DEMOGRAPHIC DROUGHT

The Rising Storm

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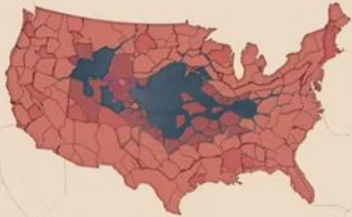
Lightcast

Future-Ready Workforce Collection

THE

DEMOGRAPHIC DROUGHT

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

Lightcast

*SANSDEMIC: *sans*-without, *demic*-people

Who is Going to do the Work?

Lightcast

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
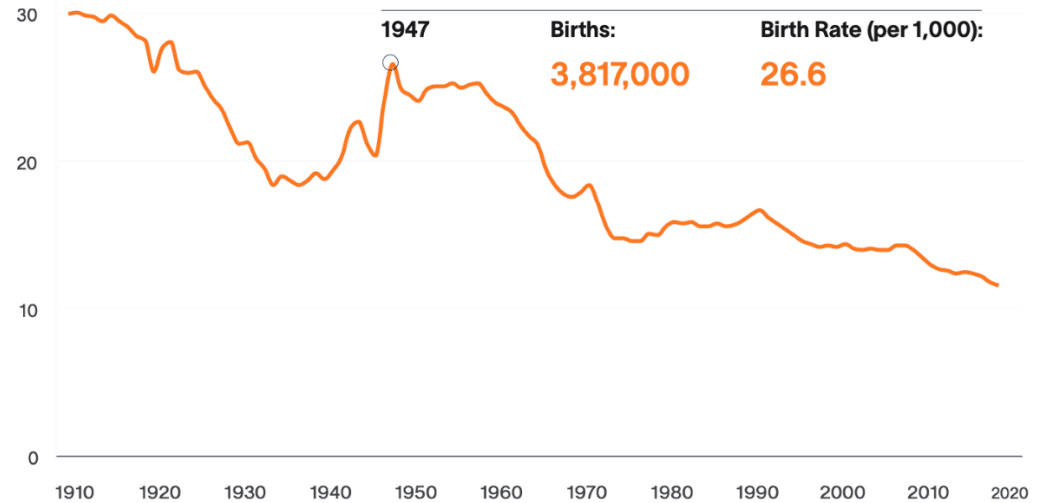the Looming Labor Shortage

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The 1970-90s Workforce Grew Rapidly For Two Main Reasons:

- **Birth rate** was extremely high

- Women entered the workforce in droves

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

US Birth Rates (per 1,000 Population)

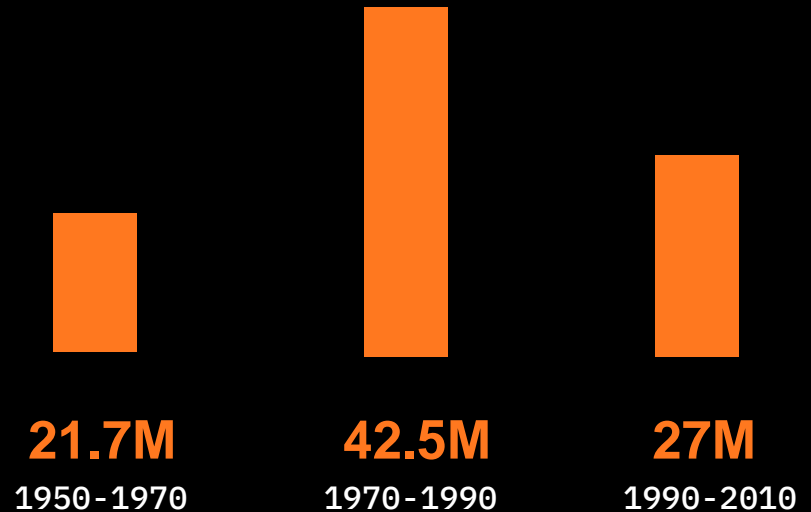| 1947	Births:	Birth Rate (per 1,000):
	3,817,000	26.6

Source: National Center for Health Statistics

THE RISING STORM

Higher Birth Rates And Women Entering Doubled Our Workforce Growth

College Enrollment jumped 100% from 1965 to 1975 and continued to soar for women

21.7M
1950-1970

42.5M
1970-1990

27M
1990-2010

Workforce increase by 20 year period

Source: Statista 2021

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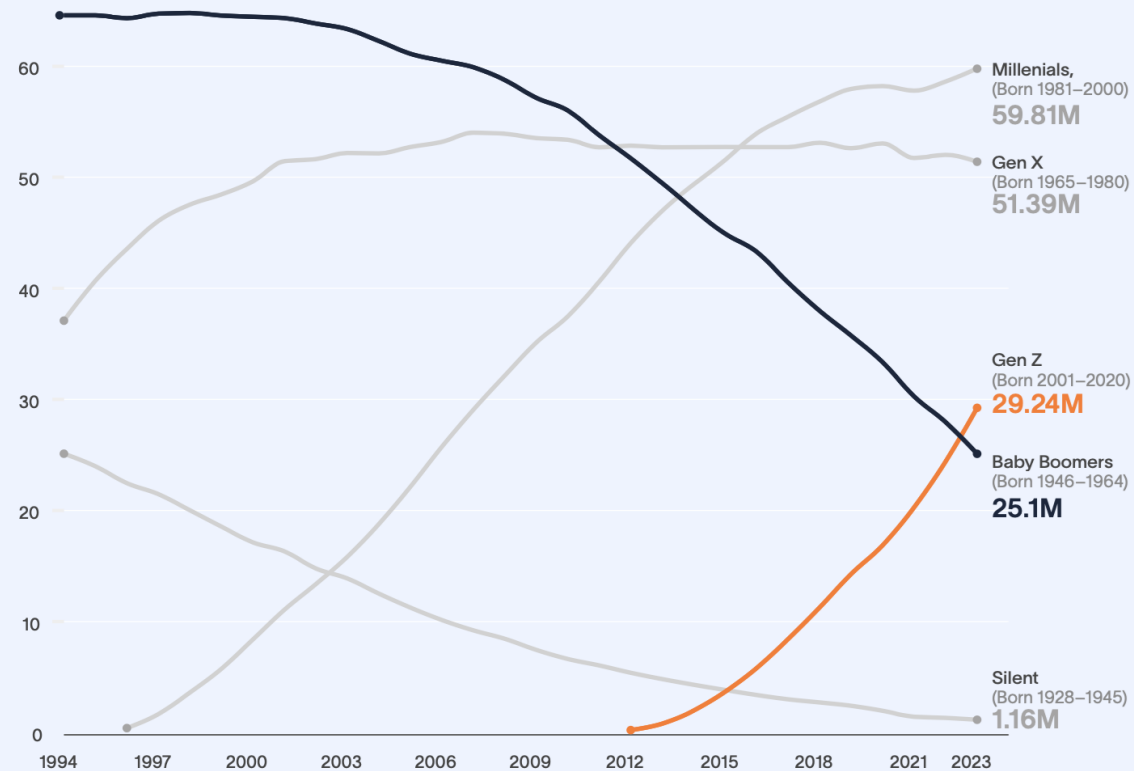
The Silver Tsunami Has Hit Shore

With Boomers heading out of the labor force, they are no longer working, 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

Millenials, (Born 1981–2000) 59.81M

Gen X (Born 1965–1980) 51.39M

Gen Z (Born 2001–2020) 29.24M

Baby Boomers (Born 1946–1964) 25.1M

Silent (Born 1928–1945) 1.16M

Source: US Census Bureau Current Population Survey; Lightcast Analysis
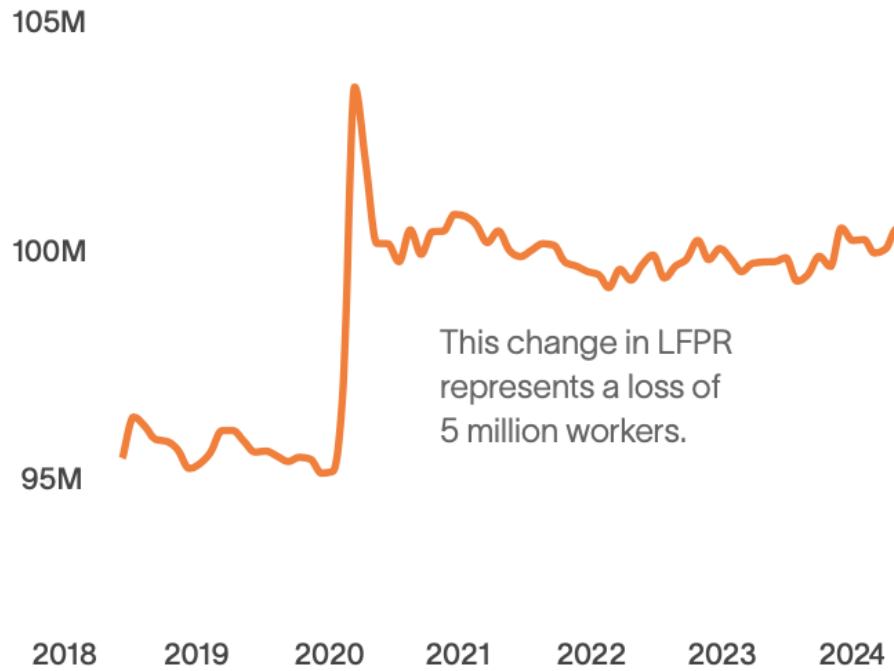
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WORKFORCE PRESENT

The Outer Bands:
Today's Labor Market

First outer band: We lost *5 Million People* Overnight

Total Adult Population Not in Labor Force

This change in LFPR represents a loss of 5 million workers.

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.

18M

Increase in *Consumers*

~5M

Increase in *Producers*

US Population
Growth, 2024–32

US Labor Force
Change, 2024–32

From *2024* to *2032*, US Population Growth Will *Outpace* Labor Force Growth by Nearly **4 to 1**.

THE RISING STORM

The dilemma:
The mismatch

The U.S. is Already Highly **Educated**

And more highly educated people have a greater labor force participation rate

9M
Less than a High School Diploma
48% Participation Rate

36M
High School Graduates
57% Participation Rate

36M
Associates Degree
63% Participation Rate

65M
Bachelors Degree and higher
73% Participation Rate

43M
with no college education

101M
with college education

THE RISING STORM
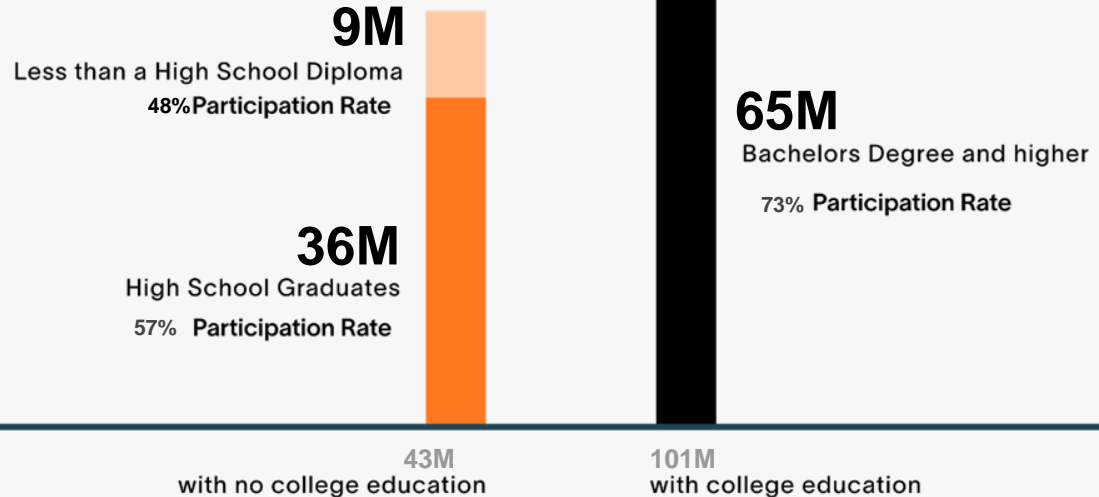
US Labor Force Growth is Misaligned with the Demand for Workers.

Change in US labor force, age 25+: 10/2019–10/2024

+6.4M Workers *with* a bachelor's degree or higher

-2.4M Workers *without* a bachelor's degree

+4M Net growth, all workers
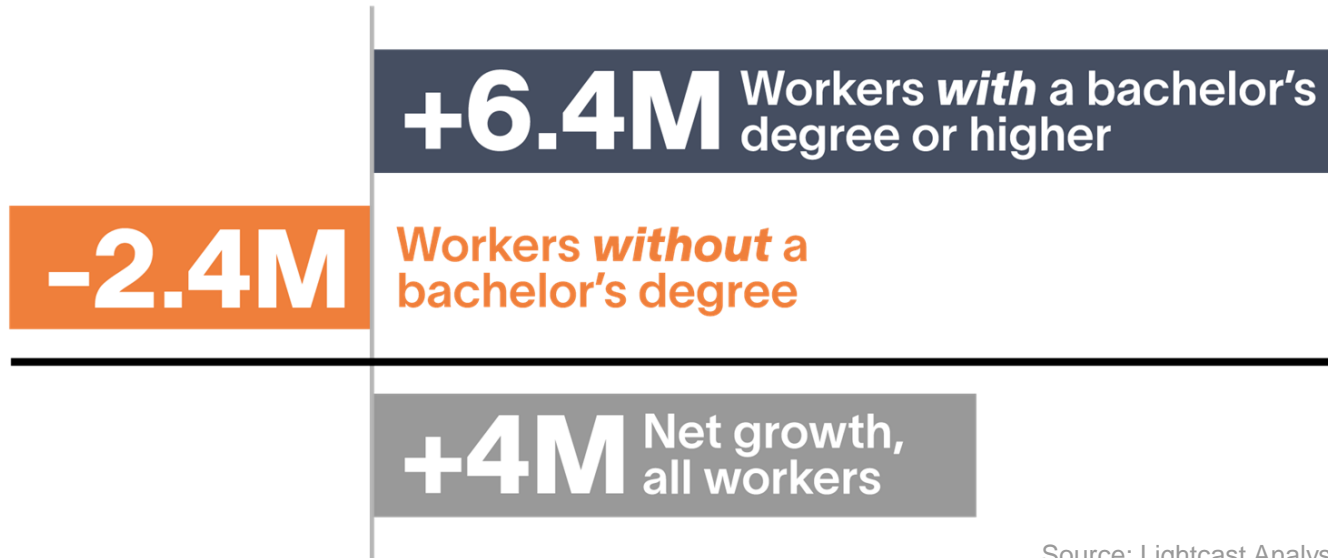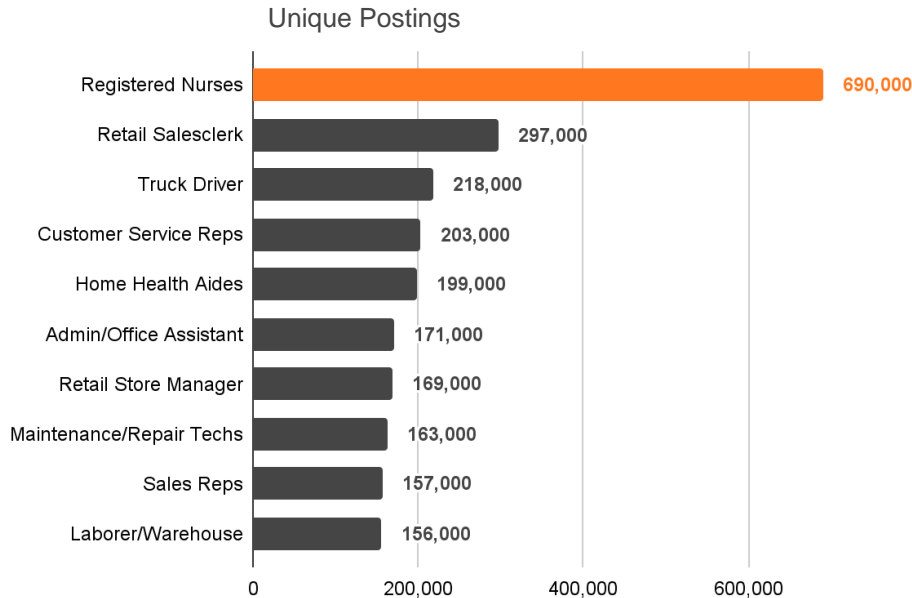
Source: Lightcast Analysis

THE RISING STORM

But…

Roughly **60%** of All Open Jobs **do *Not* Require a College Degree.**

Nearly All of Our Most Posted Jobs in The Country do *Not Need* a College Degree.

Unique Postings

Job	Postings
Registered Nurses	690,000
Retail Salesclerk	297,000
Truck Driver	218,000
Customer Service Reps	203,000
Home Health Aides	199,000
Admin/Office Assistant	171,000
Retail Store Manager	169,000
Maintenance/Repair Techs	163,000
Sales Reps	157,000
Laborer/Warehouse	156,000

And *Nursing* Accounted For Only 4% of Degrees From Top Programs

Top Programs   •••

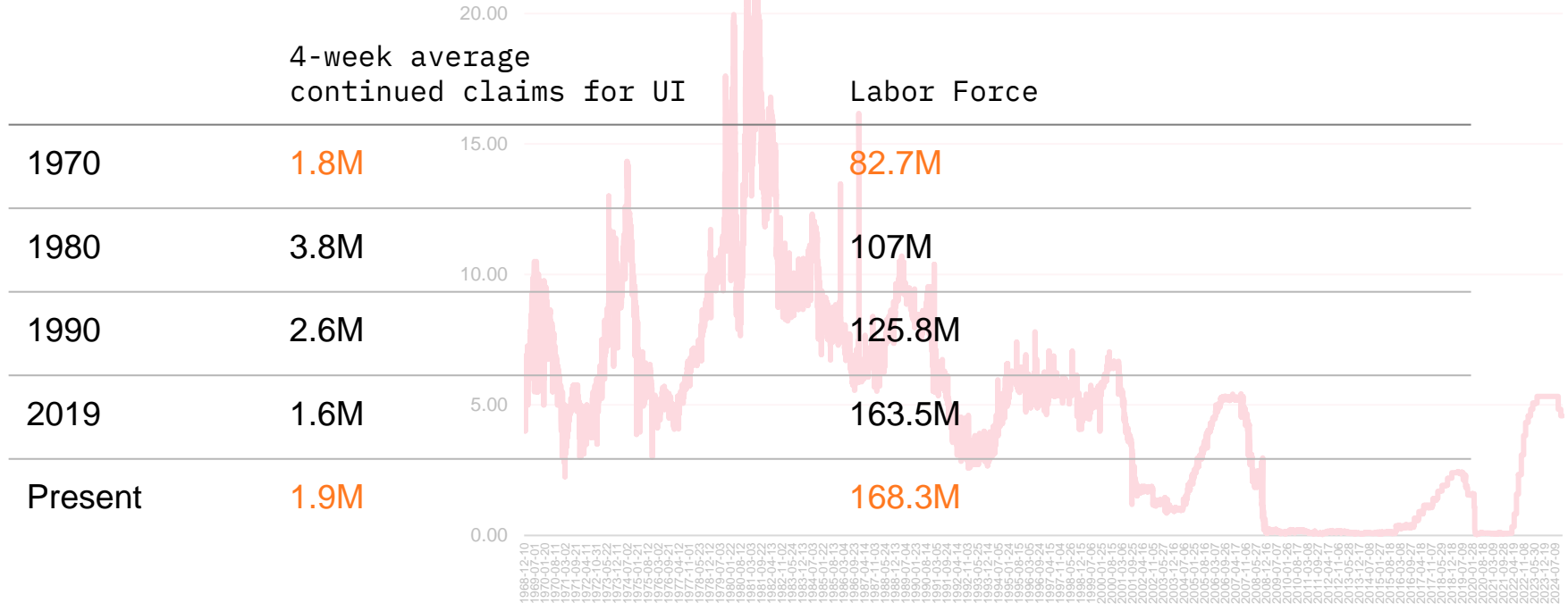| Program	Profiles	Percent
Business Administration, Management and Operations	1,933,244	17.54%
Computer Science	618,141	5.61%
Psychology, General	605,609	5.49%
Marketing	589,948	5.35%
Biology, General	488,892	4.44%
Accounting and Related Services	479,119	4.35%
Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing	451,903	4.10%
Finance and Financial Management Services	427,773	3.88%
Liberal Arts and Sciences, General Studies and Humanities	376,498	3.42%
Economics	371,080	3.37%

vs 17.5% Business degrees

HELP WANTED

Despite 22 months of rate increases, <u>there is no slack.</u> About the same number of people are collecting unemployment now vs 1970 although our labor force is 104% larger

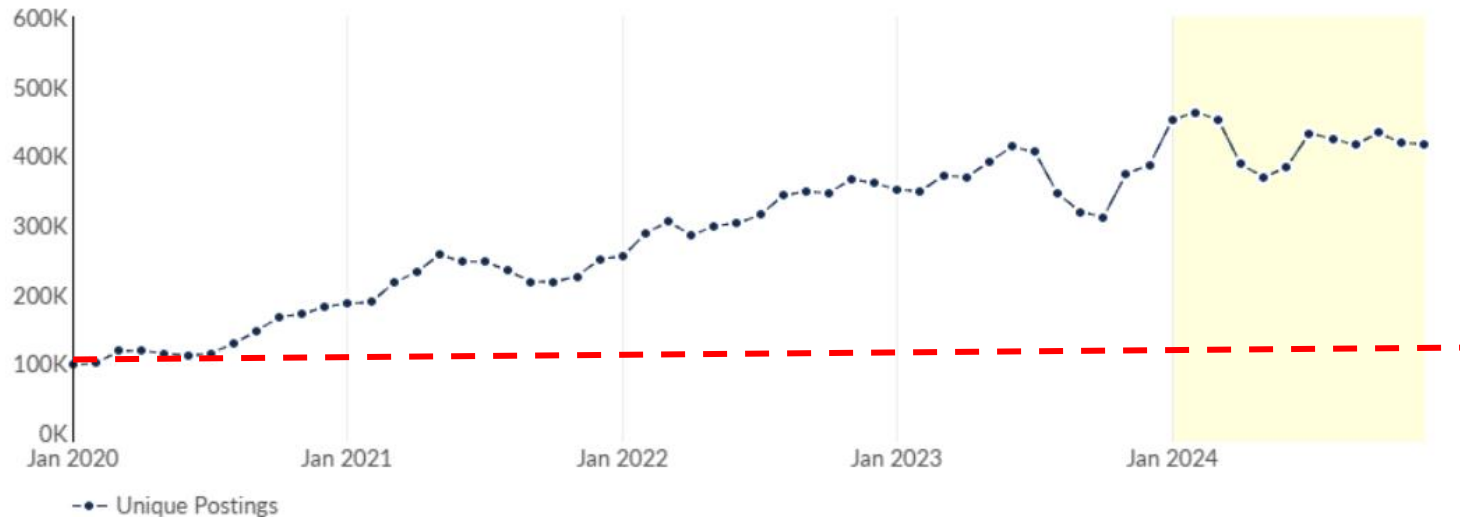|	4-week average continued claims for UI	Labor Force
1970	1.8M	82.7M
1980	3.8M	107M
1990	2.6M	125.8M
2019	1.6M	163.5M
Present	1.9M	168.3M

Total Healthcare job postings keep a steady upward rise

There are over 4 X the number of job postings now vs prior to the pandemic.

Unique Postings Trend

Jump to Job Posting Table

For healthcare, nurses are certainly in demand, but many non-degreed jobs are as well.

Occupation (SOC)	Total/Unique (Jan 2024 - Dec 2024)
Registered Nurses ⭐	5,653,789 / 1,197,817
Home Health and Personal Care Aides	955,702 / 344,137
Medical Assistants	344,101 / 127,087
Pharmacy Technicians	501,130 / 107,295
Nurse Practitioners ⭐	251,958 / 89,566
Medical Secretaries and Administrative Assistants	163,884 / 69,119
Pharmacists ⭐	197,498 / 64,576
Clinical Laboratory Technologists and Technicians	188,477 / 63,168
Occupational Therapists ⭐	123,178 / 46,417
Surgical Technologists	116,247 / 39,310

Needs are across the board in healthcare and whether the care happens in a facility or at home, people are needed, including hourly. But, that battleground is fierce.

Visuals are from Lightcast's Analyst tool

War for talent is on (especially for hourly)

Amazon increases hourly pay by $1.50, adds free Prime membership for thousands of workers

With this move, the e-commerce giant's average hourly pay tops $22, below the industry average and what many of its employees demand.

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

NEWS > COMPANY NEWS

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

Kroger bolsters work force with almost $800M

The grocery giant continues to invest in workers; $1.9 billion has been given to the backbone of operation since 2018

ACTIVISM / AUGUST 8, 2024

For Amazon Workers, $30 Is the New $15

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.

BI Business Insider

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

Walmart, Target, Kroger, and more major retailers go head-to-head in an escalating 'labor hoarding' war over hourly employees.

Mar 4, 2023

BLS Projects the US Labor Force Will Add Only 6.4M Workers By 2032.

=10K people

College-educated

But 3.8M of that growth is expected to be age 65+...
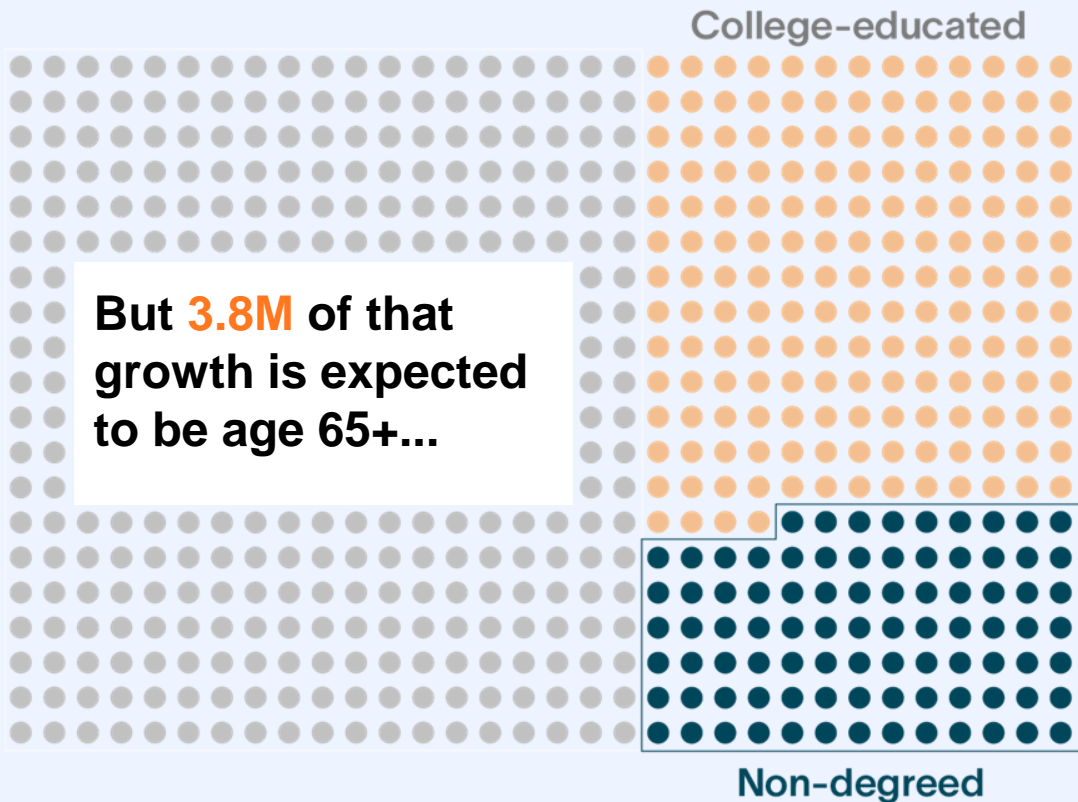
Non-degreed

The labor force of 16-24 year olds is actually expected to SHRINK by 1.1 million

Two thirds of those are likely to have 4-year degrees...

Which leaves 900K (90K/yr) non-degreed workers for the next 10 years.

THE RISING STORM

Those 90K Workers are Needed Across Critical Industries.

According to Lightcast data, there are roughly…

200,000 Job openings in construction and home improvement

350,000 Job openings in the food industry

300,000 Job openings in Community Service

Add in roughly 70,000 job openings in healthcare that do not require a medical degree or certification.

THE RISING STORM

Is it Realistic to Anticipate The Retirement-Age Population to Carry The Majority of Growth in The Labor Force?

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

More people **exiting** the labor force than **entering it.**
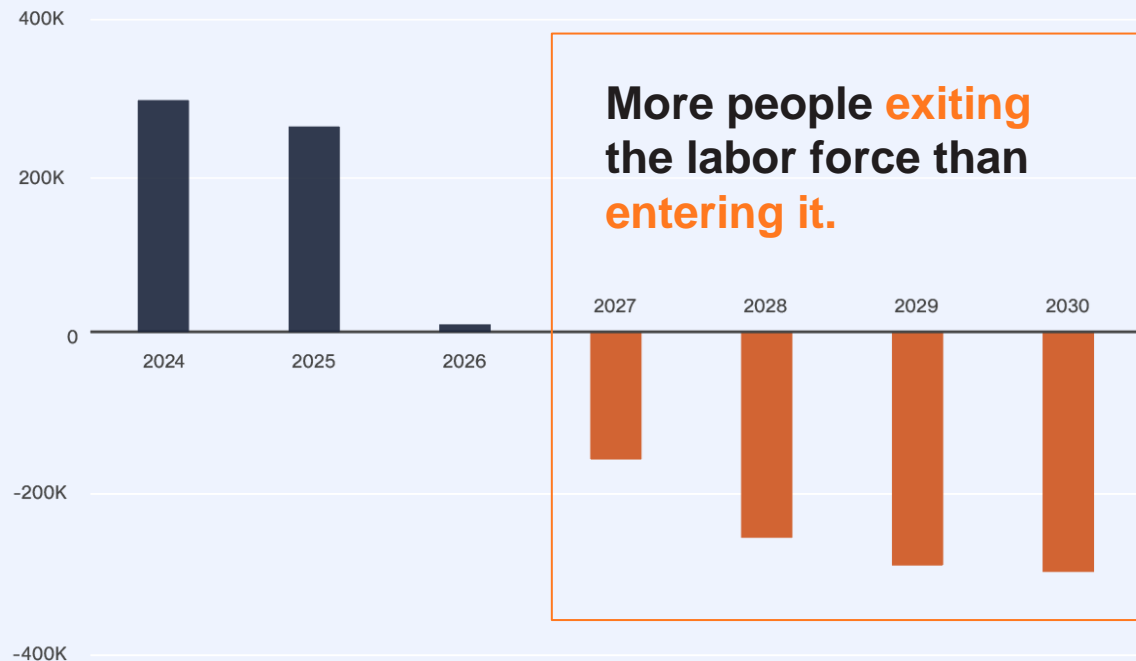
Graph represents population change if 65 year olds (workforce exits) are subtracted from 16 year olds (workforce entrants).

Source: Census.gov, Lightcast Analysis

So, Who's Gonna Do This Work?

There are 3 ways of getting work done here.

Native born population?
Not alone.

Immigration

Automation

Who's Gonna Do This Work?

IMMIGRANTS?

Immigration is The One Source of Talent That is Keeping The US Labor Market Afloat.

Since late 2019...

Over 100%

of the US labor force
was **foreign-born**.

In that time, the **US-born** labor force declined.

And US Dependence on Immigration is Only Growing.

Share of Workers That Are Foreign Born, By Industry (2010 and 2022)

2010   2022

Industry	Value
Construction	29.2%
Mining	12.9%
Transportation and Utilities	20.4%
Professional and Business Services	21.3%
Financial Activities	13.9%
Information	14.5%
Public Administration	9.2%
Educational and Health Services	14.3%
Other Services	22.8%
Wholesale and Retail Trade	15.2%
Agriculture, Forestry, Fishing, and Hunting	20.5%
Manufacturing	19.1%
Leisure and Hospitality	20.5%

10.0%   15.0%   20.0%   25.0%   30.0%

Do these look familiar?

Immigrants come from different places

Different countries, different specialties.

Registered Nurses

Country	#	% of all immigrants	% of RNs
Philippines	142,800	29.3%	4.5%
India	32,400	6.7%	1.0%
Nigeria	21,200	4.4%	0.7%

Physicians and Surgeons

Country	#	% of all immigrants	% of RNs
India	56,500	21.3%	6.1%
China	13,600	5.3%	1.5%
Pakistan	12,600	4.9%	1.4%

Other countries for nurses:
Mexico (~5%)
Jamaica (~5%)
Haiti (4%)

Home Health Aides

Country	#	% of all immigrants	% of RNs
Mexico	133,300	15.5%	3.9%
Philippines	87,600	10.2%	2.5%
Jamaica	59,300	6.9%	1.7%

But What if it *Can't?*

Birth rates have been falling and **labor shortages growing around the globe**— including in countries the US relies on for its workforce.

Registered Nurses in the US

Country	#	% of all immigrants	% of RNs
Philippines	142,800	29.3%	4.5%
India	32,400	6.7%	1.0%
Nigeria	21,200	4.4%	0.7%

Mexico has a much lower unemployment rate than the U.S.

Study: 75% of Mexico businesses say they struggle to find workers

Cat Rainsford   July 14, 2023

The Philippines currently has a shortage of 100,000 nurses. Starting in 2021, they started placing strict limits on those who want to emigrate. There are 348,000 Filipinos working in Healthcare in the U.S. and 2.16M Filipinos working abroad in all professions from a country with a low 4% unemployment rate.

Who's Gonna Do This Work?

Artificial Intelligence?

Non-Human Augmentation (AI) is Years Away From Tangible Help in Sectors That Need it Most.

Are these the occupations in the direct path of the storm?
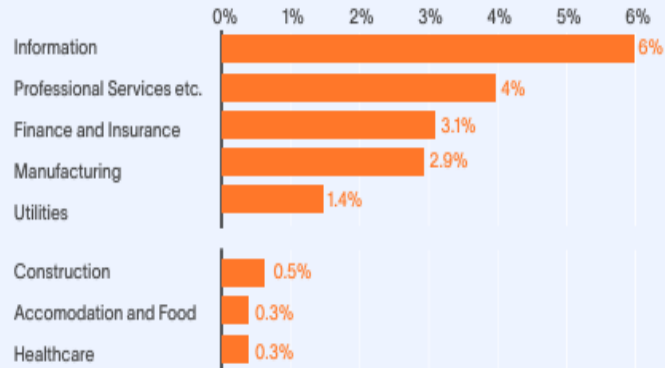
Occupations most exposed to AI and LLMs

Exposure to all AI applications

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

Exposure to large language modelling

1. Telephone salespersons
2. Solicitors
3. Psychologists
4. Further education teaching professionals
5. Market and street traders and assistants

% of postings needing AI skills

Sector	%
Information	6%
Professional Services etc.	4%
Finance and Insurance	3.1%
Manufacturing	2.9%
Utilities	1.4%
Construction	0.5%
Accomodation and Food	0.3%
Healthcare	0.3%

# Healthcare roles most likely to be replaced or heavily augmented by AI

- Medical Transcriptionists.
- Pharmacy Technicians.
- Medical Billing and Coding Specialists.
- Radiologic Technologists.
- Phlebotomists.
- Data Entry Clerks in Healthcare.
- Healthcare Administrators (for specific tasks)
- Inventory Managers in Healthcare.

# AI should NOT be left alone when interfacing with clients.

AI's utility can go from outright replacement to assistance. For healthcare companies, finding out technology's role needs to have already happened or be happening now.

Average US Customer Experience Index Scores
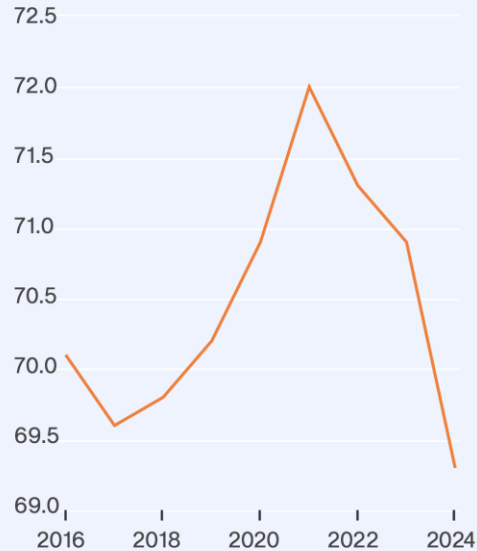
Source: Forrester

Survey: "When Will AI Improve How Customers Engage With Business?"

	Customers	Business Leaders
5 Years	23%	11%
1 Years	73%	38%
Now	16%	49%
Never	33%	2%
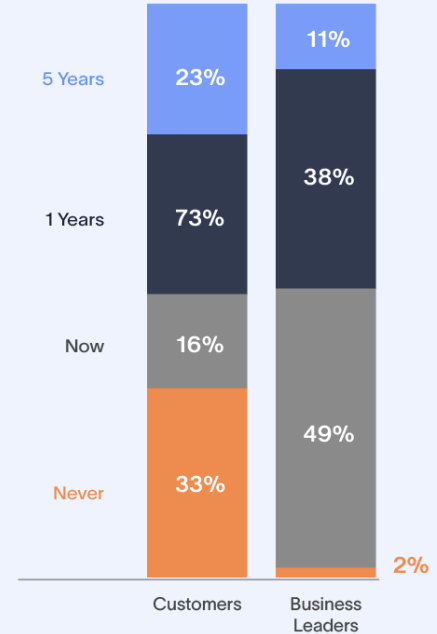
Source: LivePerson

Artificial intelligence

"People working alongside artificial intelligence, rather than being replaced by it" - CNBC

National Nurses United: "*As nurses, we know that the hands-on work of caring for other people cannot and should not ever be automated. The work of registered nurses, and of other health care workers, must be provided in person. No artificial intelligence system will ever replace the human expertise and clinical judgment essential to providing the safe, effective, and equitable nursing care that all patients deserve*".

Artificial intelligence & Robotics

Occupations in the bottom 10% include roles in healthcare, construction, and production
May 2023 - May 2024

Percentile for AI demand

| Occupation	Value
Landscaping and Gardening	10
Non-Patient Care Support	10
Mental and Behavioral Counseling	9
Construction Workers	9
Advanced Healthcare Therapists	8
Nursing Management and Training	7
Therapy Support	7
Food and Beverage Service and Support	6
Food Service Managers	5
Delivery Drivers and Messengers	5
Caregiving	4
Healthcare Patient Support	4
Housekeeping and Cleaning	3
Food and Beverage Preparation	2
Alternative Medicine	2
Registered / Practical Nursing	1
Clothing and Fabric Workers	1

Lightcast % of postings mentioning AI related skills.

Healthcare related jobs represent nearly half of the bottom 17% of jobs that are using AI in their job descriptions.

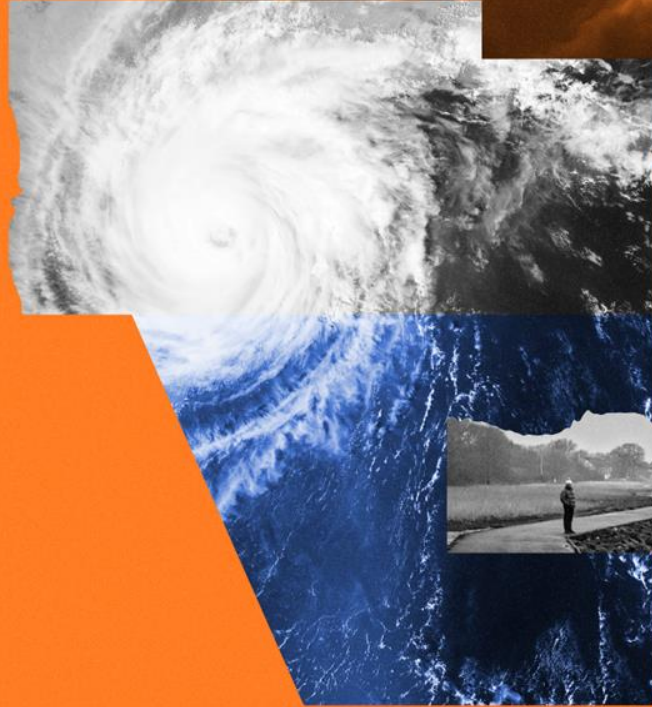# Lessons From Japan

Age distribution of Japan's population
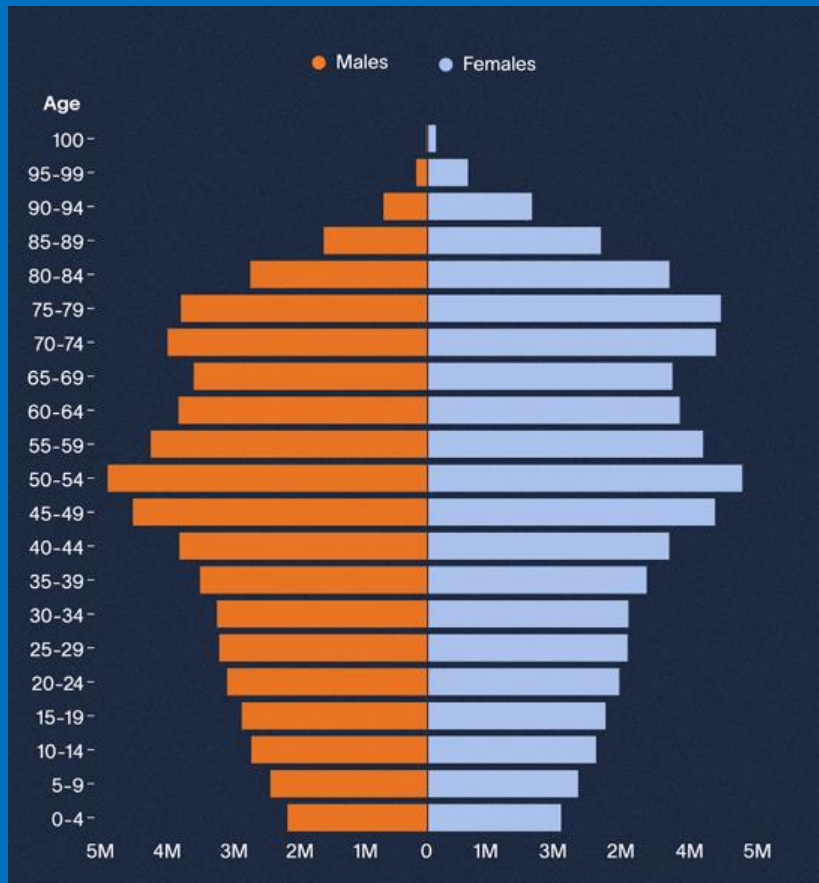
Artificial Intelligence, Older Workers, And Young College Grads Are All *Coming* For The *Same* Jobs.

This Lopsided Workforce Will Leave *Millions* of Important Jobs *Unfilled*.

WHAT WE CAN DO

Storm Preparedness

Revisiting The Boomer Mindset: Employers

OLD: "When I'm hiring, I know I can expect plenty of applicants, so I can limit the field by creating detailed job descriptions"

NEW: I need to see as many applicants as possible. My job descriptions need to be general covering the basics only.

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

NEW: It is hard enough finding good workers, don't add to that trying to replace the workers you already had that were experienced and solid at their jobs.

OLD: "It's a hassle to sort through too many applicants, so I will screen out as many as possible before the interview process."

NEW: It is all about opening the funnel as wide as possible. No one can be seen as not having the skills for the job, just at different points away from what is needed. Training and upskilling are the new norm.

OLD: "We can afford to lay people off during slow cycles at the company."

NEW: Headcount and demand management need to be emphasized going forward. Managers need to learn skills on how to best handle peaks in troughs in business not requiring flexing labor.
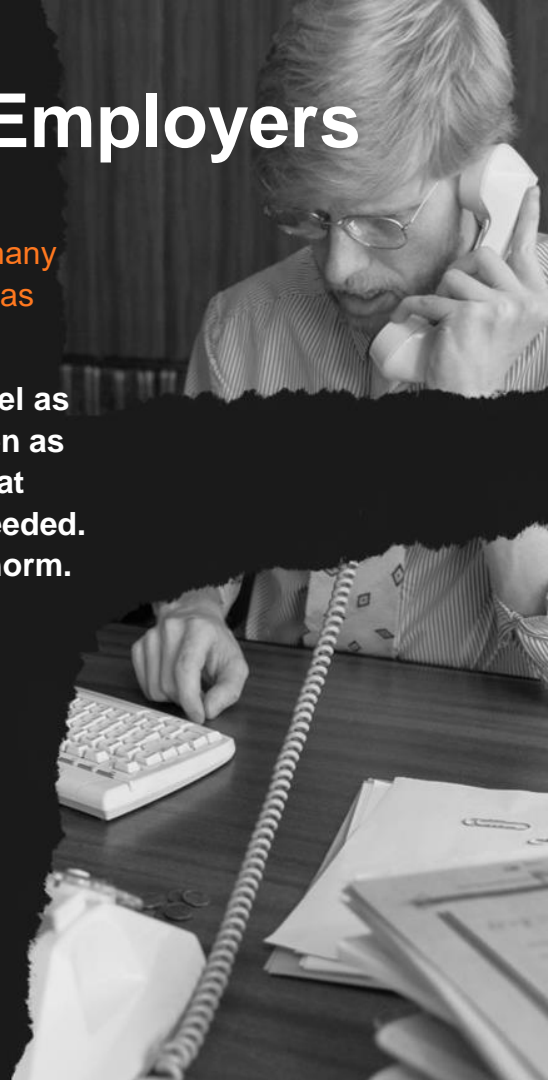
How Work Can Get Done

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.

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.

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.

Category

1

- IT and Tech
- Finance and Insurance
- Entertainment

Category

2

- Education

Category

3

- Durable Manufacturing
- Retail and Trade

Category

4

- Food and Hospitality
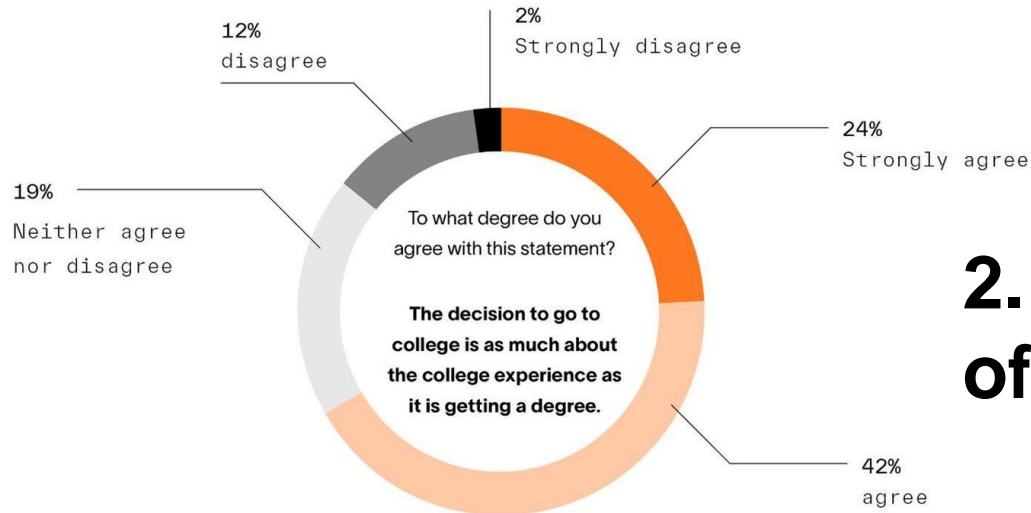- Transportation and Logistics
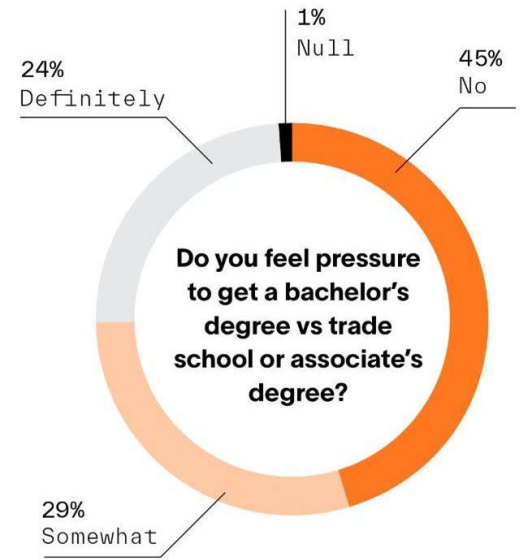- Utilities

Category

5

- Healthcare
- Construction

The more avenues you have to getting work done, the less severe the storm's impact

Why go to college?

1. Societal, peer, and family pressure to get a college degree

2. The experience of college

24% Definitely

1% Null

45% No

Do you feel pressure to get a bachelor's degree vs trade school or associate's degree?

29% Somewhat

TALLO/LIGHTCAST STUDENT SURVEY, 2022

12% disagree

2% Strongly disagree

24% Strongly agree

19% Neither agree nor disagree

To what degree do you agree with this statement?

The decision to go to college is as much about the college experience as it is getting a degree.

42% agree

TALLO/LIGHTCAST STUDENT SURVEY, 2022

Getting a labor force: What do Gen Zs want in a job?

Better work/life balance. "More than half (56%) of Gen Z said they would leave their job if it interfered with their personal lives"

"I want to **make a difference** before I want to make money,"

"42% of Gen Zers would rather be at a company that gives them a **sense of purpose** than one that pays more." – Lever report

"62% of Gen Z plans to start or possibly **start their own business** in the future."

"I want to **know what is expected** of me at work"

"The **mission or purpose** of my company makes me feel my job is important"

Business Insider, May 8th, 2022, firstup.io

Top reasons nurses left their jobs

Planned Retirement
30%

Burnout
1 in 4

Insufficient Staffing
21%

Poor work/life balance

Top reasons nurses stay in their jobs

Doing meaningful work
82%

Positive Interactions
69%

Having Caring and Trusting Teammates
69%

Many jobs **suffer from a marketing problem**

Value to society

Few are more equipped to give back to their community, help disadvantaged populations, travel the world and contribute to charitable agencies like those in healthcare

Dealing with "Self-Disqualification"

Many healthcare companies are willing to train or make training available for certain healthcare roles such as respitoray therapists, nursing assistants, etc… but their postings are not positioned to catch the attention of the general job seeker.

What is involved in Local Workforce Development?

1. Mentoring/training people of all backgrounds, either working for you or not, and adding to them the skill sets that you need.
2. Finding existing workers in markets that have the skills you need.
3. Partnering with schools from Universities to Middle Schools to add skills to your potential labor pool.
4. Messaging/Marketing to draw people to your company's contributions to the economy.
5. Creating social networks for your workers, encouraging them to "grow together".

Job audits: Are there bottlenecks, single points of failure?

Employ people of all backgrounds as they are going through the degree process.

Training for certain roles, finding training partners and then getting that message to people from all backgrounds.

Stay informed on asylum seekers and refugees and when they become work eligible.

SCAN

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