U.S. LABOR MARKET OUTLOOK

2020

AND FIVE-YEAR FORECAST

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Executive Summary

ThinkWhy is helping companies navigate a new era of work by creating modern, human-centered solutions that drive alignment between labor economics and business strategy.

The Labor Market Outlook is intended to help businesses better understand economic impact, reduce risk and drive informed growth planning.

ThinkWhy's summary of the current state of the economy and outlook are based on rigorous analysis of broad economic and fundamental market indicators, and the metrics that drive the labor market.

To help guide strategic business decisions, we provide an in-depth analysis of the following key economic variables.

- Job growth by industry
- Wage growth by industry
- Consumer sentiment
- Personal consumption expenditures (PCE)
- Corporate profit growth
- Household real estate equity
- Population changes by age
- Labor force participation by gender
- Birth rate and education

While the forecast for U.S. job growth sets the tone for the economy, industry job growth directly impacts businesses. Robust job growth indicates an expanding industry and can represent a tight labor market, and therefore, a reduced talent supply. Conversely, below average job growth typically represents a slowing industry and organizations may need to allocate resources toward training, upskilling and automating workflows.

The ThinkWhy 2020 Outlook provides job growth forecasts within specific industry sectors which impacts budgets and business hiring decisions. Consumer spending trends indicate the public's confidence and provide early indicators as to the overall shape of the economy.

With the unemployment rate at an almost 50-year low, there could be an impact on industry wage growth over the next five years. There are a few scenarios to consider as you plan and budget for 2020, including how salary increases compare to industry averages and the rate of payroll growth.

Economic Factors Impacting Trends

- Consumer Sentiment: Trending Down
- Personal Consumption Expenditures: Trending Down
- Corporate Profits Growth: Trending Down
- Household Real Estate Equity: Trending Down
- Older Workers Remaining in Workforce: Trending Up
- Female Labor Force Participation: Trending Up
- Fastest Job Growth: Leisure and Hospitality
- Slowest Job Growth: Government
- Fastest Wage Growth: Leisure and Hospitality
- Slowest Wage Growth: Other Services

In conclusion, ThinkWhy's forecast indicates the U.S. will show moderate economic growth for the remainder of 2019 and 2020, bottom out in 2021, and then return to a period of growth through 2025. Job growth will trend downward, moving from 1.5 percent in 2019 to 1.0 percent in 2020.

U.S. Labor Market Outlook 2020

The U.S. economy is in its 123rd month of economic growth (Gross Domestic Product), the longest in history.

A slowdown may be on the horizon as evidenced by slowing job growth, an occasional inverted yield curve, protracted trade uncertainty and weak global economies. Talk about the timing of the next recession is getting louder.

ThinkWhy™ It Matters

This outlook is based upon the basic indicators of the U.S. economy's strength: Gross Domestic Product (GDP) and job and wage growth by industry. To help guide your business decisions, we have analyzed key economic variables and their drivers, including:

- Consumer sentiment, personal consumption, corporate profits, household real estate equity, average hourly earnings growth and fiscal policy.
- Population shifts in age-based demographics, labor force participation rates by gender, birth rates among working mothers, and age of first marriage by gender.
- Labor force education, job growth and income by education level.

Measures of the U.S. Economy's Strength

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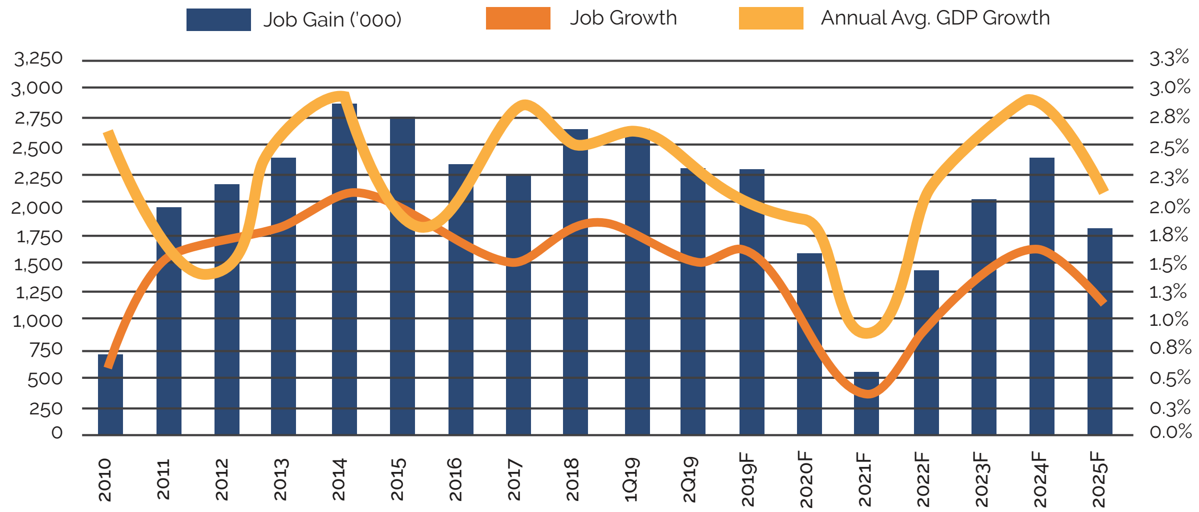
Over the next six years, ThinkWhy forecasts the U.S. economy will:

- Exhibit moderate economic growth in 2020, bottom out in 2021, and return to a period of growth through 2025.
- Slow in both job and GDP growth in 2020, bottom out in 2021 and peak in 2024, before falling again in 2025.

U.S. Job and GDP Growth



Sources: ThinkWhy, BLS, BEA

▼ 0.5%

Job Growth

Trending downward in 2020, decreasing from 1.5 percent in 2019 to 1.0 percent in 2020

▼ 0.2%

GDP Growth

Trending downward in 2020, slowing from 2.0 percent in 2019 to 1.8 percent in 2020

0.4% and 0.9%

Job Growth & GDP Trough

Look for these economic drivers to bottom out in 2021 at 0.4 percent and 0.9 percent, respectively

Job Growth

Industry and Sub-Sectors

The forecast for U.S. job growth sets the tone for the economy and may impact your business. Depending on your specific industry's economic conditions, your company's growth could perform above or below the five-year forecast average of 1.17 percent for the U.S.

Above average job growth indicates an expanding industry and can represent a tight labor market, and therefore, a reduced talent supply. Businesses should:

- Continue to offer competitive wages and strong benefits packages to recruit top talent.
- Consider strategies to utilize alternative workforce employees.

Below average job growth typically represents a slowing industry and companies may need to:

- Reallocate resources to focus on workflow automation and process improvement.
- Budget for enhanced training, upskilling and use of freelance talent.

A comprehensive description of each industry sector can be found HERE.

Industries showing FASTER job growth than the U.S. average in 2020

Four super sectors, accounting for a 41.3 percent share of employment in 2019, are expected to grow faster than the 1.0 percent national average: Leisure and Hospitality (2.6%), Mining, Logging and Construction (1.9%), Professional and Business Services (1.5%) and Education and Health Services (1.3%).

Industries showing SLOWER job growth than the U.S. average in 2020

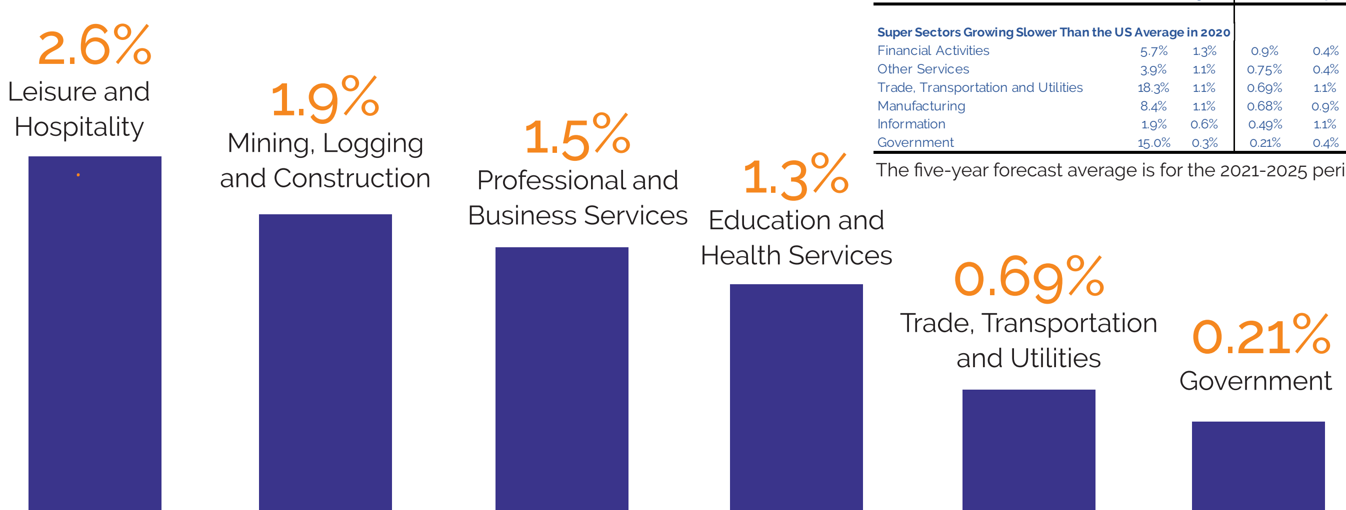
The two largest super sectors with below average job growth in 2020 account for a 33.3 percent share of employment. These sectors and their forecasted job growth are: Trade, Transportation and Utilities (0.69%) and Government (0.21%).

Financial Activities, Other Services and Manufacturing, accounting for a smaller share of employment in 2019, are forecasted to grow at 0.9 percent, 0.75 percent and 0.68 percent, respectively.

Job Growth by Industry and Sub-Sectors

Industry Super and Sub-Sectors	Share	2019F	2020F	5-Year Forecast Average	Long-Term Trend
Super Sectors Growing Faster Than the US Average in 2020					
Leisure and Hospitality	11.2%	2.7%	2.6%	2.0%	Down
Mining, Logging, and Construction	5.5%	2.8%	1.9%	1.4%	Down
Mining and Logging	*0.5%*	*2.9%*	*1.9%*	1.5%	Down
Construction	*5.0%*	*2.8%*	*1.9%*	1.4%	Down
Professional and Business Services	14.2%	2.3%	1.5%	1.2%	Down
Professional, Scientific and Technical Serv.	*6.3%*	*2.3%*	*1.5%*	1.5%	Stable
Education and Health Services	15.9%	1.9%	1.3%	1.1%	Down
Education	*2.5%*	*1.7%*	*1.1%*	1.1%	Stable
Health	*13.4%*	*1.9%*	*1.3%*	1.2%	Down
U.S.		**1.50%**	**1.00%**	**1.17%**	**Up**
Super Sectors Growing Slower Than the US Average in 2020					
Financial Activities	5.7%	1.3%	0.9%	0.4%	Down
Other Services	3.9%	1.1%	0.75%	0.4%	Down
Trade, Transportation and Utilities	18.3%	1.1%	0.69%	1.1%	Up
Manufacturing	8.4%	1.1%	0.68%	0.9%	Up
Information	1.9%	0.6%	0.49%	1.1%	Up
Government	15.0%	0.3%	0.21%	0.4%	Up

The five-year forecast average is for the 2021-2025 period



Wage Growth

Industry and Sub-Sectors

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Finding great talent is challenging. As of late, new talent is commonly obtained by poaching candidates from other companies. Without a competitive wage, your talent is more at risk for poaching; thus, retention becomes more important than ever.

With the unemployment rate at an almost 50-year low, at 3.5 percent in September 2019, there may be an impact on your industry's wage growth over the next six years. There are a few scenarios to consider as you plan and budget for 2020 and beyond, including how your salary increases compare to your industry's average and the rate of your payroll growth.

As a benchmark, we have calculated the weighted-average wage growth for all super sectors using share of employment in 2019 to evaluate each sector's forecasted performance.

Super sectors showing FASTER wage growth than the weighted average in 2020

In 2020, four of the nine super sectors are forecasted to experience wage growth greater than 3.0 percent: Leisure and Hospitality (3.6%), Trade, Transportation and Utilities (3.3%), Information (3.3%) and Financial Activities (3.3%).

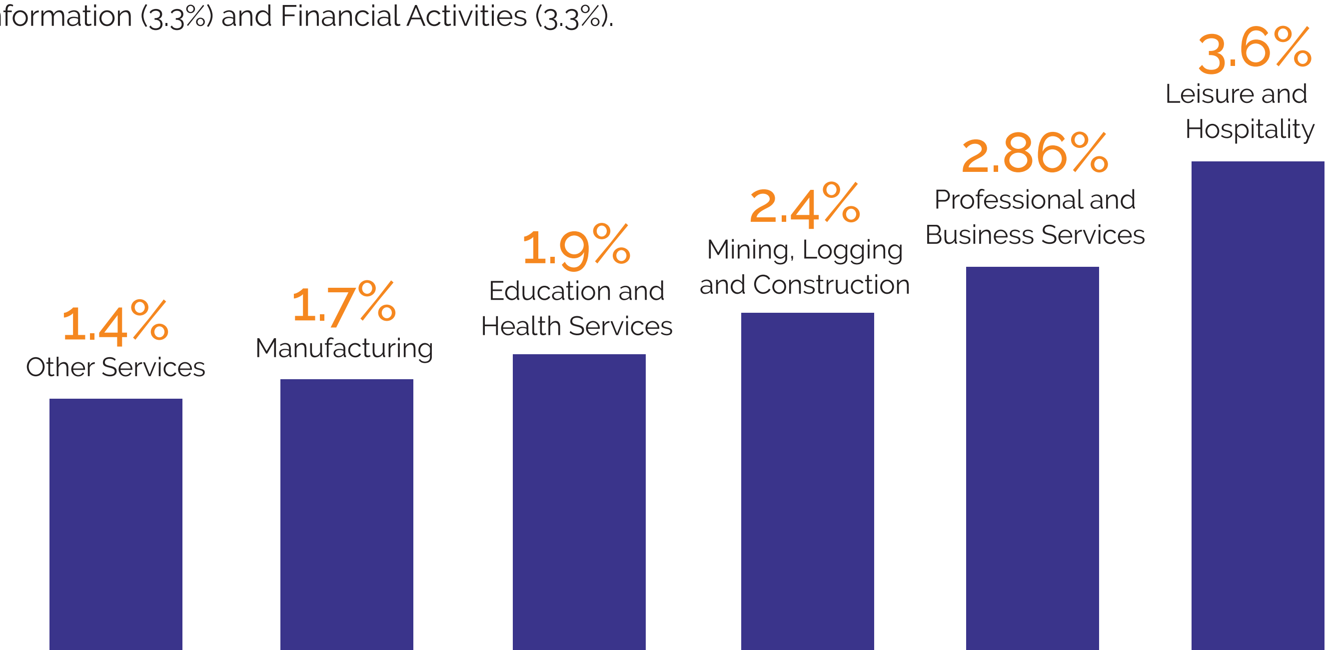
Super sectors showing SLOWER wage growth than the weighted average in 2020

Super sectors with the slowest 2020 wage growth forecast are: Other Services (1.4%), Manufacturing (1.7%) and Education and Health Services (1.9%). Over the five-year forecast period, Professional and Business Services (2.3%), Construction (2.3) and Education and Health Services (2.2%) will lead this group.

Wage Growth
by Industry and Sub-Sectors

Industry Super and Sub-Sectors	Share	2019F	2020F	5-Year Forecast Average	Long-Term Trend
Super Sectors Growing FASTER than All Super Sectors WTD Average in 2020					
Leisure and Hospitality	11.2%	3.7%	3.6%	2.9%	Down
Trade, Transportation and Utilities	18.3%	3.5%	3.3%	2.7%	Down
Information	1.9%	3.5%	3.3%	3.0%	Down
Financial Activities	5.7%	3.5%	3.3%	2.7%	Down
All Super Sectors WTD Average by Share		**2.70%**	**2.88%**	**2.32%**	**Down**
Super Sectors Growing SLOWER than All Super Sectors WTD Average in 2020					
Professional and Business Services	14.2%	3.1%	2.86%	2.27%	Down
Professional, Scientific and Technical Se	*6.3%*	*2.9%*	*2.7%*	2.3%	Down
Mining, Logging, and Construction	5.5%	2.6%	2.4%	1.8%	Down
Mining and Logging	*0.5%*	*2.6%*	*2.5%*	1.8%	Down
Construction	*5.0%*	*3.1%*	*2.9%*	*2.3%*	Down
Education and Health Services	15.9%	1.9%	1.9%	*2.2%*	Up
Manufacturing	8.4%	2.0%	1.7%	*1.1%*	Down
Other Services	3.9%	1.6%	1.4%	1.8%	Up

Source: U.S. Bureau of Labor Statistics



Drivers of Job and GDP Growth

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Which economic factors are helping to drive growth in jobs and GDP? ThinkWhy analysts believe the following are key determinants:

- Consumer Sentiment
- Personal Consumption
- Corporate Profits Growth
- Household Real Estate Equity

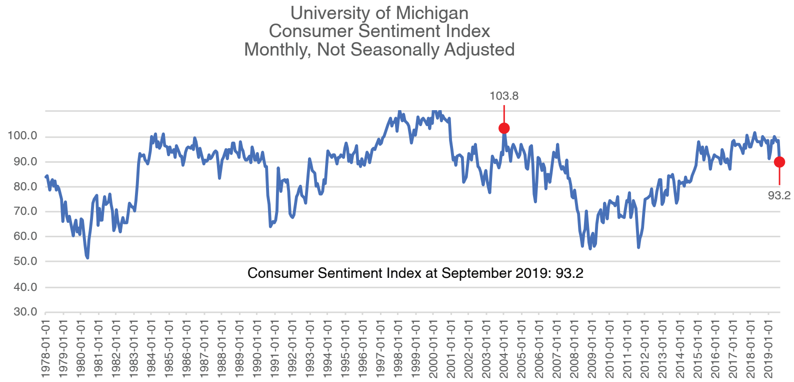
Consumer Sentiment: Trending Down

A major indicator of the strength and direction of the U.S. economy is detailed in the University of Michigan's monthly survey of consumer sentiment (UMCSENT). This data becomes a strategic business-planning resource as it captures consumers' feelings about their current financial situation, the economy and future opportunities. ThinkWhy recommends that you use this data to advise your strategic growth plans.

Consumer confidence leads to increased spending, which boosts the economy. When consumers are uncertain about the future, they tend to prioritize saving and make fewer discretionary purchases. Pessimistic sentiment weakens demand for goods and services, which impacts corporate investment, the stock market and employment opportunities, among other things.

The chart below indicates consumer sentiment hit a peak in January 2004 at 103.8 and began declining until it reached 75.5 in December 2007, the start of the Great Recession. Then in June 2009, the index hit its low at 70.8 – the end of the recession. The Bureau of Economic Research (BER), which determines U.S. business cycles, did not announce the Great Recession until September 20, 2010, almost three years after its start. While BER data is useful to identify general trends, the University of Michigan's monthly consumer sentiment survey is much timelier, and therefore, more relevant for business planning.

As of September 2019, the UMCSENT index was at 93.2, down from 100.1 in the prior year. While one month does not make a trend, the index should be closely followed for the remainder of the year. After October 2016, the index went back up into the mid-90s and low 100s for 33 months or until the August 2019 reading.



Source: Surveys of Consumers, University of Michigan, University of Michigan: Consumer Sentiment © [UMCSENT], retrieved from FRED, Federal Reserve Bank of St. Louis (October 10, 2019)

Key Indicator

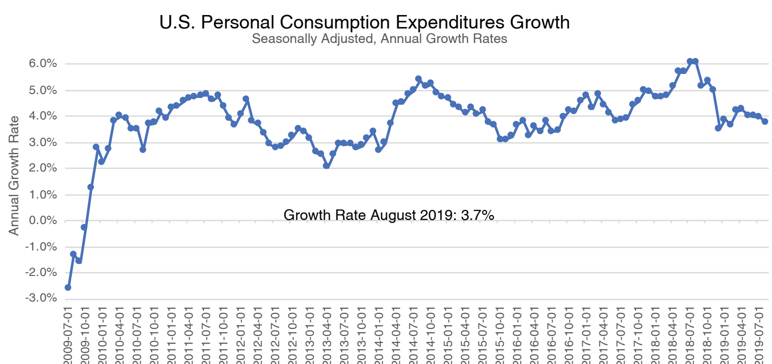
The UMCSENT index is timely and useful in planning for your business

Personal Consumption Expenditures: Trending Down

Consumer spending accounts for about 70 percent of the U.S. economy. Personal Consumption Expenditures (PCE), a measure of consumer spending, is published monthly by the Bureau of Economic Analysis (BEA). The BEA defines PCE as “the value of the goods and services purchased by, or on the behalf of, ‘persons’ who reside in the United States". Put simply, it tells us if consumers are spending more or less money than in the past. If so, the economy is growing; if not, the economy is declining. In addition to job and wage growth, PCE can provide additional insight into the economy's trajectory. Additionally, PCE figures are broken out further by goods, durable goods, non-durable goods and services, delivering a valuable tool for organizational planning.

The PCE in August 2019 was $14.658 trillion, a seasonally adjusted increase of 3.7 percent from one year ago. People are spending more money than they were in the year prior but at a decelerating rate.

The PCE growth rate is well below the August 2018 rate of 6.1 percent and the 2018 annual average rate of 5.2 percent, indicating that consumer spending in 2019 is slowing from 2018 and is expected to continue into 2020.



U.S. Bureau of Economic Analysis, Personal Consumption Expenditures [PCE]

Corporate Profits Growth: Trending Down

Corporate profits are an excellent indicator of the financial health of corporate America. These profits provide much of the funding for capital investments that raise productive capacity. By watching corporate profitability each quarter, you will have actionable intelligence about profit trends and how your company is performing against this benchmark.

Based upon the latest report of corporate profits after tax, 2Q 2019, released September 26, 2019, corporate profits after tax* growth is slowing. The magnitude of this slowdown is more evident when 1Q and 2Q 2019 growth is compared to that of the same periods a year ago.

Corporate Profits After Tax* Growth

	2018	2019	Absolute Change
1Q	10.3%	-2.9%	-13.2%
2Q	8.3%	-2.7%	-11%

*Growth in Corporate Profits After Tax with Inventory Valuation Adjustment (IVA) and Capital Consumption Adjustment (CCAdj), Quarterly, Seasonally Adjusted Annual Rate

Source: U.S. Bureau of Economic Analysis, Corporate Profits After Tax with IVA and CCAdj

Household Real Estate Equity: Trending Down

Each quarter, the Federal Reserve reports the value of the equity that households have in their real estate. This is an important variable to follow, especially if you have a business-to-consumer business. If household equity in real estate is growing, homeowners will be more confident in their current financial condition. If homeowners are more confident in their financial condition, they are more likely to continue spending.

Based upon the latest report for 2Q 2019 dated October 10, 2019, homeowners' equity in real estate reached $18.7 trillion, up from $17.4 trillion in 2Q 2018, an increase of 9.9 percent. While this increase is excellent, the rate of growth is trending downward from the 12.0 percent growth that occurred from 2Q 2017 to 2Q 2018. The downward trend is more obvious when you compare it to the 20.7 percent growth rate in 4Q 2013.

Home Equity Growth

Trending Down

Homeowners' Equity in Real Estate

	2018	2019	Absolute Change
1Q	12.0%	11.2%	-0.8%
2Q	12.0%	9.9%	-2.1%

Source: Board of Governors of the Federal Reserve System (US), Households; owners' equity in real estate

Demographic Trends

Why are demographic trends important to a business? Companies and their markets are made up of people. The demographics of employees and customers can provide actionable data to positively impact corporate performance. Demographics can include age, sex, migration and immigration, education and income levels, marital status, occupation, ethnicity, birth and death rates, family and household characteristics, average age at marriage and many other characteristics.

Change in Population by Age

By 2025, the greatest increase in the U.S. population will be in the 64-year-old and greater demographic. This age group will account for 18.1 percent of the population, up from 16.3 percent in 2019. However, the less than 18-year-old demographic will comprise the largest share of the population in 2025, making up 21.3 percent. The decline of the less than 18-year-old age group, from 22.4 to 21.3 percent, is the result of very slow population growth of 0.4 percent from 2019 to 2025. The 25- to 54-year-old age group will account for a strong increase of 4.56 million people by 2025, but its share of the population drops from 39.1 percent in 2019 to 38.3 percent in 2025.

			Population (000)				
			Change in Population		**Change in Share of Population**		
Age Group	2019F	2025F	No.	%	2019F	2025F	Change
<18	73,855	74,158	303	0.4%	22.4%	21.3%	-1.1%
18-24	30,482	30,939	457	1.5%	9.2%	8.9%	-0.3%
25-34	45,940	49,184	3,244	7.1%	13.9%	14.1%	0.2%
35-44	41,729	43,326	1,598	3.8%	12.6%	12.4%	-0.2%
45-54	41,470	41,188	(282)	-0.7%	12.6%	11.8%	-0.8%
55-64	43,032	46,743	3,711	8.6%	13.0%	13.4%	0.4%
>64	53,881	63,270	9,389	17.4%	16.3%	18.1%	1.8%
Total Population	330,389	348,809	18,420	5.6%	100.0%	100.0%	0.0%

Generational Shift

The U.S. population is getting older and working longer. Businesses can use this trend to their advantage. For example, older employees with more work experience and institutional knowledge can be used to train younger workers. Also, older workers may prefer more flexible or part-time work schedules, allowing companies to get the benefit of their knowledge at a lower cost than retaining them full-time.

Generation Z is on track to be the most educated and technologically advanced generation. According to the Pew Research Center, a person is considered part of Generation Z if they were born in 1997, with the oldest persons turning 22 in 2019. While in their teens, technological innovations, such as the smartphone, unlimited internet connectivity, social media platforms, on-demand entertainment and video gaming, were incorporated into their daily lives. Millennials and older generations have had to adapt to these innovations. Thus, persons in Generation Z may have better problem-solving skills earlier in their career, allowing them to fit into a broad range of tech functions at your company.

Initiating a recruitment program targeting new college graduates, or Generation Z, is more of a necessity than ever before due to the historically low unemployment rate.

Female Labor Force Participation Rate Increases

The Labor Force Participation (LFP) rate among three groups of prime-age women rose to record highs in September 2019. The rates of change in LFP for these groups of women were far greater than those of men in the comparable age groups.

Women 25-34 years of age had the largest gain in LFP at 3.4 percent.

Labor Force Participation Rate by Age and Gender

	Age Group					
	Men			Women		
	25-34	35-44	45-54	25-34	35-44	45-54
2008	91.6%	92.3%	88.0%	75.2%	76.2%	76.1%
Low Rate Date	88.7% 2014	90.3% 2015	85.5% 2014	73.4% 2015	74.0% 2013	73.4% 2015
Current Rate	88.9%	90.9%	87.4%	76.8%	76.2%	75.6%
Change	0.2%	0.6%	1.9%	3.4%	2.1%	2.2%

Change in Rate: September 2019 versus Lowest Rate
Lowest Rate is based upon the period from 2008 to September 2019
Source: ThinkWhy and Bureau of Labor Statistics

Prime working-age women also account for the most births. In 2018, women aged 25-34 gave birth to 2.18 million children. Additionally, the average age of first marriages for men and women was 30 and 28, respectively.

Prime Working-Age Mothers Account for Most Births

	Births		Birth Rate		Change: Births		Change: Birth Rate
Age of Mother	2017	2018	2017	2018	Number	%	Number
All Ages	3,855,500	3,788,235	60.3	59.0	-67,265	-1.7%	-1.3
10-14	1,731	1,917	0.2	0.2	186	10.7%	0.0
15-19	194,377	179,607	18.8	17.4	-14,770	-7.6%	-1.4
20-24	764,780	725,157	71.0	67.9	-39,623	-5.2%	-3.1
25-29	1,123,577	1,098,330	98.0	95.2	-25,247	-2.2%	-2.8
30-34	1,091,917	1,089,980	100.3	99.6	-1,937	-0.2%	-0.7
35-39	554,796	566,519	52.3	52.6	11,723	2.1%	0.3
40-44	114,813	117,339	11.6	11.8	2,526	2.2%	0.2
45-54	9,323	9,572	0.9	0.9	249	2.7%	0.0

Source: U.S. Bureau of Labor Statistics, ThinkWhy

	Men's Age at First Marriage	Women's Age at First Marriage
2018	29.8	27.8
2017	29.5	27.4

The trends affecting women's participation in the labor force include:

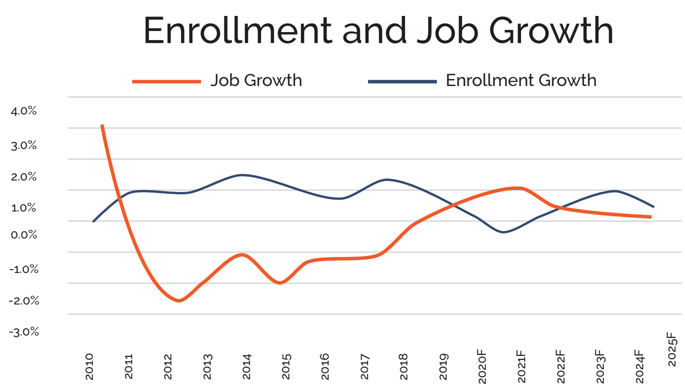
- First marriage and childbirth at older ages.
- Rising wages for women as companies try to close the gender pay gap.
- Expansion of parental benefits by many companies.
- Increases in women's skills and education levels; this trend is expected to continue as women outpace men in entering higher-education institutions.
- Desire to make more money to pay off student loan debt and accumulate retirement savings.

These trends suggest that businesses should continue to recruit prime-age women.

Education

Labor force education trends are important to the success of your company. The better educated your workforce, the better your company can take advantage of opportunities that arise.

There is an 85 percent correlation between enrollment in educational institutions and job growth. When the economy is good, people tend to enter the labor market. When the economy is receding, people tend to enter educational institutions to improve job skills or prepare for career changes.



Source: ThinkWhy, BLS, IPEDs

Historical Education Highlights, 2010-2019

Enrollment in U.S. higher education institutions has been declining, with the strong job market attracting potential students. The rising cost of higher education is also negatively impacting enrollment.

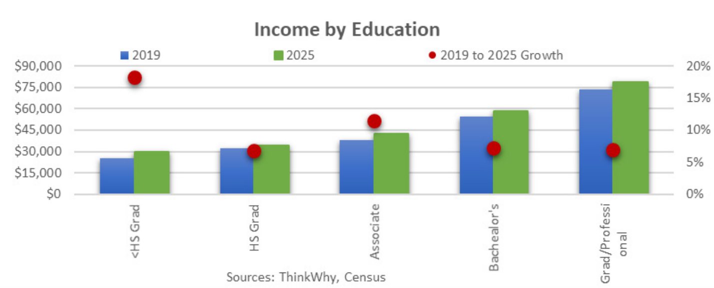
Forecast Education Highlights, 2020-2025

2019 is likely the last year that enrollment growth will decelerate in this business cycle. With job growth slowing this year and forecasted to decrease in 2020 and 2021, enrollment may start to grow as job seekers enroll in educational programs to expand their skill set or change career paths.

Income for those with and without a college degree differs by about $25,000 a year. This income spread is expected to remain level through 2025. The value of a college degree compared to the cost of attending is still a consideration for students and will put a strain on enrollment growth going forward.

ThinkWhy recommends that companies consider recruiting from skill-based alternative programs like General Assembly and other non-traditional platforms, particularly for tech jobs. As non-traditional education programs cost less than traditional programs, more students will be attracted to these schools, particularly with wage growth slowing during the forecast period.

ThinkWhy recommends that companies consider recruiting from skill-based alternative programs like General Assembly and other non-traditional platforms, particularly for tech jobs. The lower aggregate cost to learn a specific skill will drive students to these schools, particularly with wage growth slowing during the forecast period.



The Outlook At-A-Glance

- Long-term job growth is expected to slow significantly starting late 2020 and will reach a trough during Q3 of 2021. As U.S. workers are saving more and have higher net worth, some due to home-price growth, a slowdown or even a recession in 2021 would be short-lived and less extensive than previous downturns.

- Expect Professional Business and Technical Services and Healthcare industries to continue to lead job gain and growth in the U.S.

- Mining and Logging and Trade, Transportation and Utilities sectors will continue to struggle to add jobs in the near term.

- Expect gradual job growth increases during late 2021, with the magnitude of growth expected to increase during 2022 and continue at a robust trajectory through 2024.

- After the expected low in Q3 2021, the availability of labor is expected to loosen up along with new workers joining the labor force.

- Historically low unemployment rates will force the U.S. economy into a skilled-labor shortage, creating a hurdle for higher nominal job gain despite healthy U.S. economic fundamentals.