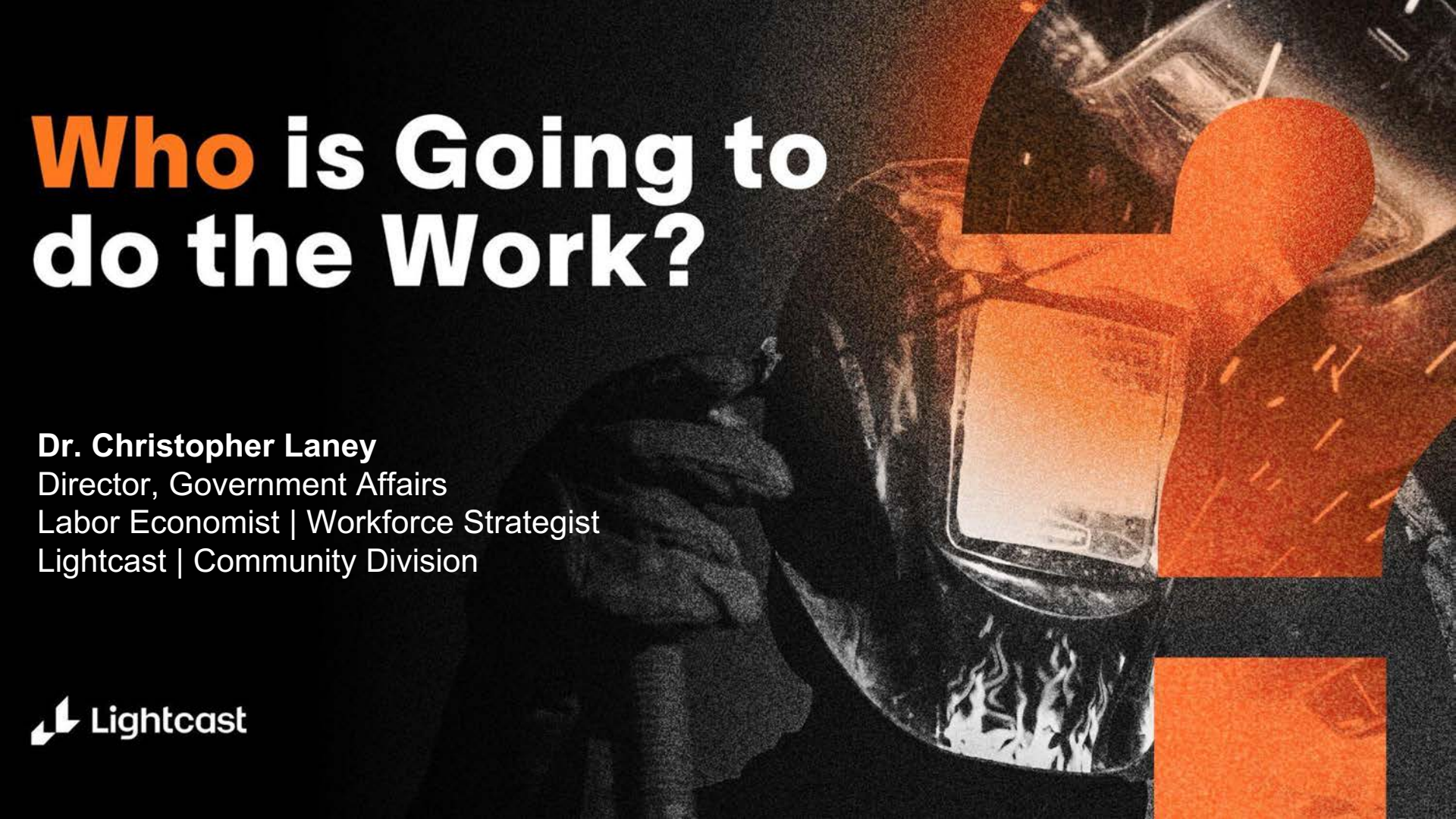


Who is Going to do the Work?



Dr. Christopher Laney

Director, Government Affairs

Labor Economist | Workforce Strategist

Lightcast | Community Division

Agenda

1. Background

2. Current Labor Crisis

3. Labor Pools

4. Who is going to do the work?

5. Factors affecting young people choosing careers

6. Employer/Society Solutions



Background

In the Demographic Drought: Bridging the Gap, we showed that while there are not enough workers for **all** levels of jobs, the larger issue was the looming lack of people to do the very jobs that keep our country running.

To this end, in the Summer of 2022, Tallo and Lightcast surveyed **1,500 high school and college-age students** and found that while they are more aware of and do not overwhelmingly harbor negative feelings for the trades or community colleges, they still generally **plan to go the 4-year route** and pursue careers more commonly associated with a bachelor's degree.





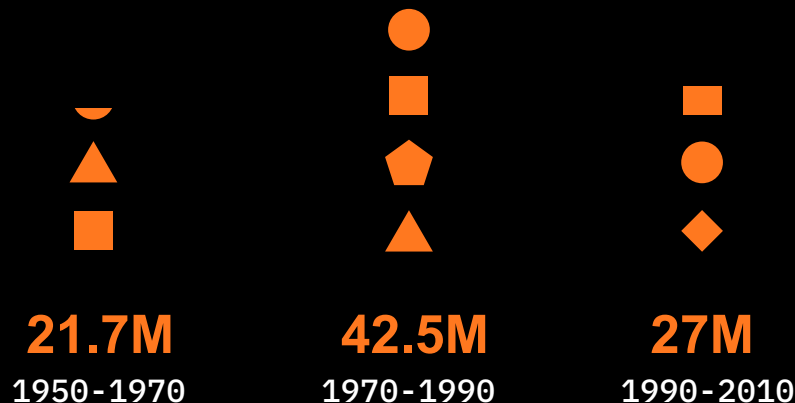
The Demographic Effect

How we got to our destination will
forever affect our future



Higher birth rates and women entering doubled our workforce

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



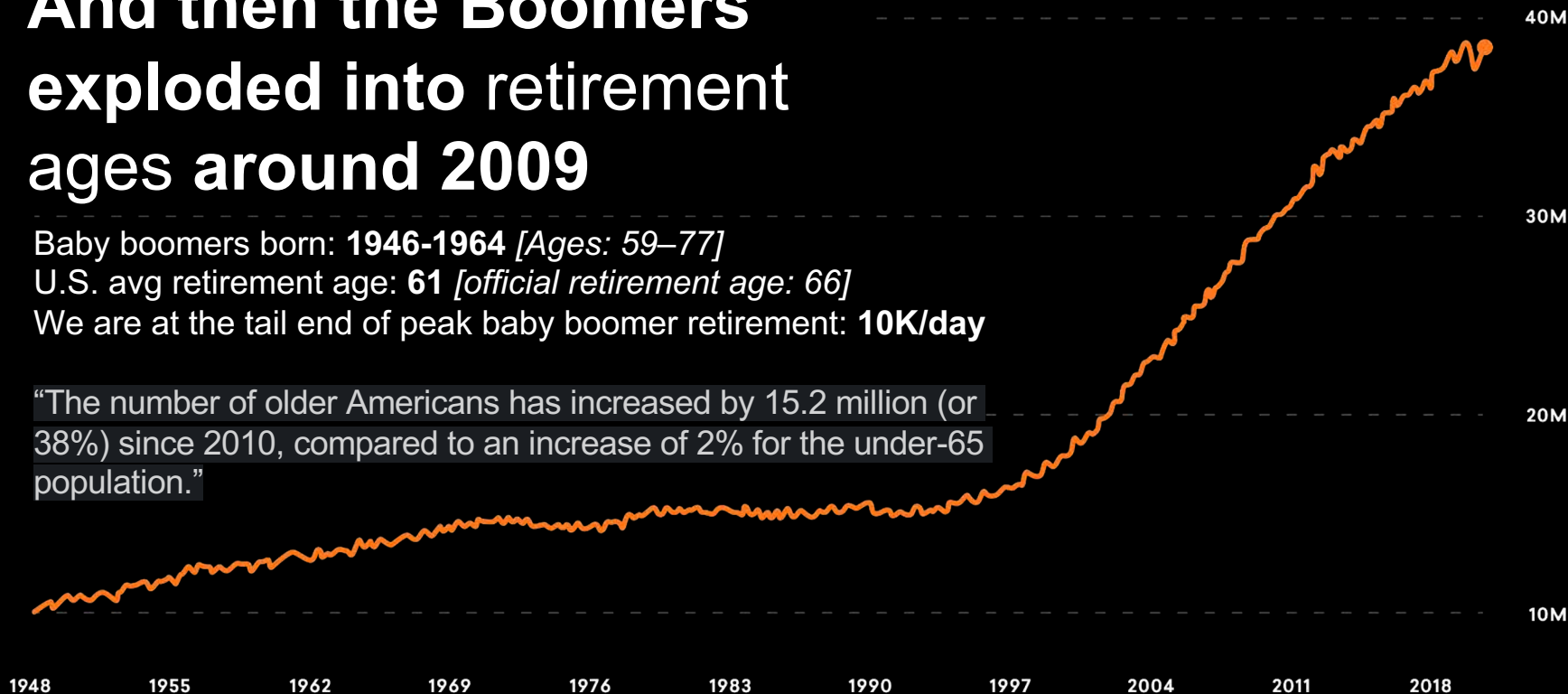
And then the Boomers exploded into retirement ages around 2009

Baby boomers born: **1946-1964** [Ages: 59–77]

U.S. avg retirement age: **61** [official retirement age: 66]

We are at the tail end of peak baby boomer retirement: **10K/day**

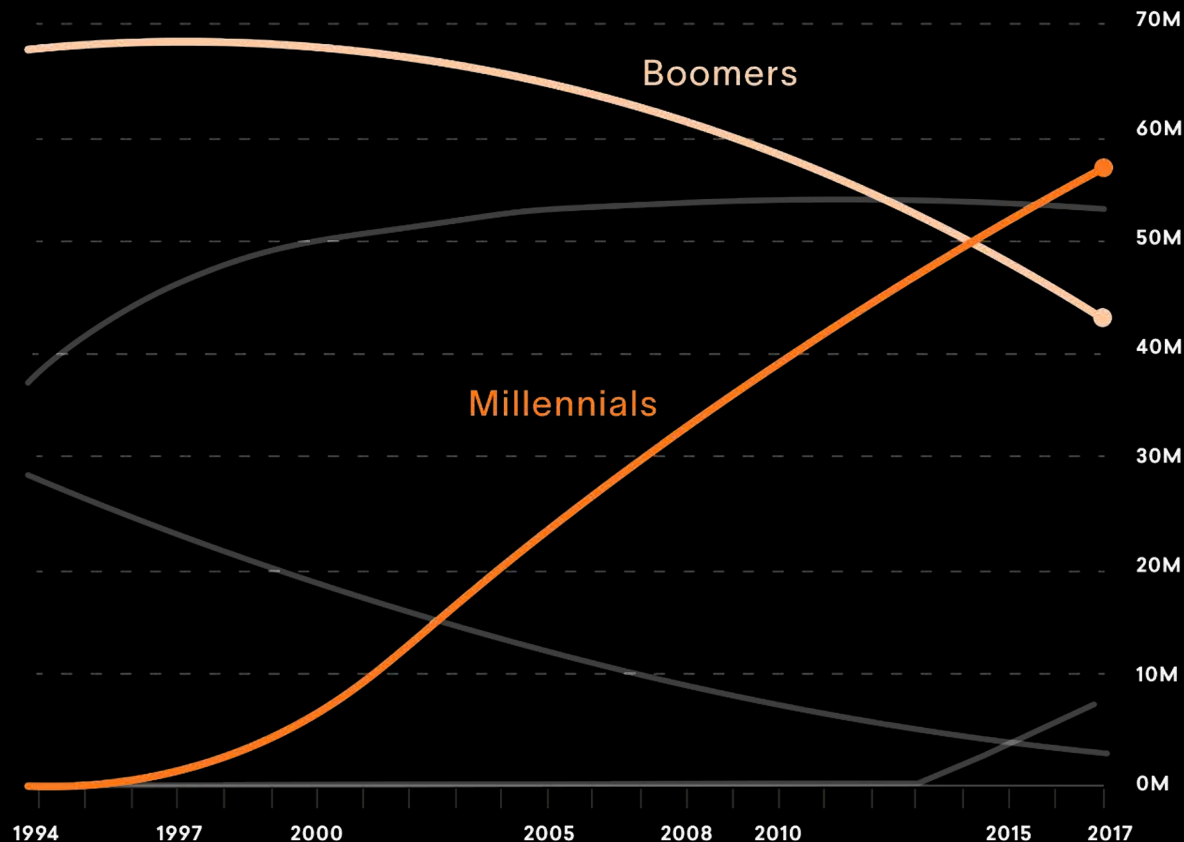
“The number of older Americans has increased by 15.2 million (or 38%) since 2010, compared to an increase of 2% for the under-65 population.”



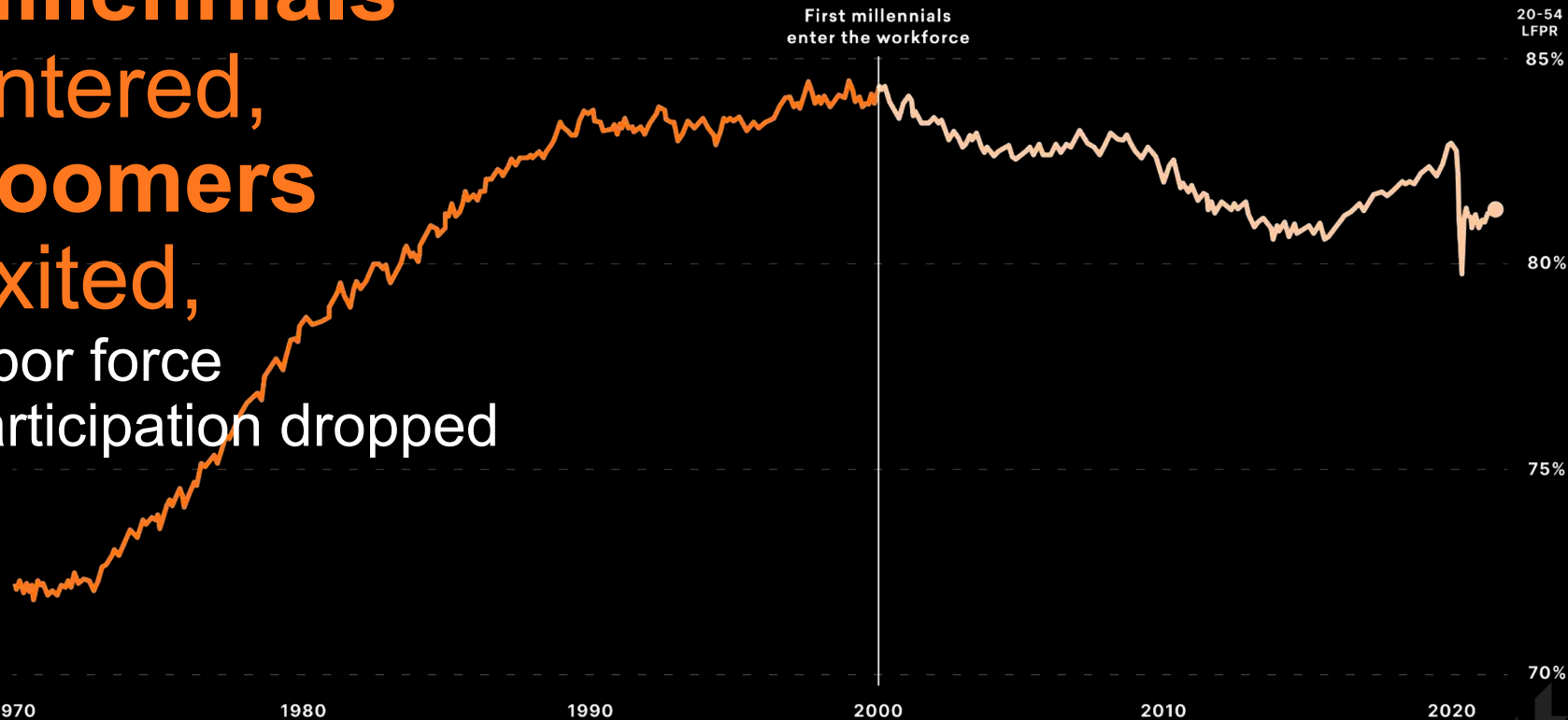
In 2016,

Millennials became the largest generation in the labor force

Note: Labor force includes those ages 16 and older who are working or looking for work. Annual averages shown.

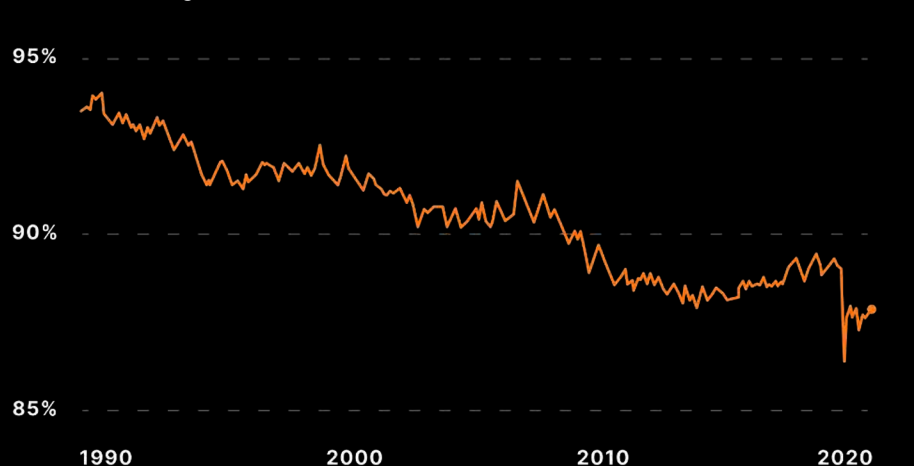


**Millennials
entered,
boomers
exited,
labor force
participation dropped**

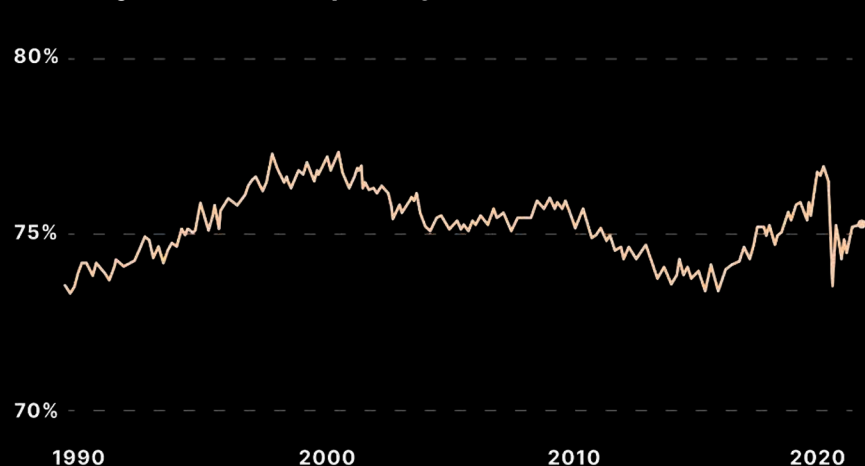


The number of working prime age men continued to plunge

Prime age male LFPR **down over 5%** from 1990 – Jan 2020



Prime age female LFPR **up nearly 3%** from 1990 – Jan 2020

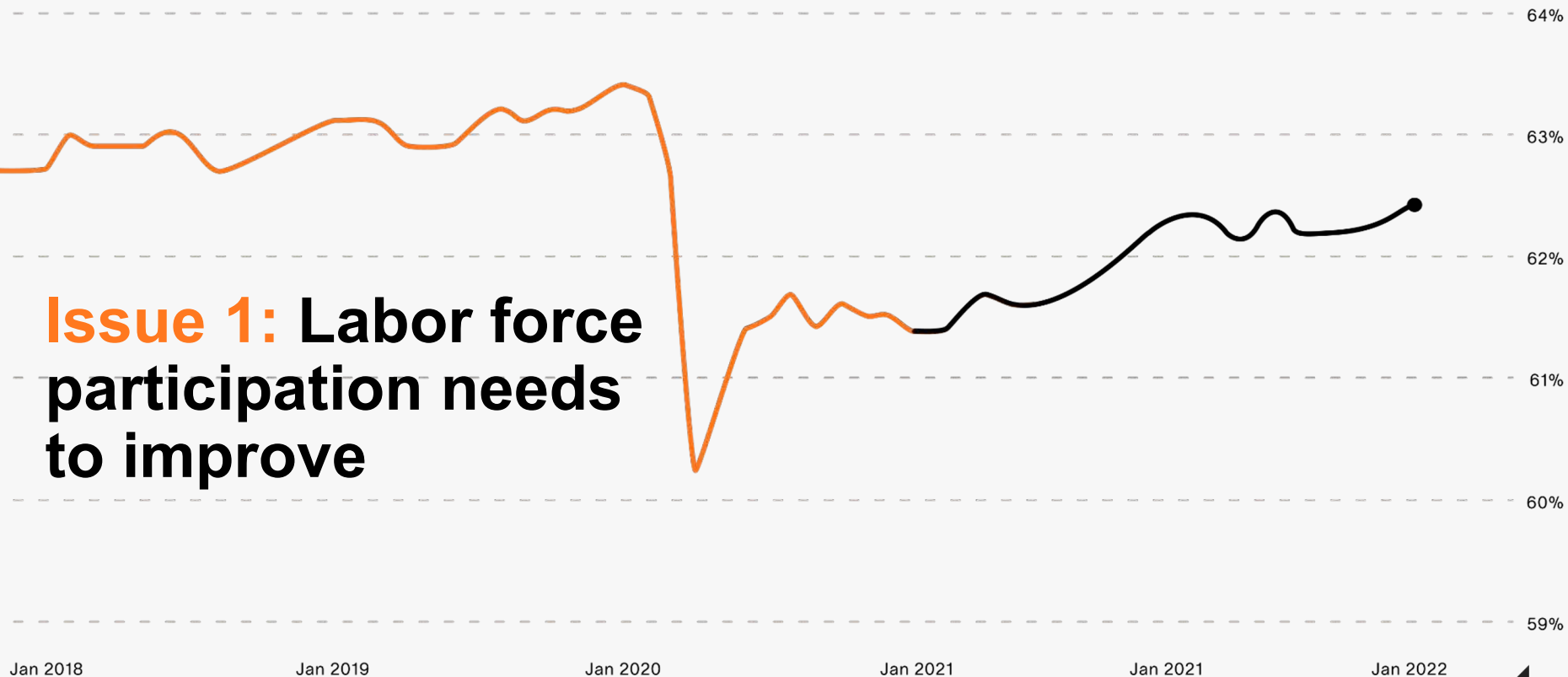


An aerial photograph of a city street with several people walking. The image is overlaid with a dark-to-orange gradient. The text "Current labor crisis" is centered in white.

Current labor crisis



Issue 1: Labor force participation needs to improve



The 55+ cohort left the labor force at a much higher rate than the others, and millions may stay out

About three million workforce dropouts say they don't plan to return to pre-Covid activities

- [wfhresearch.com](https://www.wfhresearch.com), [WSJ](https://www.wsj.com), Apr 16, 2022

Age	Labor Force Change	Excess Not in the Labor Force
16-24	809	813
25-54	957	810
55+	-390	3,646
Total	360	5,269

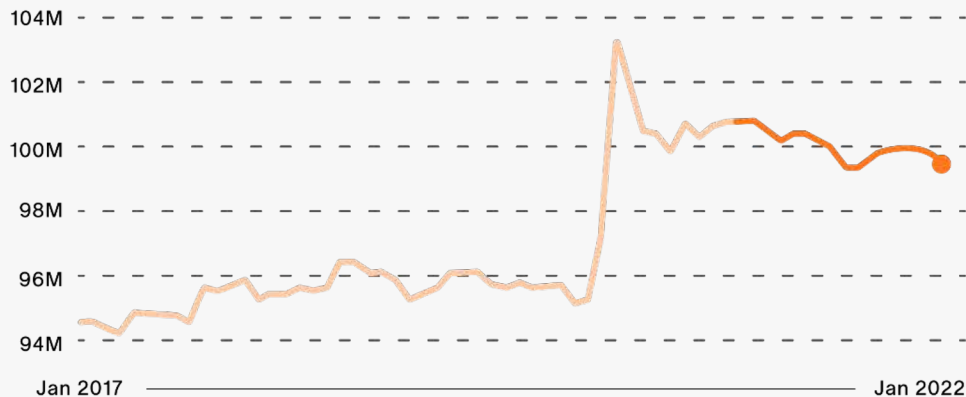
Compared to Feb 2020*

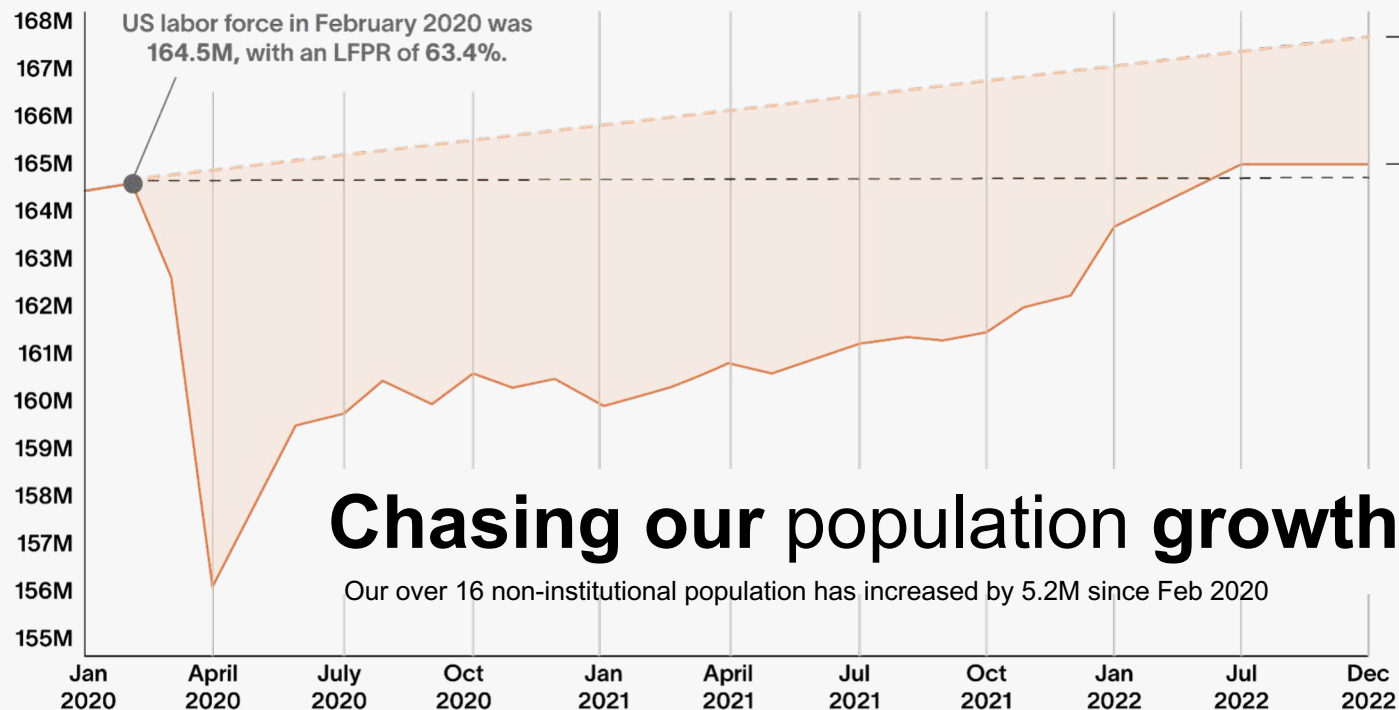
All data in k's

Source: Lightcast analysis of US Census Current Population Survey and Bureau of Labor Statistics data

*16-24 not in labor force compared to same month 2019 due to extreme seasonality

Not in the Labor Force





We need **2.7M more people** in the labor force to recover

In **Aug '22** the labor force finally made it back to its level in Feb 2020

The US has seen minimal labor force growth since late 2019.

Source: BLS, Current Population Survey, Seasonally Adjusted: February 2022

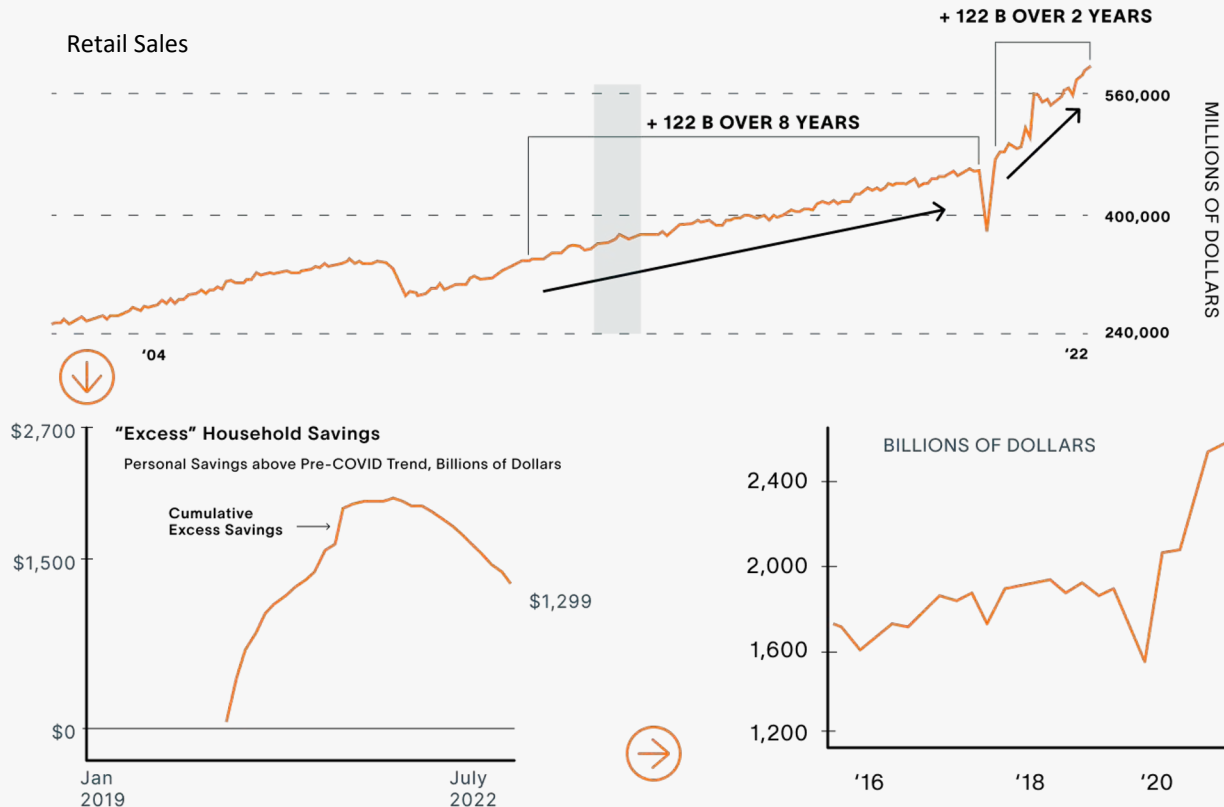


The Demand Problem

Consumers spent in 1 to 2 years what they normally spend in 4-8 years

Some of that Income combined with money not spent on services and went towards durable goods

(in 2021 alone we spent as much as we would have spent over the next 4 years combined)

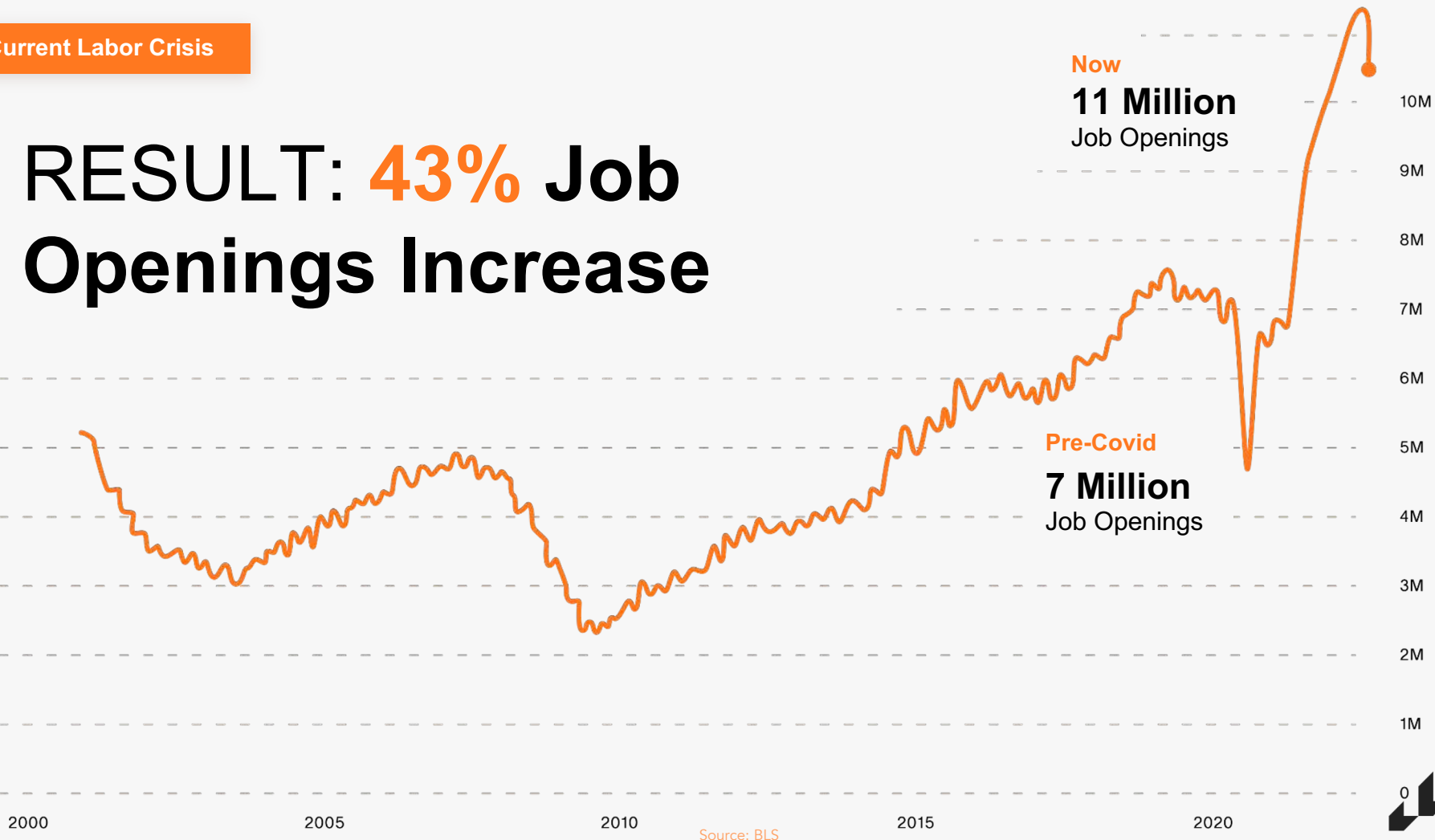


Those monies went to corporate profits.
(record 40% gain in 2 years)

Source: Board of Governors of the Federal Reserve System, BEA

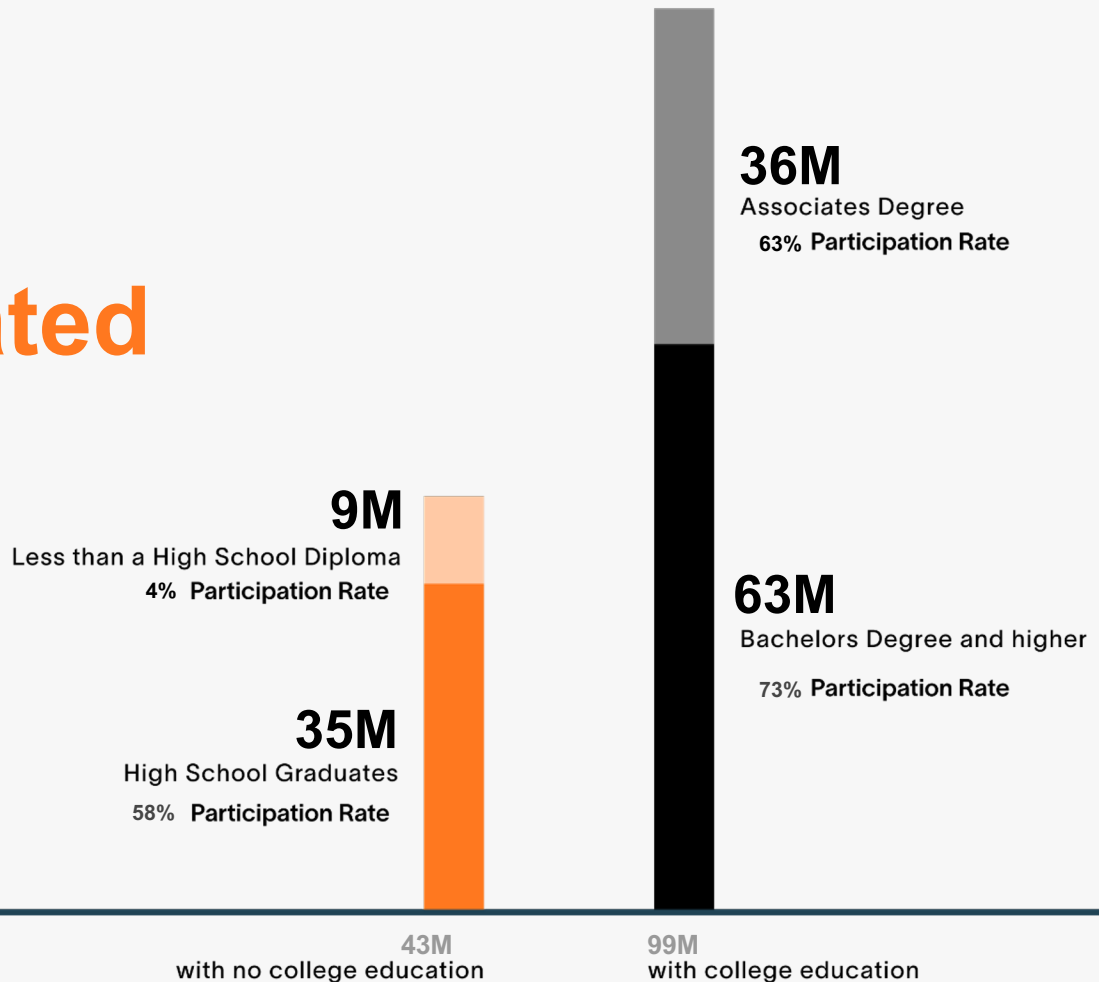


RESULT: 43% Job Openings Increase



The U.S. is highly educated

And more educated people have a higher labor force participation rate



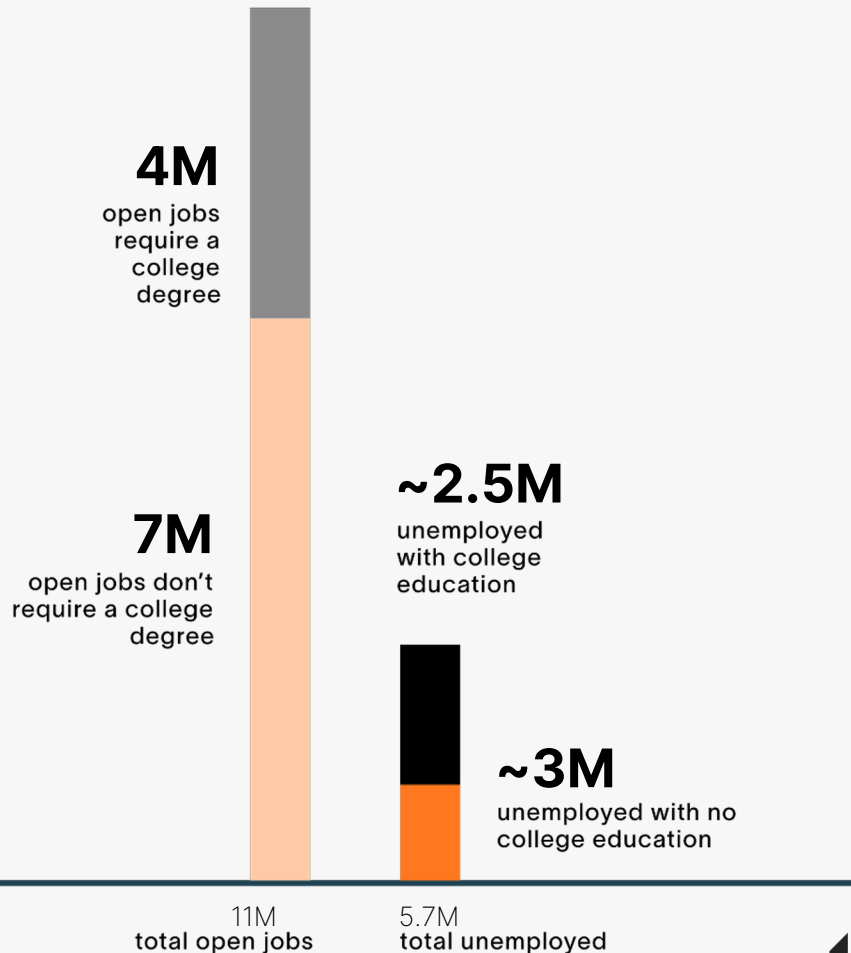
Roughly 7M of the 11M open jobs in America

need to be filled by people **without a college degree**

37% of people out of the labor force are those with a high school diploma.

Only **12%** have a bachelors.

Unemployment rates for most college degreed jobs are low but not close to record low levels.



3x

In 2015, we had three times as many unemployed lower skilled job workers per job opening than we have now.



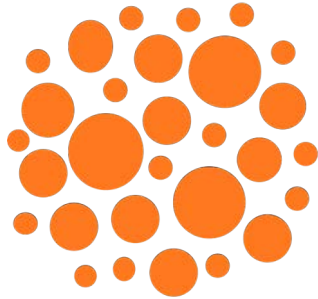
U.S. Labor Pools

“The United States could also be facing a deficit of more than 6 million workers”

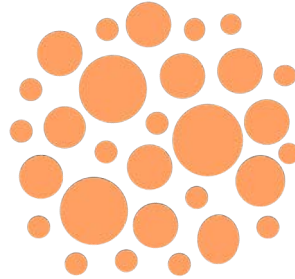
(by 2030) - Korn Ferry



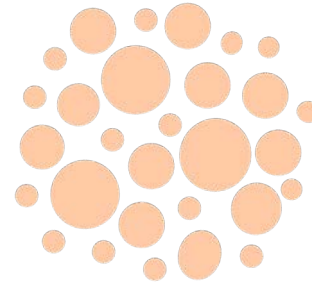
The U.S. has effectively 3 labor pools



Native
Born



Legal
Immigrants



Undocumented
Workers



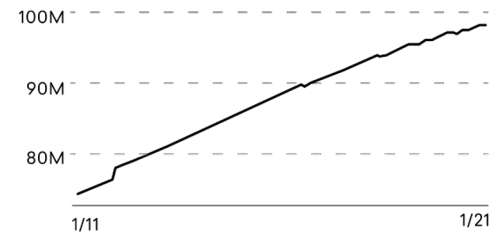
Native born workers



Younger working populations are drying up.

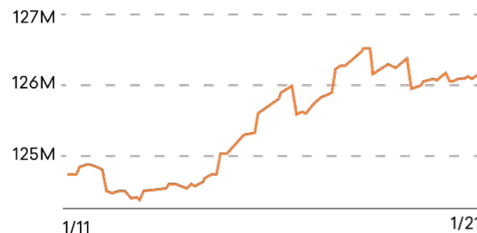
Many sub \$20/hr jobs are filled by people in their early 20s. By 2034, **older adults will outnumber children for the first time in U.S. history**

55+ Imminent retirees

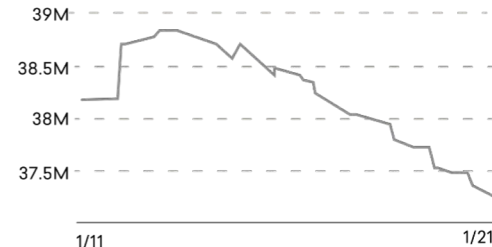


Civilian noninstitutional population

25-54 prime-age workforce



16-24 entering workforce

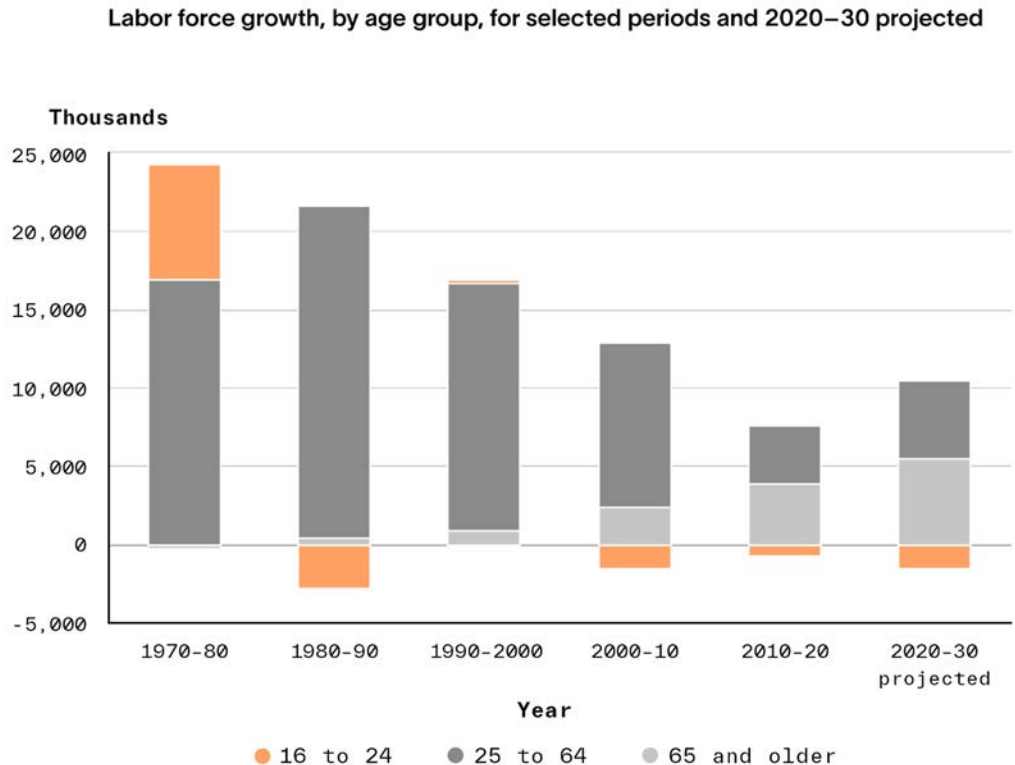


Source: Bureau of Labor Statistics



Most of our labor force growth to 2030 will be over 65 but the vast majority of those people will retire

According to Gallup as of '22, the average person says they will retire at 66, but, they actually retire at 61.



U.S. Bureau of Labor Statistics

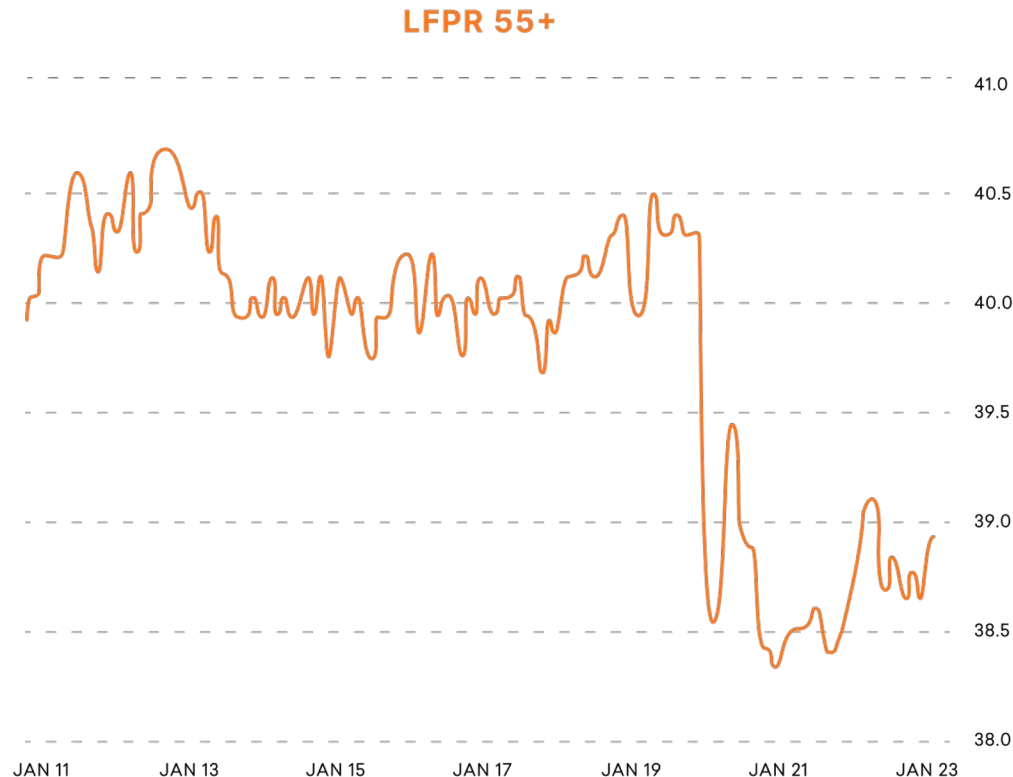


Labor force participation (55+) not recovering

Study by the St. Louis Fed:

Large majority of excess retirements from the **65–74**-year-old group.

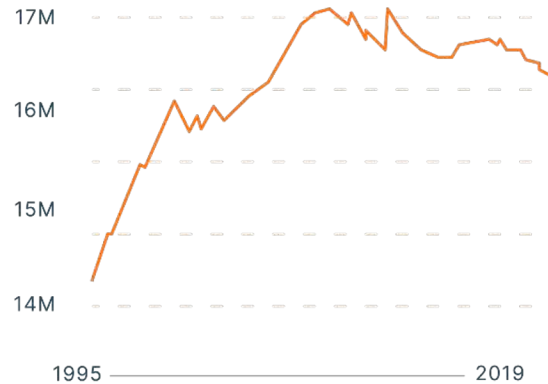
Census data also shows small percentage of **55–61** yr olds retired early and the ones that did tended to be in poor health.



16-19 year olds are a key “first job” demographic

16–19-year-old population

Boomer children helped explode this group, but that will continue to erode going forward.



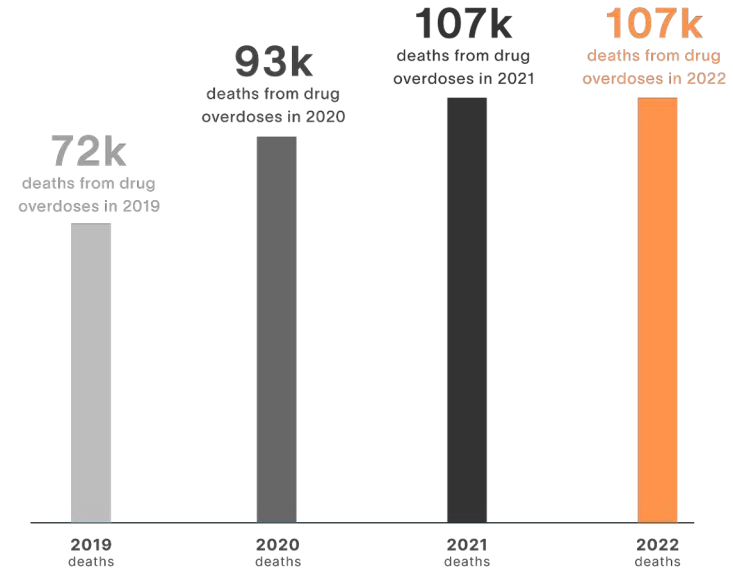
16–19-year-old labor force

Despite a somewhat stable population, the number in the labor force fell for decades and has plateaued lower for a decade.



Prime age excess deaths from overdoses and alcohol surged in 2020, '21, constant in '22

Drug Overdose Deaths



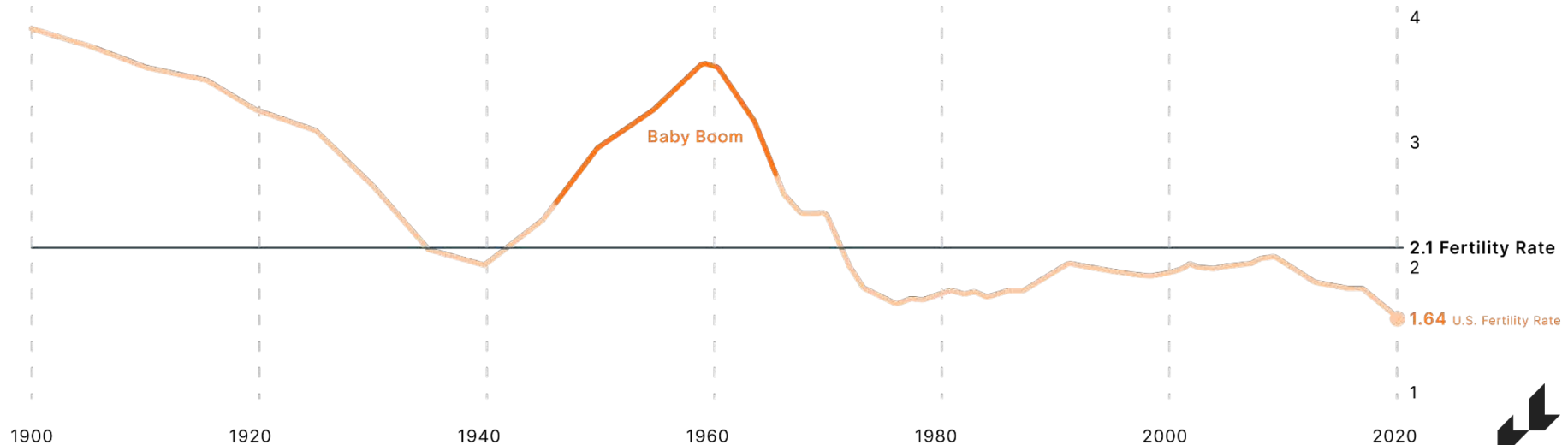
“Estimates of the number of **additional substance abusers** during the pandemic presented here suggest that increased substance abuse accounts for between **9 and 26 percent** of the decline in prime-age labor-force participation between February 2020 and June 2021.”

- <https://www.nber.org/papers/w29932#fromrss>



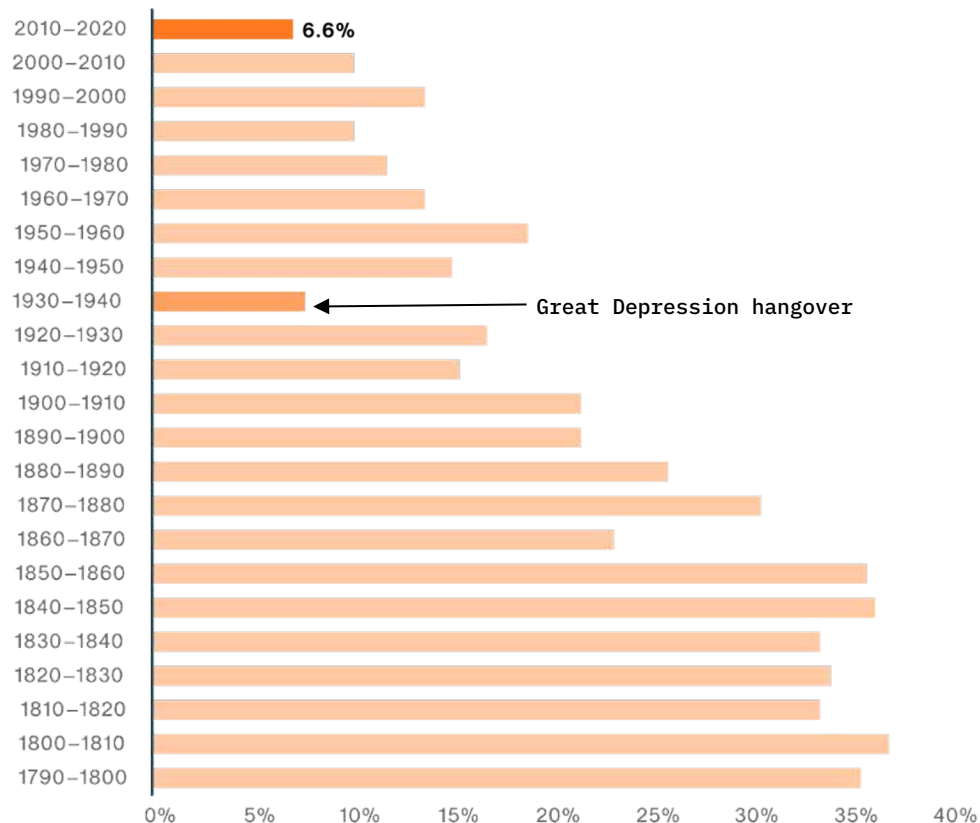
We're living below the 2.1 birth replacement rate

We can't employ what we don't have



US population growth by decade

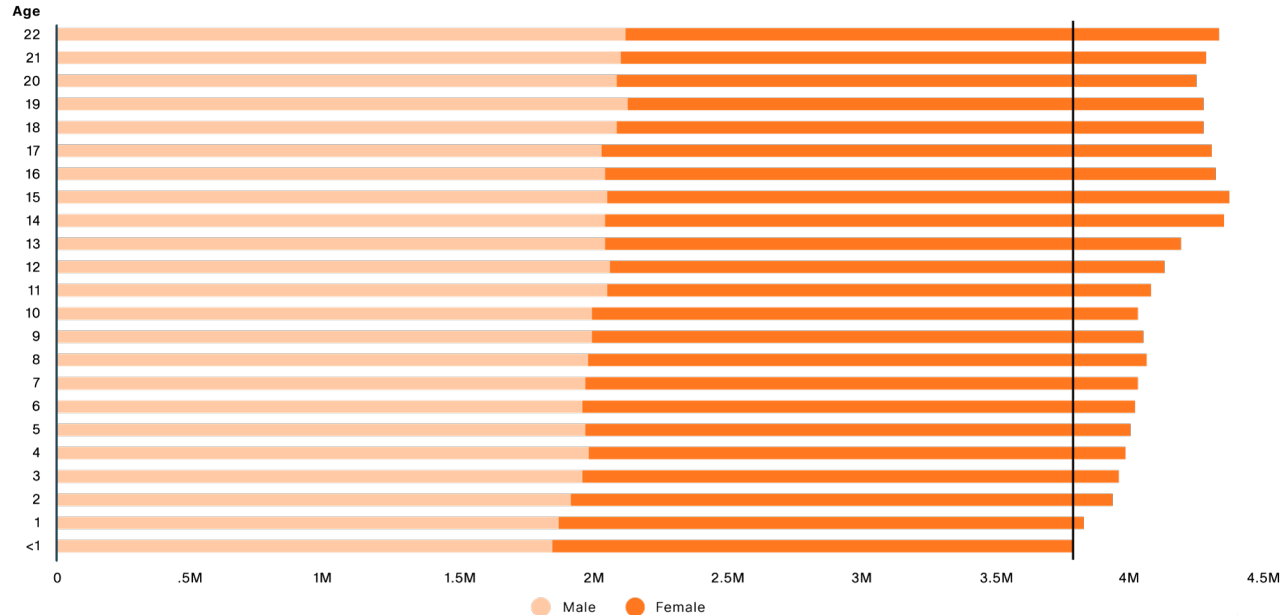
1790 to 2020 (estimated) censuses



Over the next 16 years, we will have nearly 1M fewer potential entrants

From 2010 to 2021, the 0 to 4 age group **declined 6.7%**, the largest drop of all age groups.

- USA Facts



“By **2034**, older adults will outnumber children for the first time in U.S. history.”

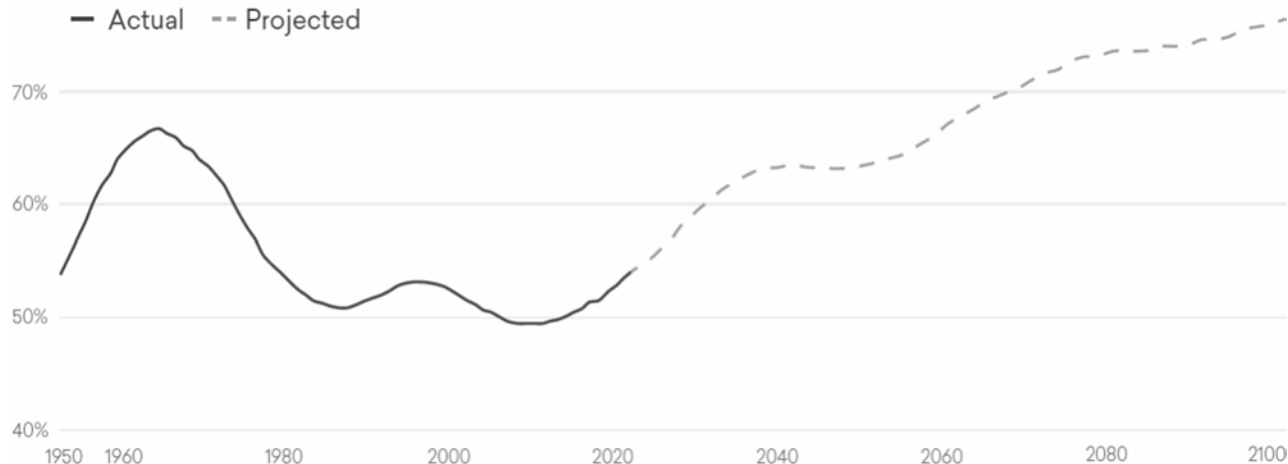
Demographic Drought: Bridging the gap in our Labor Force



The US age dependency will increase sharply

Currently the US age dependency ratio is **46%** but will hit **60%** by **2030**.

Age Dependency Ratio Projection



Source: United Nations- Population Division (2019 Revision)



Legal Immigrants



Immigration is bouncing back but there is still a significant deficit

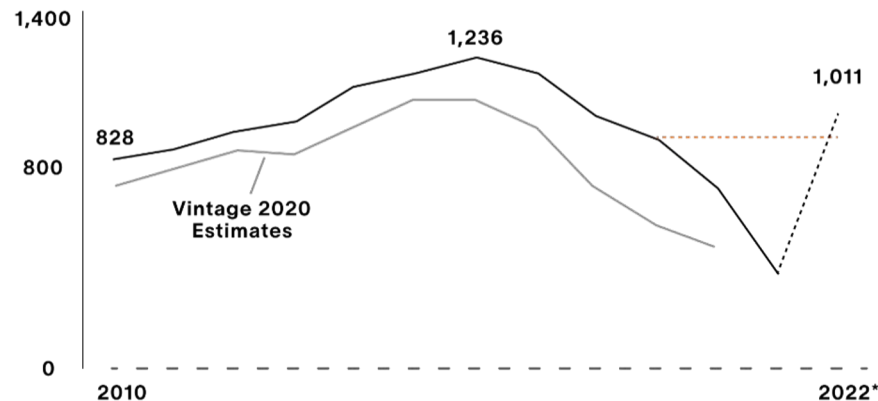
Average immigration numbers per year:

1990-99	977,500
2000-09	1,029,900
2010-19	1,063,300
2020-21	576,000

We have a gap of a million legal immigrants

Immigrants in the Civilian Labor Force 2010-2022

Net International Migration: 2010-2022 (in thousands)



* Data shown for 2022 are projections.

Note: Year represents the annual estimates period ending on June 30. Released estimates will report 2010 and 2020 as a quarter year (April 1-June 30) instead of a full year.

Source: U.S. Census Bureau Vintage 2020 Estimates (2010-2020); Internal Simulation of 2010-2020 Estimates; and Vintage 2022 Estimates (2021-2022).

New international student enrollments fell **45.6%** in 2020-21.
Total foreign enrollments fell **15%** to 914K.



Immigration is an opportunity to recover our labor crisis for lower skilled jobs

Job openings have soared in lower-skilled industries.

Occupational Group	Foreign Born	Native Born
Service Occupations	20.6%	14.4%
Nat. Rsc, Construction, Maint.	13.6%	8.1%
Production	15.2%	11.7%

Source: BLS JOLTS, internal analysis, CMS

% of their total workforce



DID YOU KNOW...?



1 out of every 4
construction, farming and
maintenance workers is
foreign born



1 out of every 5
manufacturing workers is
foreign born



Healthcare relies heavily on immigration

1 out of every 4 physicians & surgeons

1 out of every 5 nurses

1 out of every 4 health aides

Select Healthcare Occupations in the US

Occupation	Immigrant Share of Workforce
Physicians & Surgeons	28.2%
Health Aides	25.3%
Lab Technicians	19.6%
Nurses	15.3%
Respiratory Therapists	13.6%
EMTs	5.1%

Immigrant Share of Healthcare Workers in Select States

State	Physicians and Surgeons	Nurses	Health Aides
New York	36.4%	30.9%	60.7%
New Jersey	40.3%	29.5%	53.7%
California	33.1%	35.2%	44.3%
Michigan	27.1%	7.0%	4.8%
Massachusetts	34.5%	17.1%	39.8%
Florida	36.5%	25.8%	45.6%
Illinois	30.6%	17.5%	20.9%
Washington	24.1%	15.9%	29.0%
Pennsylvania	23.7%	7.9%	11.7%
Texas	31.7%	20.6%	24.5%
Virginia	32.4%	12.7%	17.3%
Georgia	27.8%	11.1%	17.5%
Arizona	28.8%	13.0%	21.4%
Maryland	31.0%	26.6%	40.9%
North Carolina	16.7%	6.8%	4.4%
Ohio	27.1%	3.7%	7.8%

Undocumented Workers



Myths about undocumented workers

- ☐ We don't know how many are here or where they live
- ☐ We don't know where they work
- ☐ Everyone who comes to the US stays here (roughly 1M return home every year)
- ☐ They're all fentanyl dealers (77% of all drug traffickers are American, 2% of all border drug seizures in 2022 were fentanyl/heroin. Drug seizures were down dramatically in 2022 despite record border encounters)
- ☐ They all cross the border (~40% of undocumented immigrants overstayed their work or travel visas)



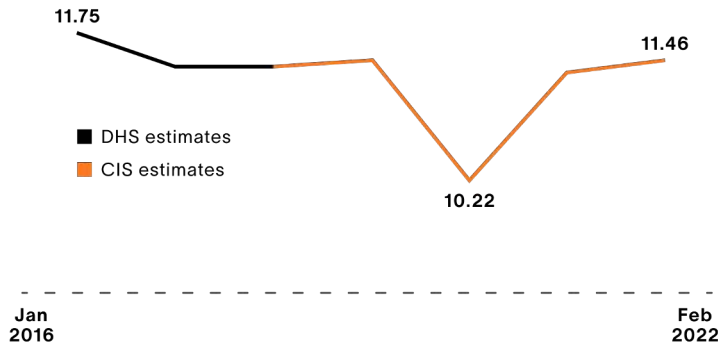
12M Illegal Immigrants are in our population, 2/3rds are employed

Undocumented immigrants make up approximately 3.2 percent of the U.S. population, but **4.4 percent of the country's workforce.**

There are more than 8.5 million* undocumented immigrants working in the United States.

In 41 states and Washington, D.C., there are more than 10,000 undocumented workers, and in 16 states that total is greater than 100,000.

DHS and CIS Estimates of the Illegal Immigrant Population, January 2016 to February 2022 (in millions)



Source: Department of Homeland Security and Center for Immigration Studies estimates of the illegal immigrant population.



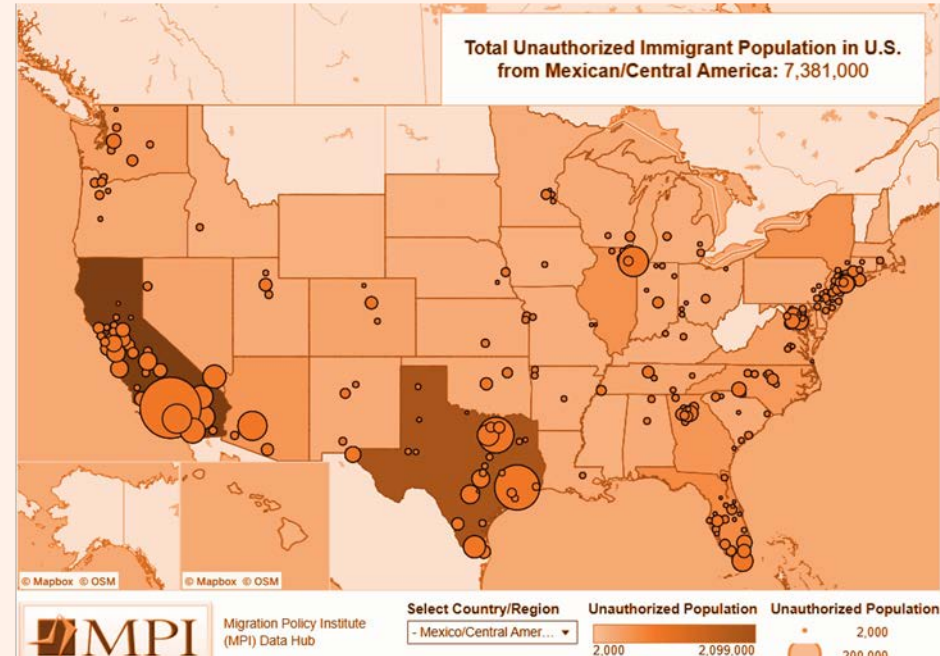
Unauthorized immigrants are largely geographically concentrated

Unauthorized immigrants are highly concentrated in southern States

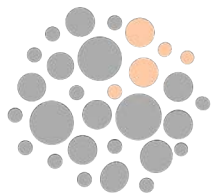
California and Texas are home to the largest undocumented workforce, with **1.4 million** and **1.2 million** undocumented workers, respectively.

In 41 states and Washington, D.C., there are more than **10,000** undocumented workers, and in 16 states that total is greater than **100,000**.

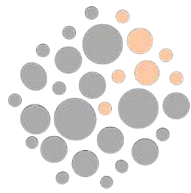
SOURCE: www.migrationpolicy.org data



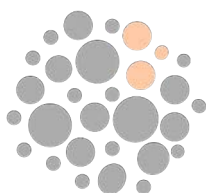
They work in critical sectors



1.4M work in construction, **13%** of all construction workers.



15% of workers in building and grounds cleaning and maintenance occupations



1M work in accommodation and food services, approximately **8.4%** of the industry



Nearly **one-quarter of a million** are working as health care providers and 188K as custodians, food servers for healthcare



~ **1.7M** work in the nation's food supply chain—from **358,000** farmworkers and food processors to **154,000** working in supermarkets, grocery stores, and convenience stores.

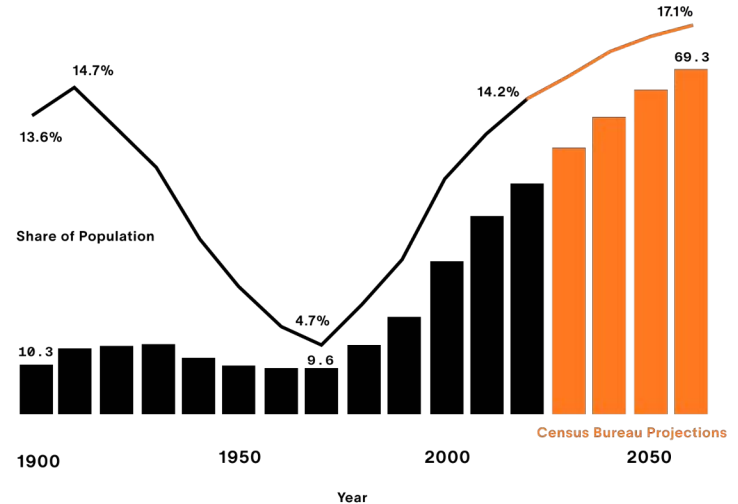


Immigrants are now the most significant driver of employment growth in the US.

“The monthly CPS also shows that the total foreign-born population (legal and illegal together) grew to 46.7 million in February 2022, a new record high in American history and an increase of 1.7 million since January 2021.”

“Illegal immigrants account for more than one million (about two-thirds) of the increase in the total foreign-born population since January of 2021.”

Foreign-Born in the U.S. Number and Percent, 1900-2022, plus Census Bureau Projections to 2060



Source: Decennial Census for 1900 to 2000, American Community Survey for 2010, February Current Population Survey (CPS) for 2022. The CPS does not include the institutionalized. For 2030 to 2060, see



THE BOTTOM LINE

Since 2011, the U.S. has seen its labor force of 16-24 year olds *fall* by an average of **9,000** every year. When Boomers were at those ages, each year saw an average *increase* of **792,000**.

Total projected net new jobs to 2031 are over **8M** and total job openings (factoring in turnover and replacements of quitting or retiring workers) are almost **20M**.

The US needs up to 2M additional workers a year.





Who is going to do the work?

The US labor force is currently predicted to grow by 23M to 2038

Unskilled Labor

(high school diploma or less)

College Educated

(Bachelors, Masters and Doctorate)

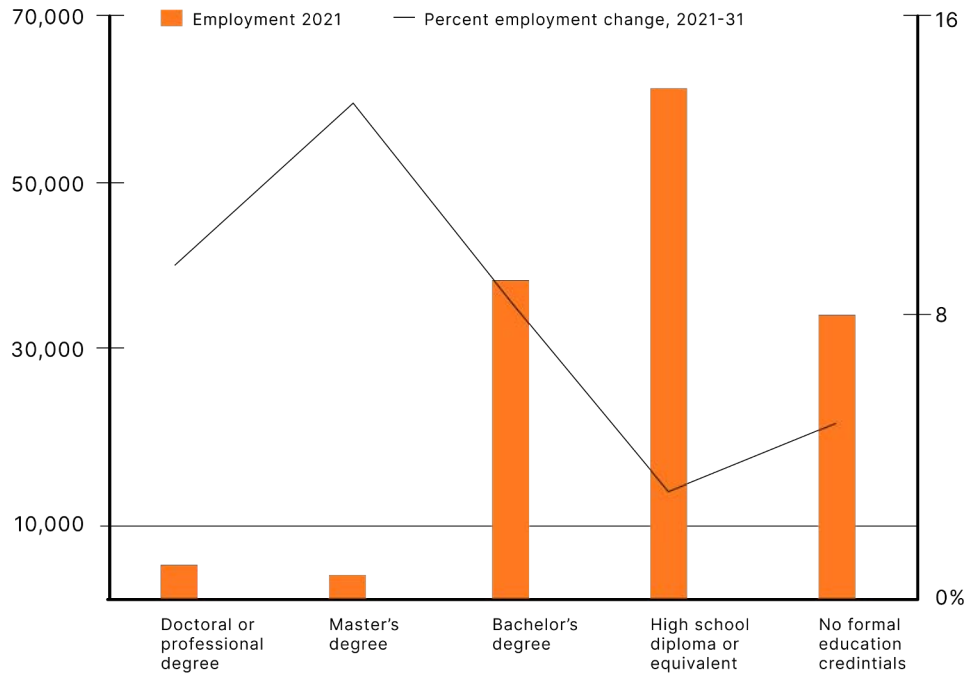
Skilled trades

(high school, trade school or Associate's degree)

A battle has been forming and will intensify between 3 occupational groups

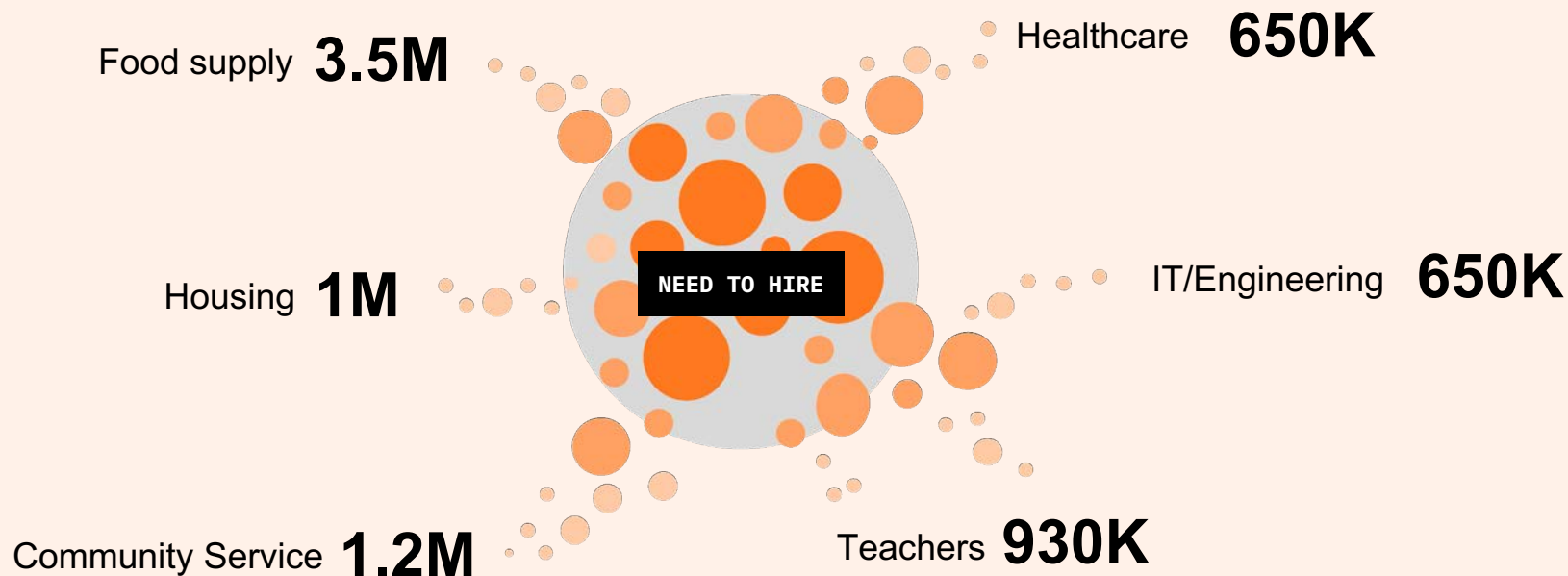


Employment Growth, 2021-2031, by Education



The US economy will need workers from every education level to grow, but, we're still primarily dependent on high school level workers.





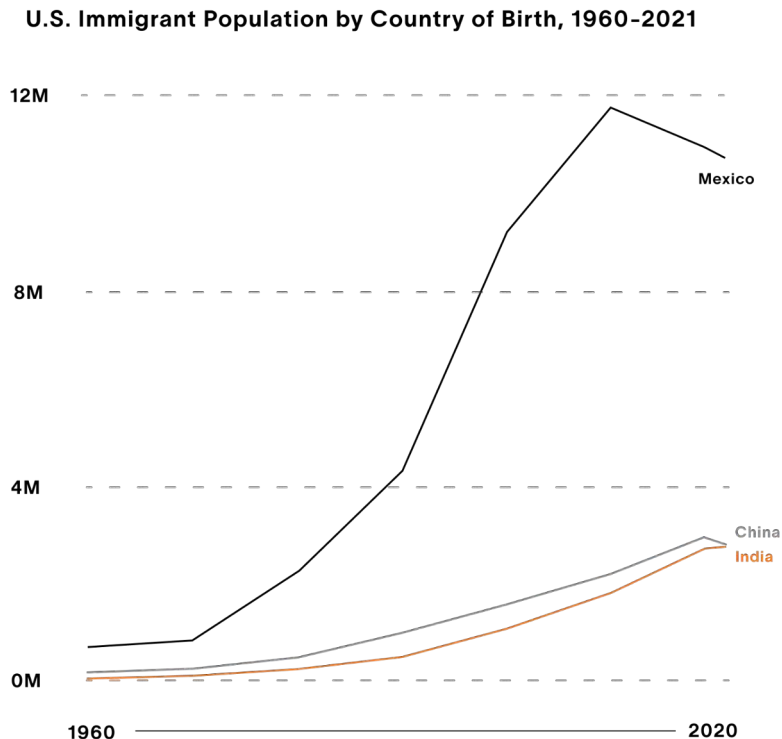
8M jobs to fill every year



The predominant country of origin for US immigrants is Mexico with about 1 in 4 migrants.

China and India are essentially tied for 2nd.

SOURCE: Migration Policy Institute (MPI) Data Hub



The math problem immigration will **dry up**

Countries who send the most immigrants to the US are having their own problems

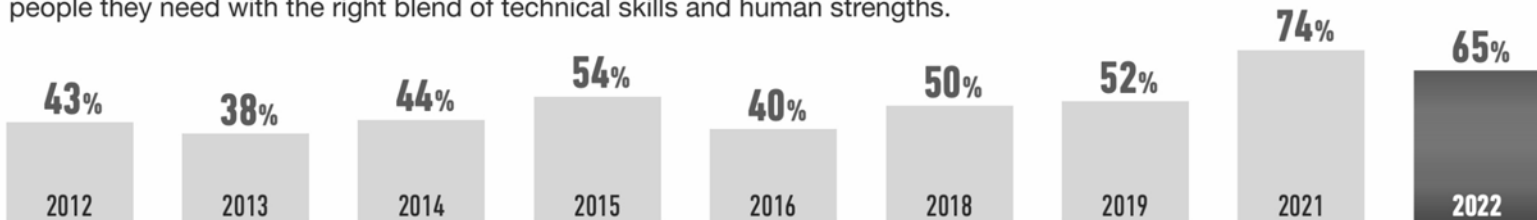
MEXICO

Infographic: "Mexico's 2022 Talent Shortage" - [Manpower](#)



Talent Shortages Over Time

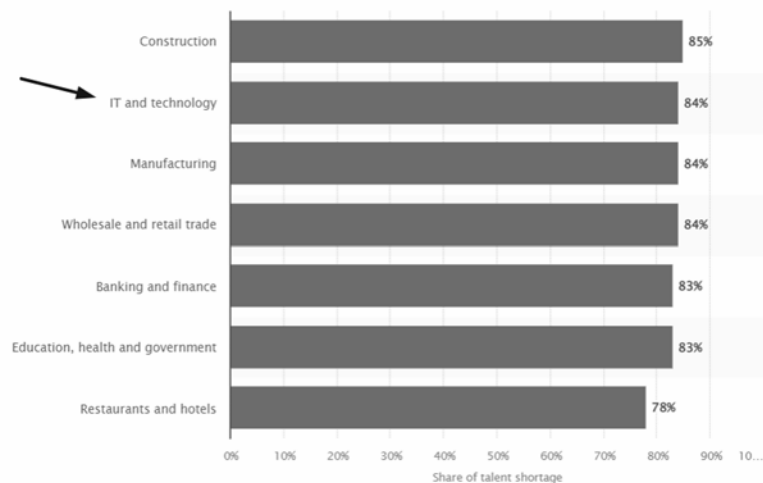
From manufacturing to marketing, transport to trade, employers cannot find the people they need with the right blend of technical skills and human strengths.



The math problem immigration will **dry up**

Countries who send the most immigrants to the US are having their own problems

Share of talent shortage across India in 2022, by industry



INDIA

“In 2022, about 83 percent of the industries across the south Asian country of India stated that they had talent shortages. Construction industry had the highest shortage of skilled labor of about 85 percent in that year.”

- Statista 2022

“Nearly two-thirds (65%) of IT companies in India are employing gig workers this year, a higher share compared to 57% of the organisations in 2020, according to a report, indicating that firms are turning to gig workers to address shortage of tech talent.”

- Nasscom, Indeed and Aon, Nov 4th, 2022

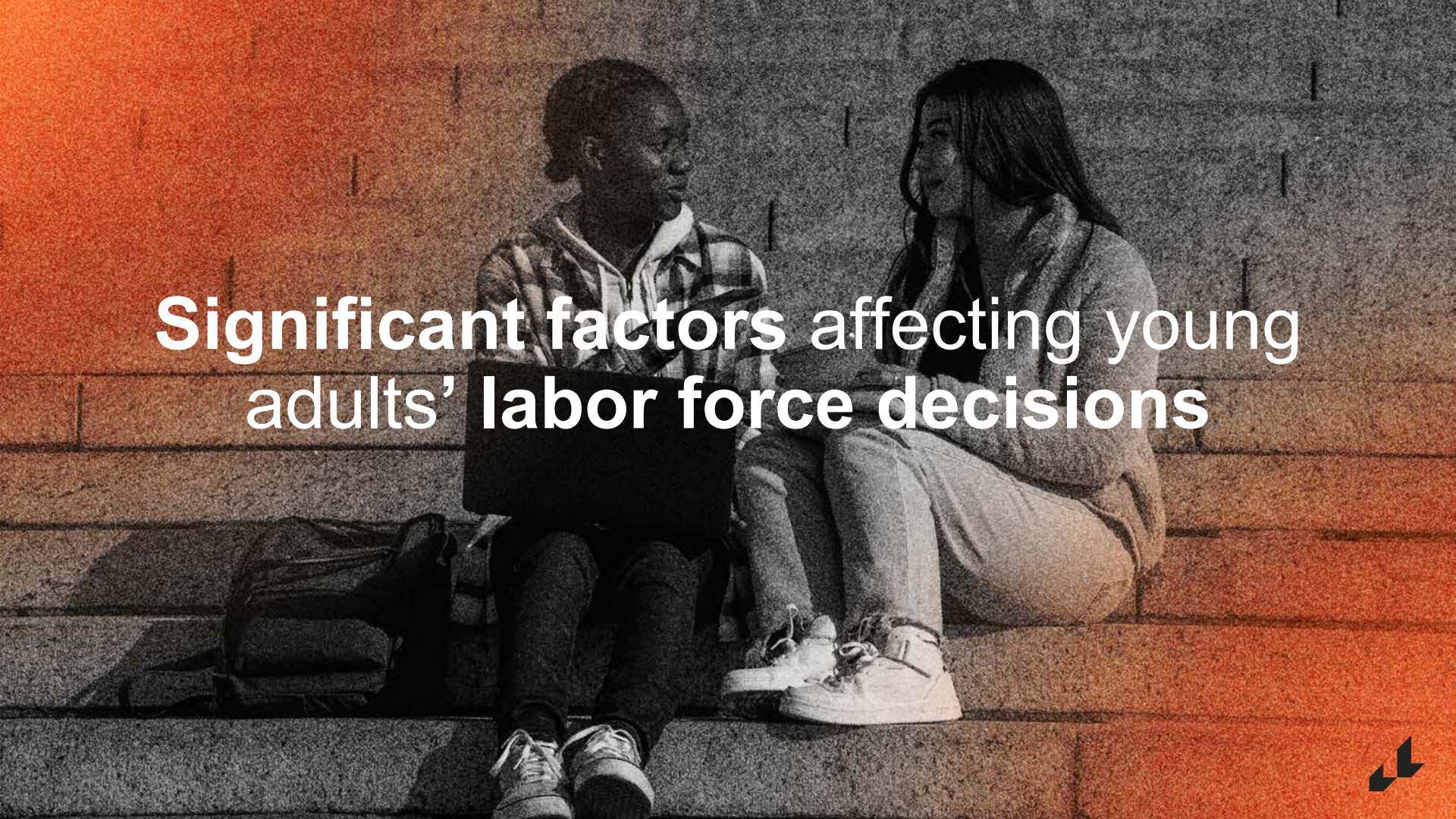


THE BOTTOM LINE

There is very little chance that the US will be able to fill the critical jobs that keep an economy functioning outside of immigration.

This could improve if certain fundamental aspects of society change.

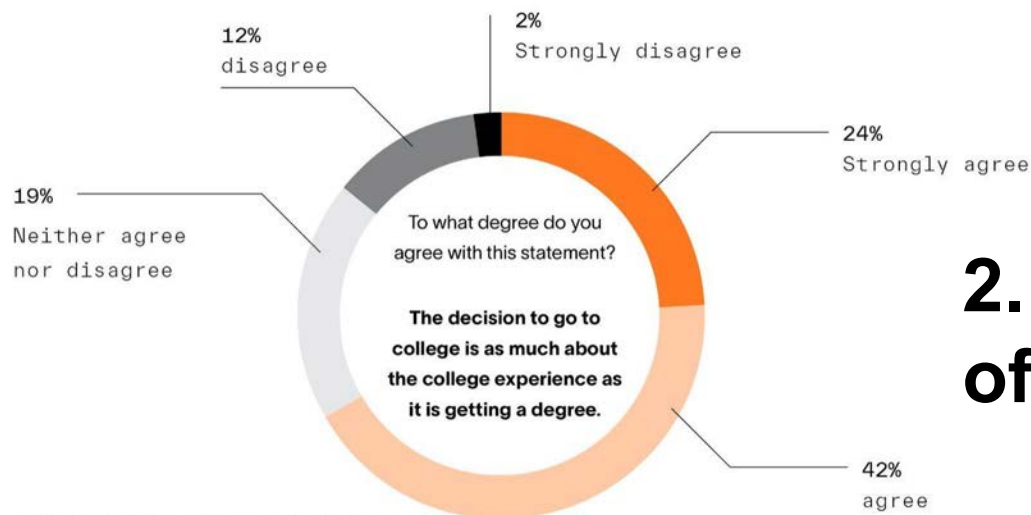




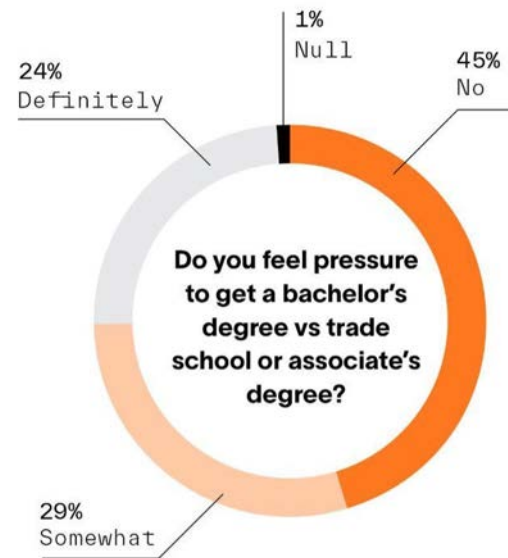
Significant factors affecting young adults' labor force decisions



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



TALLO/LIGHTCAST STUDENT SURVEY, 2022



TALLO/LIGHTCAST STUDENT SURVEY, 2022

2. The experience of college



3. Potential, perception and earnings

Thinking about the jobs one can obtain when going to a **community college** or skilled trade school, what are your concerns?

29% Outcomes,
harder to find a good job

23% Earnings,
don't make enough money

20% Prestige,
Society doesn't value these jobs

Thinking about careers in construction, manufacturing, maintenance, logistics, or agriculture, what are your primary concerns?

(22% had no concerns)

43% Physical Labor

32% Work environment
(I want to work in an office)

27% Unfamiliarity,
not sure what these jobs do

19% Jobs don't pay enough

13% Reputation

Employer Solutions



The background of the slide features a close-up photograph of a person's hands, wearing a dark grey long-sleeved shirt, working on a wooden surface. The person is using a tool, possibly a chisel or a similar carving tool, to shape the wood. The lighting is warm, and the wood grain is visible. Overlaid on this image is a semi-transparent orange gradient that covers the right side and bottom of the frame. Centered in the white text is the message:

Jobs that do not
require a college
degree/ skilled trades



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”



1 Skilled Trades, as well as any other non-college occupation **suffers from a marketing problem**



Compensation & Experience

Much quicker path to gaining experience, a four year head start

Career Progression

From apprentice to senior level experience in just a few years.

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 skilled trades

Ownership

Owners gain real world business savvy such as pricing, scheduling, inventory management, negotiation, human resourcing and many more. Furthermore, they gain freedom! Work the hours you want, take vacation when you want. The amount you make is largely under your control.



The pay differential, a deeper look



7 years experience
as an electrician

A 25 year old

VS



3 years experience
as an accountant



Overall advertised wage currently
Master Electrician **\$83K**, Staff Accountant **\$58K**

At 7 and 3 years experience:
Electrician **\$58K** vs Accountant **\$63K**

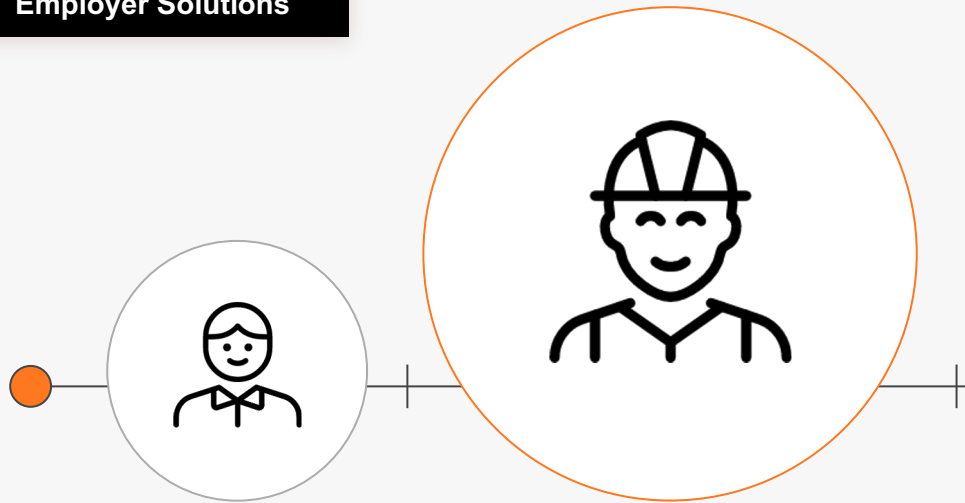
Accumulated earnings at 25.
Electrician, **\$378K**, Accountant, **\$180K**.

Average cost of attending college is currently **\$36K/year** including all expenses.

Tuition alone ranges from **\$9.5K to \$43K** for public, **\$37K to \$55K** private

The average student **loan debt** balance is **\$38K**



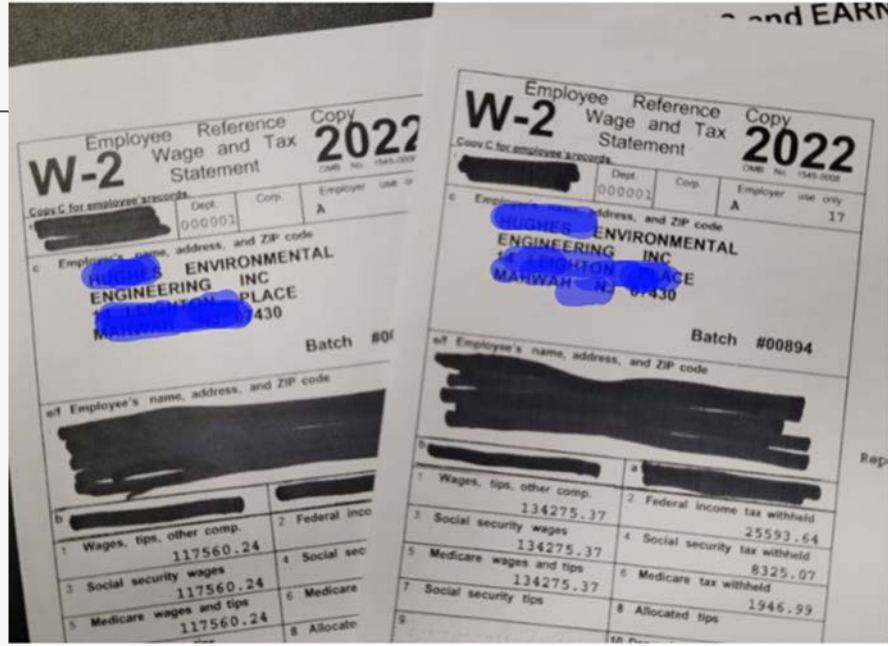


IF THE ELECTRICIAN HITS
MASTERS LEVEL, THE
ACCOUNTANT WOULD LIKELY
NEVER CATCH THEM OVER THE
COURSE OF A CAREER.

 **Brian Hughes** • 3rd+
President at Hughes Environmental Engineering
4d • Edited • 

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Today I am proud to be mailing out W-2s with these kinds of earnings. These are young HVAC Service Technicians still in their 20's. No college degree, so no college debt! For anyone considering a career in the Trades, I am telling you the numbers are REAL! [#jointhetrades](#)



The image shows two 2022 W-2 Wage and Tax Statements from Hughes Environmental Engineering, Inc. The statements are for employees whose names and addresses are redacted. The first statement (Batch #00894) shows wages of \$117,560.24 and federal income tax withheld of \$25,593.64. The second statement (Batch #00894) shows wages of \$134,275.37 and federal income tax withheld of \$25,593.64. Both statements show social security wages of \$117,560.24 and social security tax withheld of \$7,125.07. Medicare wages and tips are \$117,560.24, with Medicare tax withheld of \$1,946.99. The employer's address is listed as 14000 MAHWAH PLACE, MAHWAH, NJ 07430.



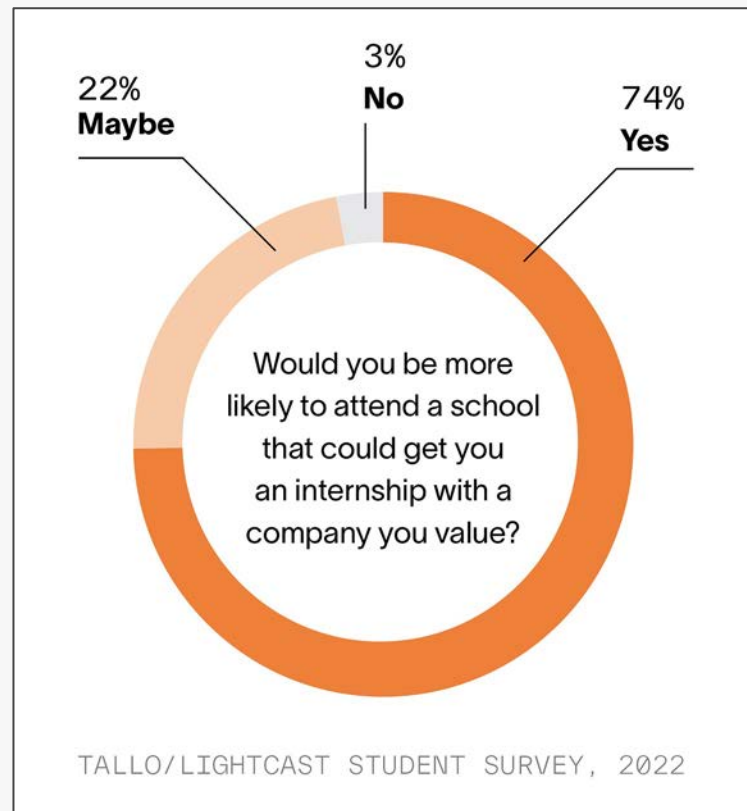
2 Create Social Networks

If they value the “**coming of age**” **experience** of college, work with other businesses to socialize young people with their peers



3 Internships and apprenticeships

Figure out who they value and why they value them.



4 Earlier Messaging.

Get your **message** to them at **younger ages** and then stick with them through graduation.





Robotics, he said, are good at “garnering headlines,” but “it’s not practical in the vast majority of restaurants.” McDonalds CEO Kempczinski, July 2022

Source: the Smiling Curve:
Stan Shih.



Develop a less worker dependent model...

- Industrial Engineering
- Desk Audits
- Core Competency

**... and then allocate
workers appropriately**

What do you want to be great?

What can be just good?

What can you get rid of?

“Taco Bell and Tim Hortons are both leaning hard on drive-thru prototypes that ditch the dining room. Starbucks, Chick-Fil-A and Panera have all dramatically expanded in last few years around dual-drive thru and takeout-heavy business focuses that drive revenue up and costs down.”





Jobs that require a college degree

The world is changing, change with it.



Create your workforce

1) Apprenticeships, Internships

- **600K** registered apprentices in the US, +120K new in 2021. Mostly in skilled trades.
- **Emerging apprenticeships** after 2015 are spanning out across occupations.
- **Informal apprenticeships** (not registered with DOL) but advertised as such are twice the size of formal ones.
- **Apprenticeships STARs:** Workers who are skilled through alternative routes. STARs, as a talent category, are more than half the workforce. 65% of Black workers are STARs as are 55% of Hispanics workers. 52% of all women in the workforce are STARs

From the Lightcast & Opportunity at Work joint article, "The Changing Face of Apprenticeships"



Apprenticeship quick hits

Not just a skilled trades focus anymore, they are now occurring in healthcare (nursing, pharmacy techs), and IT, especially in emerging technologies, management analysts, & project managers.

IT is growing in emerging industries like cyber security and renewable energies

Despite only **8.2%** of its population having a college degree, **India is the largest IT** offshoring destination in the world.



Create your workforce

2) Skills based hiring, and re-examining your ATS screens

The average corporate job opening receives 250 applications while the average job opening gets 118 applicants

Numerous articles exist showing how qualified candidates can get past ATS “bots”. Why would those articles need to exist?



40-60% of companies cited a **lack of skills** as the barrier to hiring but they had received numerous applicants.

- NFIB (Jan '22) Forbes
May 17, 2022

The surplus of job seekers when boomers flooded the market created a “**ready made employee**” mindset. That did not exist prior to the boomer population.

From the 1950s to the early 70s, **only 15%** of the US population had **completed a 4 year degree**, so most management positions were filled by workers who had started at the very bottom of the organization.



3) Artificial intelligence

Interactive voice response software was first implemented in the 1970s, yet...

According to Lightcast data, we have **71K** customer service job openings in the U.S. right now



Put all your cards, all options on the table.

Assign risk and tolerance levels.





Society **Solutions**

**Ease up on the message
that everyone needs to go
to college.**



- 1** **Organic approach** – Young people need to be encouraged to follow whatever employment path they choose.
- 2** **Take guilt and pressure out of the equation.** College is always an option. It may make sense for many young people to begin their career and then add college on later to advance their business skills.
- 3** **Career diversity matters** – We are all created differently and parents, guidance counselors, leaders need to see all paths as equally valuable.



Modernize thinking and policies around immigration



Move ahead strategically

- 1 Remove the H2B cap**
- 2 Invest in solutions that lead to faster visa approvals.**
- 3 Allow industries to have a voice and give them a stake in the game.**



A close-up, artistic photograph of a hand holding a pen and writing in a notebook. The scene is illuminated by a warm, orange-red light, creating a soft, contemplative atmosphere. The hand is positioned in the upper right, with the pen tip touching the paper. The notebook is open, and the pages are visible. The overall texture is slightly grainy, giving it a painterly or vintage feel.

The Big Question



**Will labor force participation
increase in the future?**



Factors affecting Labor force participation into the future

Mix shift.

Aging boomers with lower LFPRs will pull the overall percentage down for awhile and then it will improve as they age out of the workforce

Wealth transfer.

Millennials will receive an estimated \$1.6T through wealth transfers from their boomer parents at an average of \$1.2M per family. This should drive more older millennials out of the labor force.

Elderly parent care.

As the population ranks of aging boomers swells and a lack of labor to work in nursing care facilities becomes more compounded, more adults will have to stop working to take care of their parents. Currently that number is 2M of those out of the labor force.



“The labor force participation rate is projected to continue to trend down, declining from 61.7 percent in 2020 to 60.4 percent in 2030.”

- BLS projections



Who does the work in the future will be determined by the actions we take now.





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SCAN



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