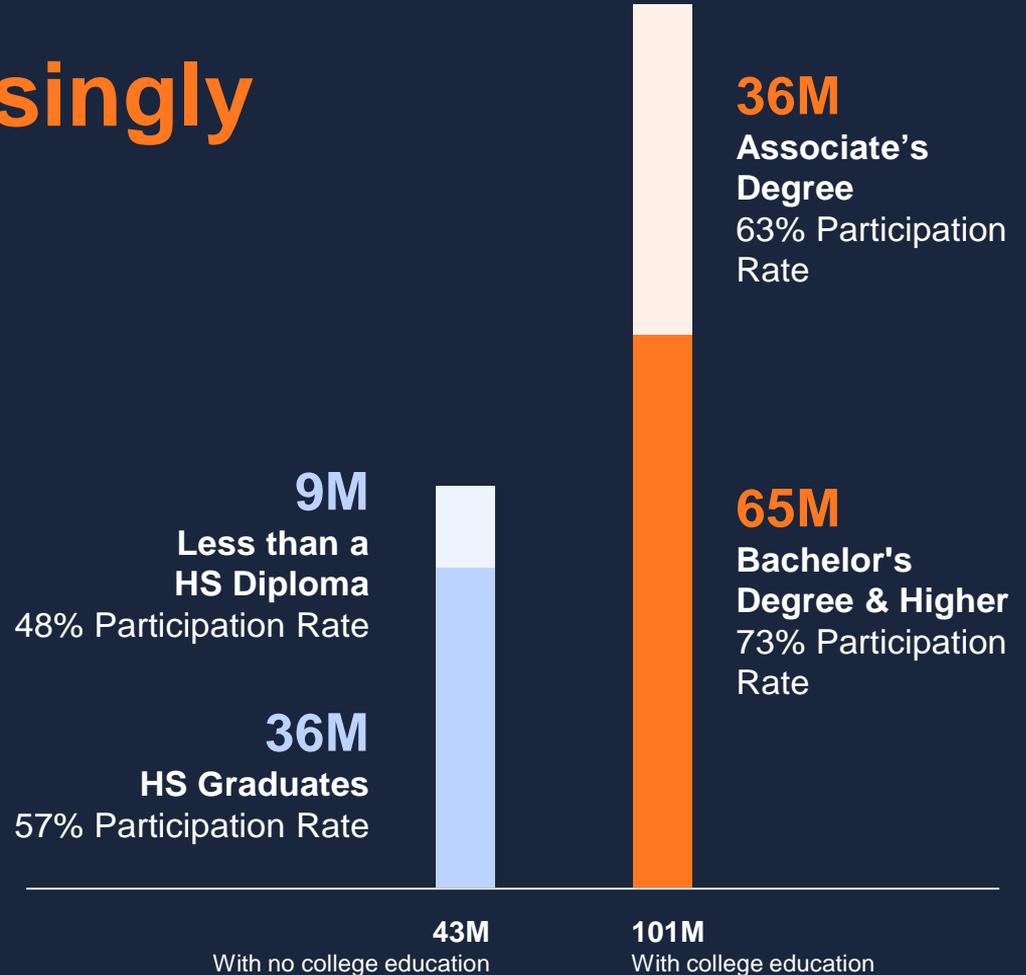


The US is increasingly highly educated.

In 1992, the 25+ labor force was split almost 50/50 degreed vs not.

Now it is **69% degreed** vs 31% not.

Data shows adults 25 years and older



Since 2019, all of the US labor force net growth has come from people with a bachelor's degree.

Change in US Labor Force, age 25+: Jan. 2019–Jan 2025



But here's the **mismatch**:

Roughly **60%** of all open jobs **do not** list a **college degree requirement**.

More and more companies are **hiring based on skills** instead of (or in addition to) requiring degrees

% of current employment and job titles by education needed

Education level needed	% of current jobs	% of titles
High school diploma or less	68%	58%
Bachelor's degree or higher	30%	41%



The war for talent is on (especially hourly)



BUSINESS
NORTH CAROLINA



Amazon adding 1,000 jobs at new Pender County center

Kroger bolsters work force with almost \$800M

RETAIL

Home Depot says it will spend \$1 billion to give hourly workers a raise

PUBLISHED TUE, FEB 21 2023-6:00 AM EST | UPDATED TUE, FEB 21 2023-6:59 AM EST

Target doubles bonuses for salaried employees as profits surge

In-store managers and supply-chain operation leaders are among those who will get the bonuses.

ACTIVISM / AUGUST 8, 2024

For Amazon Workers, \$30 Is the New \$15

Business Insider

Walmart, Target, Kroger in 'Labor Hoarding' War for Workers



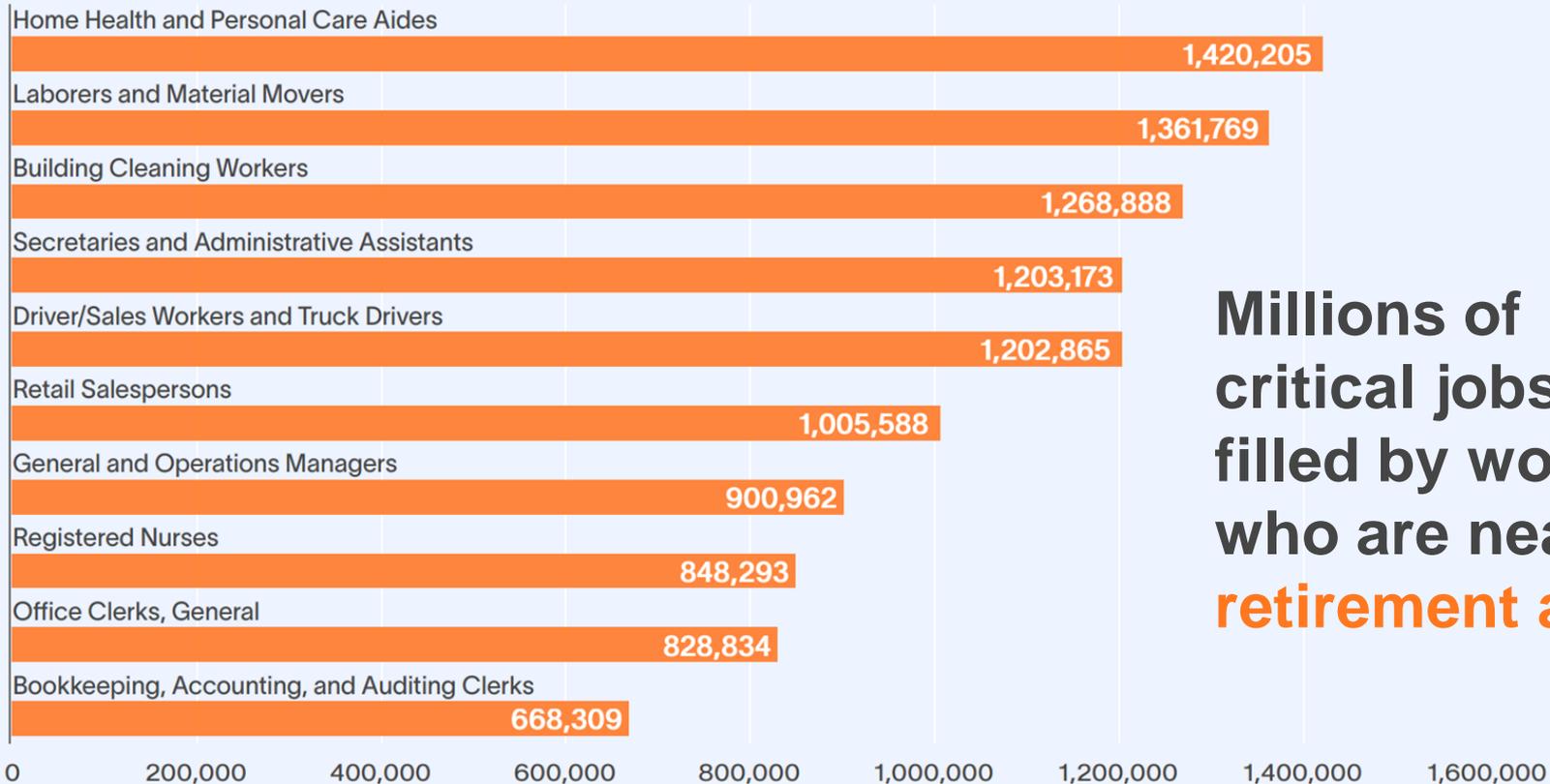
NEWS > COMPANY NEWS

Costco's Average Hourly Wage Is Over \$30. Here's How That Stacks Up

Residential Building Wages Grow at Unprecedented Rate



Top 10 Occupations (4-Digit SOC) With the Highest Number of Workers Age 55+



**Millions of
critical jobs are
filled by workers
who are near
retirement age**



WORKFORCE FUTURE

Landfall, The Decade Ahead



Misalignments will worsen our labor shortages.

BLS projected net job change and annual occupational openings by education needed, 2023–2033

Education Needed	Net Employment Change	Annual Occupational Openings	
NO DEGREE	2.8M (280K/yr)	14.4M	Net gain of just 188K under-65 workers per year
% of total	42%	77%	
	<i>Short by 92K/yr*</i>		
DEGREE	3.9M (390K/yr)	4.2M	Net gain of over 345K under-65 workers per year
% of total	58%	23%	
	<i>Short by 45K/yr*</i>		

REMEMBER: 16-24 year-old Labor Force will be *shrinking* 2M during this time.

*Shortage will need to be made up of 65+ workers



The **188K new non-degree workers** projected to join the labor force each year are needed in critical roles.

According to Lightcast data, there are roughly...



462K

Job openings in construction and skilled trades



394K

Job openings in the food industry



410K

Job openings in community, protective and personal care



148K

Job openings in healthcare that do not require a medical degree or certification.

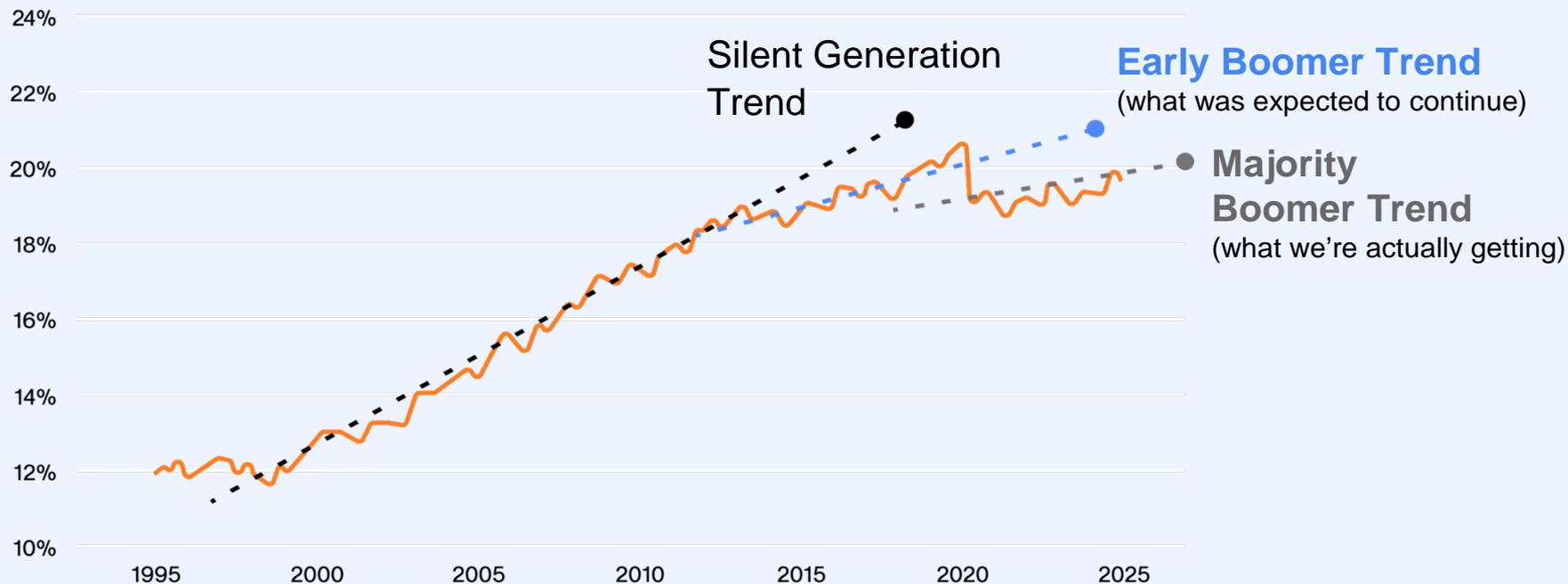
**And the BLS anticipates the retirement-age population to carry
1/3 of growth in the labor force.**

Is this realistic?



About that projected growth in the aging labor force...

(Unadjusted) Labor Force Participation Rate – 65 yrs. & Over



Source: BLS



As Boomers age into new cohorts, they are leaving the labor force in droves.

(Unadjusted) Labor Force Participation Rate

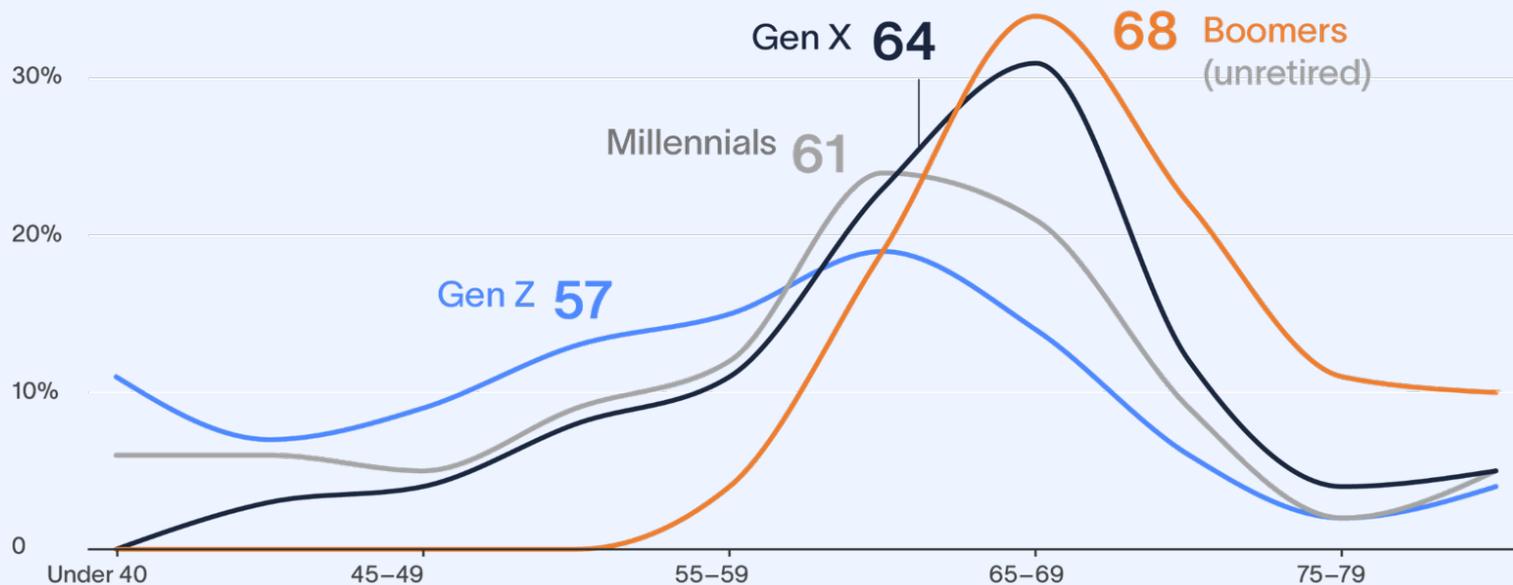
Age	Labor force	LFPR %
60-64	12.3M	58%
65-69	6.5M	34%
70-74	3.3M	20%
75+	2.9M	9%

The 75+ LFPR is **dropping**—not rising.



Every generation says they plan to retire earlier than the generation before.

Survey: "At what age do you expect to stop working?"



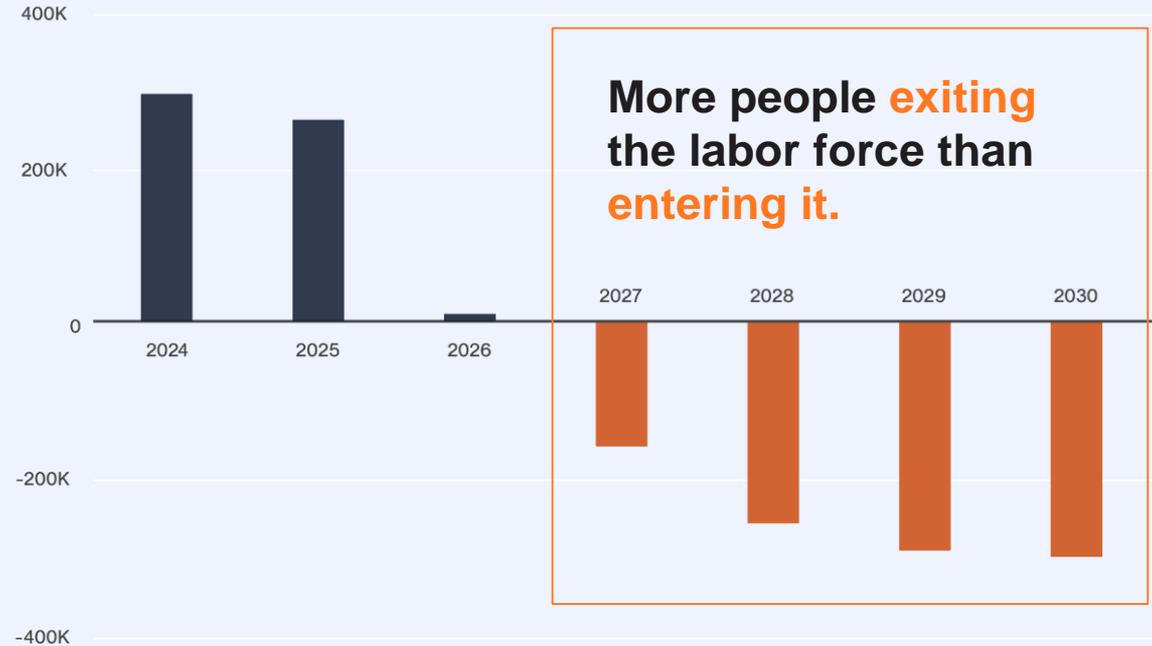
Source: 2022 Investopedia Financial Literacy Study



Landfall

If older Americans do retire earlier, then the math of the landfall gets even worse.

Simulated Net Change in the US Working-Age Population Excluding Immigrants



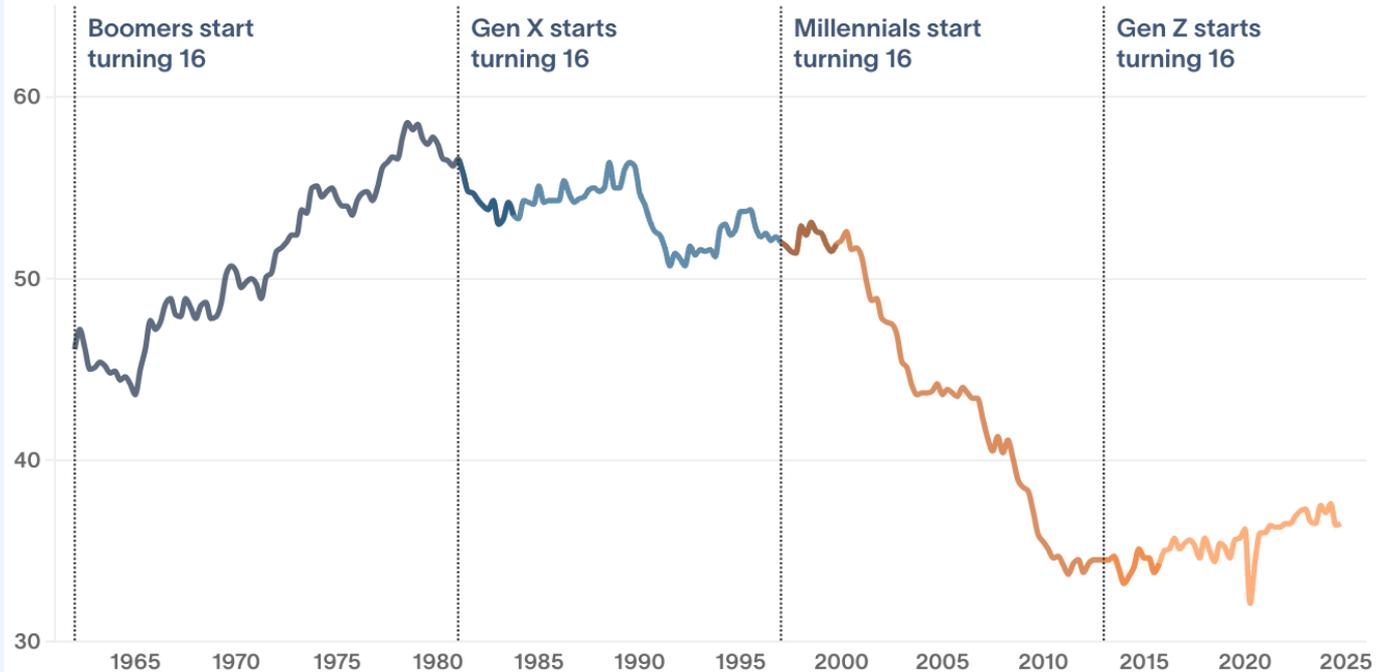
Graph represents population change if 65 year olds (workforce exits) are subtracted from 16 year olds (workforce entrants).



At the same time that older Americans are retiring, **teens are working at historically low rates also**—leaving entry-level jobs unfilled and lowering job prospects for inexperienced college grads.

The labor force participation of teens (16–19) peaked among late Baby Boomers, then fell dramatically when Millennials entered their teen years.

Teen Labor Force Participation Rate by Generation



Source: [Lightcast/Hannah Griesser](#), Bureau of Labor Statistics, Feb 2025



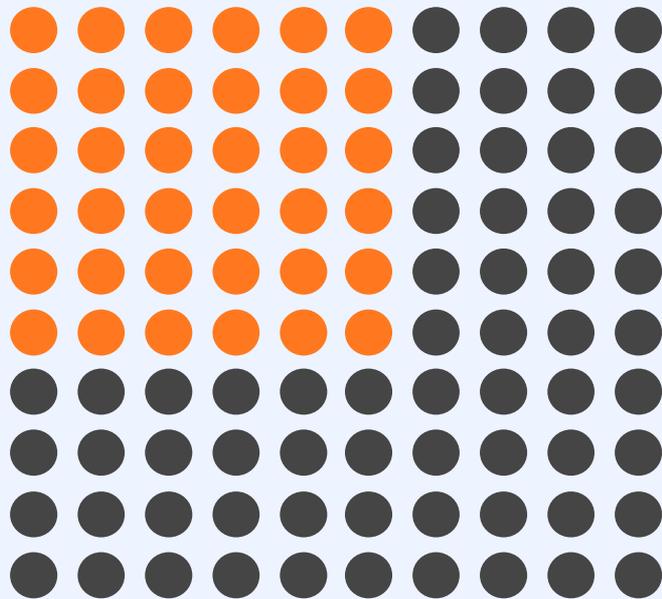
The background of the slide is a dark blue, almost black, sky filled with soft, white, and light blue clouds. The clouds are scattered and vary in density, creating a textured, atmospheric effect. The overall tone is somber and contemplative.

**So, Who *is* Going to
Do This Work?**

Of the top 100 occupations* with the highest % of women...

36

require a degree.



The majority of these roles are in healthcare and education

*out of 798 total 5-digit SOC occupations

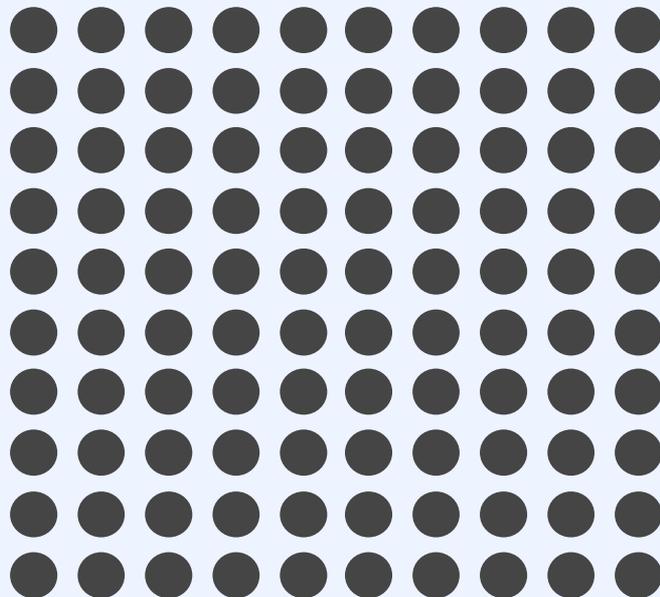


Of the top 100 occupations* with the highest % of men...

0

require a degree.

Yes, **ZERO.**



The majority of these roles are in non-office jobs like skilled trades, mining/extraction, or transportation.

*out of 798 total 5-digit SOC occupations



As *demand* increases in these non-BA sectors, competition is intensifying for jobs typically sought by those with a BA.

Young adults (20–24) with a BA now have higher unemployment than those with an AA or who did not complete their degree.

Annual Unemployment Rate of 20-24-Year-Olds by Education.



Source: [Lightcast](#), Bureau of Labor Statistics, Feb 2025



Immigration has become the main source of talent that is keeping the US labor market afloat.

Since early 2020...

**All the net
increase**

of the US labor force was
foreign-born.



The native-born labor force has not experienced any meaningful growth in the past 5 years.



Population ended Dec. 31 & rose by 0.2% to 41.53 million = slowest growth since 4th quarter of 2020, when it grew by 0.1% (StatCan) Declines expected in 2026.

Slowing immigration could impact availability of labour and hurt demand...but immigration contributed to an affordability and housing crisis.

Aging in Canada is even more rapid than U.S. Demands of labour market & career goals of people are misaligned also.

Canada's population grew at slowest pace since pandemic in fourth quarter

By Promit Mukherjee

March 19, 2025 7:17 AM PDT · Updated 2 months ago



What about...

Artificial Intelligence?



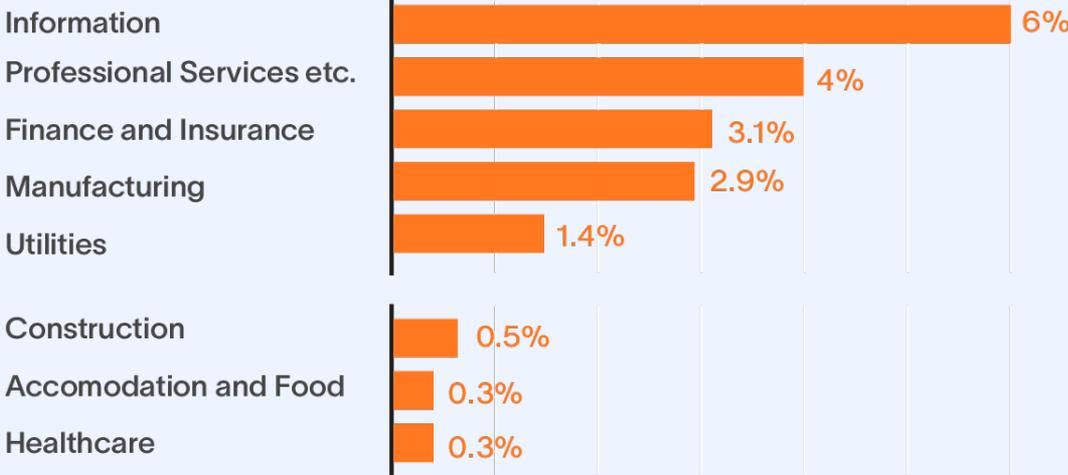
Non-Human Augmentation May Be Years Away from Tangible Help in Sectors That Need it Most.

These are not the occupations in the direct path of the storm:

Occupations most exposed to AI and LLMs

- 1. Management consultants and business analysts
- 2. Financial managers and directors
- 3. Chartered and certified accountants
- 4. Psychologists
- 5. Purchasing managers and directors

% of postings needing AI skills



Lessons From Japan

Japan's workforce is aging fast. It's adapting to a *shortage of young talent by...*

- + Offshoring
- + Expanding immigration
- + Invest in labour-saving tech
- + Delayed retirements
- + Increased urbanization



A “white-collar recession”?



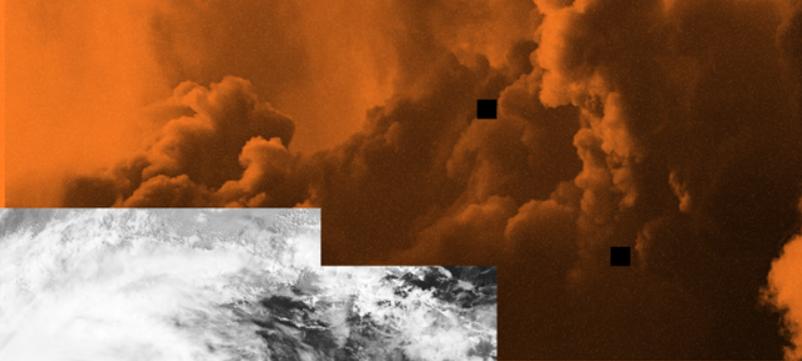
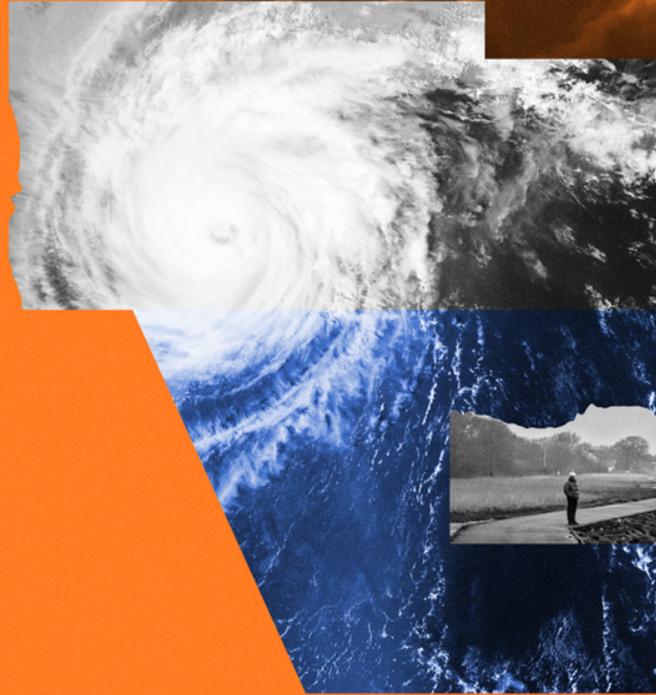
- Artificial intelligence,
 - Older workers, and
 - Young college grads
are coming for the *same jobs*.
-

This lopsided workforce will leave
millions of important jobs unfilled.



WHAT WE CAN DO

Storm Preparedness



Recognize the Ways Work Can Get Done: Only 4 Options



LOCAL WORKFORCE DEVELOPMENT

With fewer workers available, companies will need data-driven strategies both to compete in the open market for talent or to develop the skills of their existing workforce.

Higher ed plays a **vital role** in this option.



GLOBALIZATION: PUSH WORK TO OTHER COUNTRIES

The rise of remote work has opened the door to more globalization in more industries. As US population growth slows, reliable global data can show you where to invest.



AUTOMATION

AI won't replace anyone's job anytime soon, but automation can help improve efficiency in many industries that are running low on talent. Specific industry data can reveal if this is a viable solution.

Higher ed can also contribute to **innovations** in this area.



IMMIGRATION: PULL WORKERS IN FROM OTHER COUNTRIES

The US has shown it cannot sustain its workforce with US-born workers, so immigration will remain the most important path forward.



Higher Ed's Role in Local Workforce Development

1. **Align, align, ALIGN.** This is *priority one*. Research the needs of the labor market (including high-demand jobs, skills, occupations, degrees) both locally & nationally. Realign programs and partnerships in ways that can address the most critical needs first.
2. **Leverage skills data** to identify gaps between market demand and program offerings. Also help students understand & communicate which skills (both specialized and durable) they bring to the table when they graduate.
3. **Partner with businesses** to build win-win “earn and learn” opportunities. Helping students gain on-the-job experience and build professional networks in their field of choice can result major advantages after graduation.
4. Advise undecided students to consider degrees in **high-demand, high-employment** fields.
5. **Engage non-traditional students and mid-career adults.** “Peak 18” is NOW. Fewer high school grads are coming. But many adults say they “feel stuck” in low-wage jobs, so the right set of new skills can lead to better jobs and new pathways to advancement.



Post-Secondary Highlights: Northeastern University

Defined the emerging “skillstech” landscape, discussed how it is evolving, & identified key issues for stakeholders to consider.

The analysis is based on extensive secondary research and primary interviews and demos with skillstech providers and other industry leaders.



Northeastern University, Key Takeaways:

One universal skills taxonomy appears to be unrealistic

- Wide variation across industries; lack of one-size-fits-all
- Skills solution orgs are focused on tools that are contextual & adaptable
- Industry and occupation specific taxonomies are especially important
- Value of crosswalks and standards to integrate taxonomies



Northeastern University, Key Takeaways:

Many orgs are increasingly thinking of skills as multi-dimensional: Focus on skill clusters, proficiency, and validation

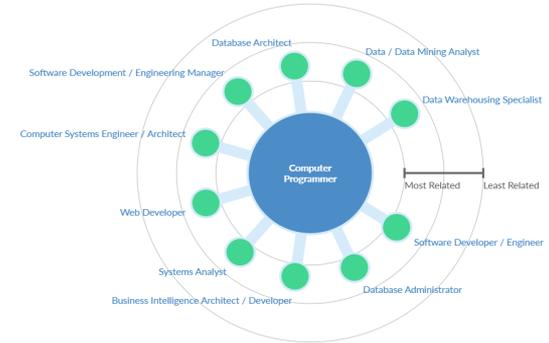
- Grouping skills and summarizing them with a name adds dimension and context
- Assigning proficiency levels to skills is valuable & hard (not yet agreement on the number of levels of proficiency a skill should have)
- Skills validation-ed institutions are gatekeepers of proficiency validation for employers



Northeastern University, Key Takeaways:

Establishing an architecture for skills portability and data Consistency can benefit all stakeholders

- Educational institutions, industry, and government collaborating on the interfaces of technology and skill models
- Workers have clearly defined, comparable, & sharable data on their skills
- Tracking skill development over the course of a career (where skills can be applied in other domains)



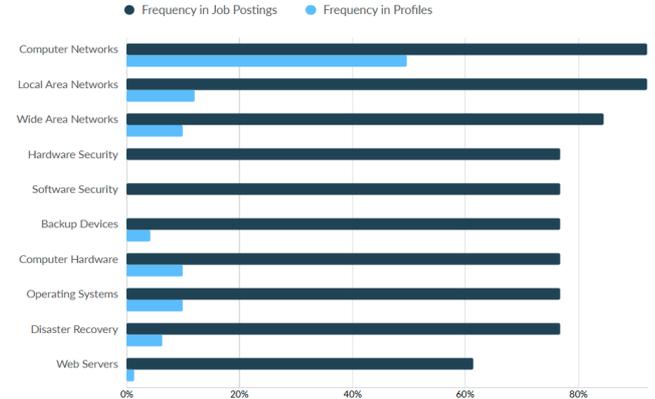
Post-Secondary Highlights: Illinois Gie College of Business

Creation of new graduate certificates

Expanded an innovative undergraduate business minor

- Used labour market data to assess the demand for each new certificate
- Mapped out career pathways for upskilling
- Scripted graduate webinars to drive enrollment

Top Specialized Skills





Paulette House

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Education Account Executive
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SCAN



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