



**Comprehensive  
U.S. Labor Force &  
Unemployment  
Report:  
Q3 2017**

**31 October 2017**

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# Jobenomics Comprehensive U.S. Labor Force & Unemployment Report: Q3 2017

By: Chuck Vollmer

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31 October 2017

**Executive Summary.** While U.S. stock market, unemployment and consumer confidence statistics suggest that the U.S. economy is doing well, underlying economic, labor force and income/wage statistics present an entirely different picture. This dichotomy is discussed in two comprehensive Jobenomics reports published quarterly. Both reports take a deep dive on economic, community, business and workforce statistics, characteristics, challenges and trends.

This 115-page Jobenomics U.S. Labor Force & Unemployment Report: Q3 2017 report focuses on the current U.S. unemployment and underemployment situation, labor force losses, economic sustainability, income inequality, voluntary workforce departures and non-working population, welfare, and the small business creation solution.

The top three conclusions of this report are from an unemployment perspective, policy-makers, decision-leaders and the American public must address three major trends: (1) growing voluntary workforce departures, (2) contingent workforce expansion, and (3) below average wage earner issues for the vast majority of American citizens.

The 175-page quarterly Jobenomics Comprehensive U.S. Labor Force & Employment Report: Q3 2017 report focuses on current U.S. labor force and employment statistics, fastest growing industries and occupations, business and job creation, economic growth, income opportunity, contingent workforce, education and training, workfare, and Jobenomics' city and state initiatives.

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## Executive Summary

**Jobenomics** deals with economics of business and job creation. The Jobenomics National Grassroots Movement's goal is to facilitate an environment that will create 20 million new middle-class U.S. jobs within a decade. Jobenomics prioritizes its efforts on citizens at the base of America's socioeconomic pyramid with emphasis on engaging more women, minorities, youth (Gen Z/Y) and the working poor in the business and employment process. While Jobenomics is designed as a U.S. small business and job creation movement, other nations expressed interest in starting similar movements.

Over 20 million people have been reached by Jobenomics via its media, website and lectures, and has garnished wide-spread support for its economic development, workforce development and business development efforts. Jobenomics website (<https://jobenomics.com/>) and blog (<https://jobenomicsblog.com/>) now averages 30,000 monthly page views with the majority of viewers spending a half hour or more online, not including the vast amount of research hours spent studying e-books and special reports that is downloaded at no charge (free) from the website.

## Jobenomics Books and E-Books



Jobenomics books, e-books, and special reports consist of extensive research on economic/business/workforce development, emerging national labor force and urban renewal initiatives, quarterly employment and unemployment analyses, and specialty reports on the U.S. labor force, emerging U.S. and global business and labor force trends, and economic growth, sustainability and security.

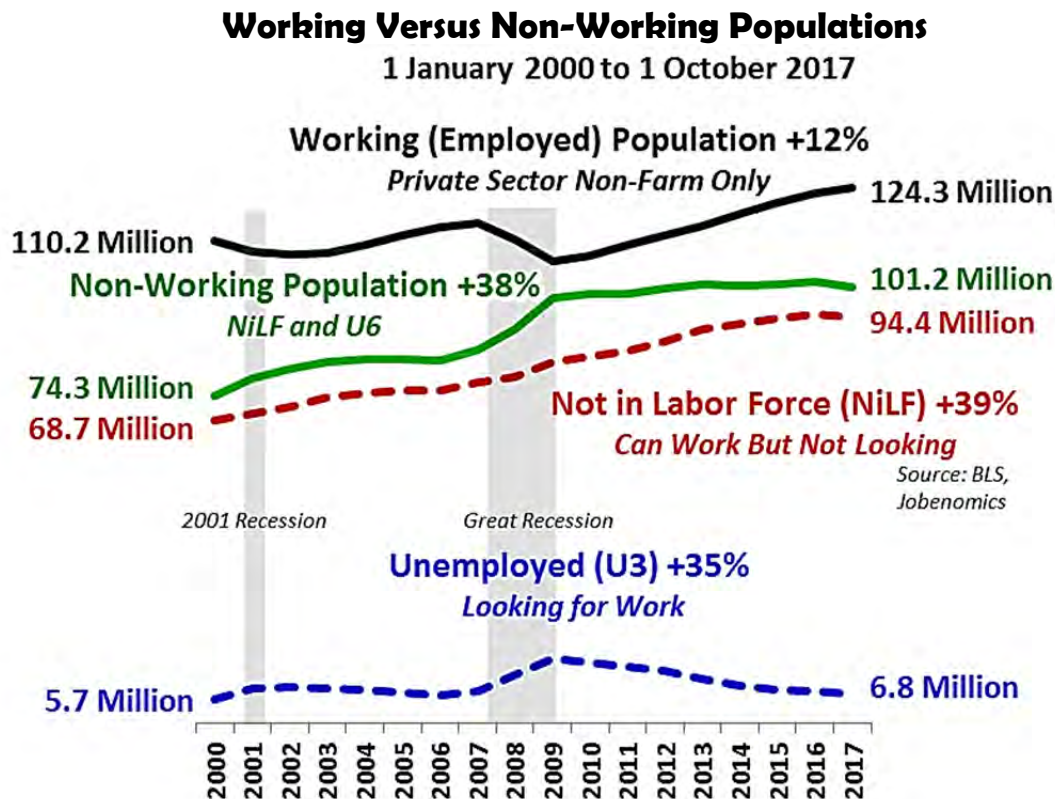
While Jobenomics addresses big business and government employment trends, its principal focus is on highly-scalable small and self-employed businesses that employ the vast majority of Americans and create the vast amount of new jobs. Jobenomics has a dozen state and city initiatives that are led by community leaders to mass-produce highly-scalable small businesses and jobs. To accelerate small business creation, Jobenomics is working with community leaders to promulgate local workfare initiatives, implement community-based business generators to mass-produce startup businesses, and provide workforce skills-based training, certification and funding programs.

**Current State of U.S. Unemployment.** According to the U.S. Bureau of Labor Statistics (BLS), the U.S. labor force has three statistical categories: Employed, Unemployed and Not-in-Labor-Force. Understanding the dynamics between these categories is required to understand the American labor force and ultimately the U.S. economy.

From an unemployment perspective, policy-makers, decision-leaders and the American public must address three major trends: (1) growing voluntary workforce departures, (2) contingent workforce expansion, and (3) below average wage earner issues that are becoming more and more pervasive.

**Sooner or later, the American public will figure out that it is theoretically possible for the United States to have a zero rate of unemployment while simultaneously having zero people employed in the labor force.** The reason for this disquieting statement involves how government measures unemployment. To be classified as unemployed, one must be looking for work. Able-bodied Americans who quit looking and voluntarily depart the workforce are classified in a nebulous and obscure Not-in-Labor-Force category that few people comprehend.

Six unemployment categories (U1 through U6) are reported monthly by the BLS. Each category requires that an individual must be actively looking for work. These categories are calculated as a percent of the Civilian Labor Force (Employed + Unemployed). The BLS also calculates the number of able-bodied adults who can work, but are not looking for work, in a category entitled Not-in-Labor-Force, which is not part of the Civilian Labor Force (160 million), but part of the larger Civilian Noninstitutional Population (256 million), which is a subset of the entire U.S. population (326 million).



The latest BLS Employment Situation Summary<sup>1</sup> reports that 124.3 million Employed Americans work in the private sector versus 101.2 million citizens who are Unemployed (U6, defined as total unemployed and underemployed people who are looking for work) and Not-in-Labor-Force (NiLF, defined as able-bodied adults who are capable of working but not looking for work).

From 1 January 2000 to 1 October 2017, the working population (Private Sector Employed) increased by 12% compared to a 38% rise in the non-working population (U6/NiLF). The non-working population briefly exceeded the working population during and after the 2007-2009 Recession. While recent trends in the non-working population have improved in 2017, it is highly likely for the non-working population to outnumber the working population within the next decade if an economic downturn occurs.

The U6 population includes the long-term unemployed (U1), job losers and temporary workers (U2), total unemployed workers (U3), discouraged workers (U4), marginally attached workers (U5) and underemployed workers who work part-time because they can't find a full-time job. It is important to remember that a person must be actively looking for work to be counted as unemployed in any of the six BLS unemployment categories.

In January 2000, the U6 population was 9,953,000. The height of the Great Recession, U6 peaked at 26,440,000 in April 2010, an increase of 166% since the turn of the Century. Since peak through Q3 2017, the U6 dropped by 12.6 million people to 13,772,000. Despite all the political fanfare, 13,375,118 U6 unemployed, underemployed and marginally-attached citizens still represents 39% more people out of the labor force than existed 17 years ago at the turn of the Century when the U.S. population was 282 million (it is 326 million as of October 2017).

Able-bodied adults who are neither employed nor unemployed are not in the labor force. Those who **have no job** and are **no longer looking** for a job are accounted by the BLS in the Not-in-Labor-Force category. From 1 January 2000 through Q3 2017, the Not-in-Labor-Force cadre grew from 68,655,000 to 94,417,000, an increase of 25,762,000 million citizens, a 39% increase, who more often than not are dependent on public/familial assistance. Today, citizens in the Not-in-Labor-Force exceed those enrolled in the Total Unemployed (U6) category by 7.1-times and 13.5-times higher than the number in "Officially" Unemployment (U3) category. This great disparity is rarely addressed by policy-makers, analyzed by decision-makers or mentioned by the media's talking-heads, all of whom focus almost entirely on the Official U3 Unemployment Rate that is at a post-recession low of 4.2%.

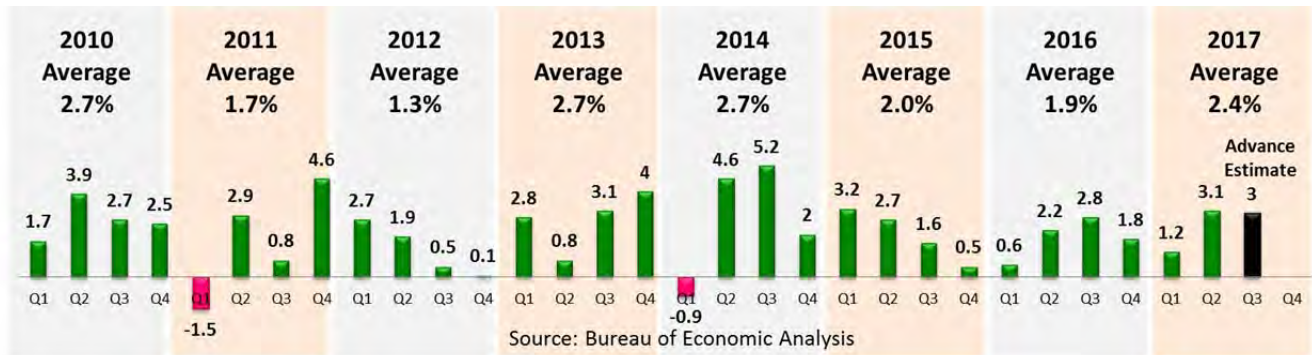
The ability to work should be the determining factor for unemployment as opposed to whether or not a person is looking for work. Jobenomics contends that all able-bodied Americans who can work, regardless if they are looking or not, should be considered "**functionally**" unemployed. Functional is defined as capable of working. An able-bodied adult who is capable of working but chooses not to work should be considered unemployed for the same reason that "discouraged", "marginally attached" and "part-time workers for economic reasons" are included in the U4, U5 and U6 Unemployment categories.

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<sup>1</sup> U.S. Bureau of Labor Statistics, Employment Situation Summary, <http://www.bls.gov/news.release/empsit.nr0.htm>

In order to achieve a sustainable economy and labor force, U.S. policy-makers and decision-leaders must shift their attention from U3/U6 unemployment to include understanding the reasons that able-bodied Americans, who are capable of working, are no longer looking for work. When as many people drop out of the labor force as enter it, the U.S. economy cannot grow as it should.

## Real GDP Quarterly Percent Change This Decade



According to the U.S. Bureau of Economic Analysis ([BEA](#)), during the post-recession recovery period from Q1 2010 through Q3 2017, U.S. GDP averaged 2.32%. In 2015 and 2016, U.S. GDP grew by subpar rates of 2.0% and 1.9% respectively. During the first three quarters of the Trump Administration, GDP averaged 2.16%.<sup>2</sup>

**Q1 2017's** GDP final estimate was a subpar 1.2%—up from an abysmal “advance” estimate of 0.7%, equal to the 1.2% “second” estimate, and down from the 1.4% “third” estimate. Regardless of the estimate, Q1 GDP data was not good news for the new Trump Administration. However, these low percentages can be rationalized as a carryover from the previous Administration.

**Q2 2017's** GDP “second” estimate (latest) is 3.0%, up from an “advance” estimate of 2.6%—a significant improvement over Q1 and a good sign for President Trump's stated [goal](#) of raising U.S. GDP growth to 4.0%.<sup>3</sup>

In regard to other prognosticators, the Federal Reserve Bank of Atlanta's [GDPNow](#) forecast model for **Q3 2017** is 3.2%, down from an initial 4.0% forecast on 1 August 2017. The “Blue Chip” survey of the bottom 10 and top 10 leading business economists forecast that Q3 2017 growth will eventually fall between 2.2% and 3.2%.<sup>4</sup>

As far as the future, many economists feel that a recession (two quarters below 0% GDP growth) is likely. The United States averages 3 financial downturns and 1.7 recessions per decade over the last 7 decades. This decade (2010s) has been recession-free largely due to government deficit spending, increasing money supply, low interest rates, stimulus packages, bailouts, buyouts and foreign

<sup>2</sup> U.S. Bureau of Economic Analysis, Table 1.1.1 Percent Change From Preceding Period in Real Gross Domestic Product, 1 September 2017, <https://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=3&isuri=1&903=1>

<sup>3</sup> White House Website, <https://www.whitehouse.gov/bringing-back-jobs-and-growth>

<sup>4</sup> The Federal Reserve Bank of Atlanta's, GDPNow, <https://www.frbatlanta.org/cqer/research/gdpnow.aspx>

investment. Now that the era of easy money is coming to an end, an anemic U.S. economy will have to operate under its own steam.

The period of frail GDP growth from 2000, has dramatically impacted the American middle-class and the U.S. labor force that gained 15,623,000 workers but lost 26,158,000 through voluntary departures. To make matters worse, the U.S. population grew by 43 million citizens since year 2000, which places a greater burden on taxpaying workers. For most American workers, real wages (purchasing power) have not increased for decades and are not projected to improve soon.

Another alarming trend involves the dramatic rise in the contingent workforce, which now stands at 60 million employed workers, or 40% of the Private Sector Labor Force. The BLS defines the contingent workforce as the portion of the labor force that has “nonstandard work arrangements” or those without “permanent jobs with a traditional employer-employee relationship”. The Jobenomics U.S. Contingent Workforce Challenge Report estimates that the contingent workforce could be the predominant source (over 50%) of employed U.S. labor by 2030, or sooner, depending on economic conditions and seven ongoing workforce trends that are addressed in detail in the Jobenomics Contingent Workforce Challenge report.<sup>5</sup>

The contingent workforce is comprised of two general categories: core and non-core. Core contingency workers include agency temps, direct-hire temps, on-call laborers and contract workers. Core workers generally represent low wage earners that have nonstandard work arrangements out of necessity, often subjected to exploitation, and usually not entitled to traditional employer-provided retirement and health benefits. The non-core category includes independent contractors, self-employed workers and standard part-time workers who work fewer than 35 hours per week. Non-core workers generally seek nonstandard work agreements as a matter of choice.

Jobenomics views the non-core workforce as a positive economic force that will grow significantly via the emerging digital economy. On the other hand, Jobenomics views the core contingency as a major labor force challenge as more and more citizens work for substandard wages, become frustrated, and seek alternative sources of income. The contingent workforce is addressed in this analysis from a Not-in-Labor-Force perspective and discussed in detail from an overall employment perspective in the Jobenomics Comprehensive U.S. Labor Force & Employment Report.

Contingent work, low wages and the attractiveness of the U.S. welfare/means-adjusted earnings programs are fueling the rapid and increasing exodus of citizens from the U.S. labor force. In 2014, 86% of all Americans (including workers with earnings, Not-in-Labor-Force and those that cannot work, such as children, caregivers, disabled, elderly, etc.) made below average income.

A major reason for Not-in-Labor-Force growth is due to the growing attractiveness of welfare and entitlement benefits. The U.S. federal government funds 126 separate programs targeted at low income people. State, county, and municipal governments offer an additional \$400 million worth of welfare and healthcare programs. Combined welfare benefits pay more than minimum wage jobs in 35 states—in many cases, significantly more. 35 U.S. states offer welfare packages (not including

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<sup>5</sup> <http://jobenomicsblog.com/wp-content/uploads/2016/05/U.S.-Contingent-Workforce-Challenge-4-April-2016.pdf>

Medicaid) more generous than the most lavish and liberal European countries. 39 states pay welfare recipients more than the starting wage for a secretary and in 11 states more than the first year wage for a teacher.

Once a person becomes dependent on welfare, transition to workfare becomes difficult. Loss of critical workforce skills increase proportionally to the length of time a person is not working. Most of the 5.6 million open employment positions in the United States are due to a deficit of skills and the capability to perform effectively in a working environment. Prolonged dependency generates anger, grievances, activism, violence and counter-cultural lifestyles.

In today's consumption-based and market-driven society, there is never enough public or familial assistance to satisfy the financially disaffected. Consequently, those who need additional income often turn to temporary jobs, barter, the underground economy as well as illicit lifestyles (gangs, drugs and crime) rather than legitimate forms of long-term employment. Jobenomics contends that workfare is the only reasonable alternative to welfare. The problem is how to motivate and facilitate this transition.

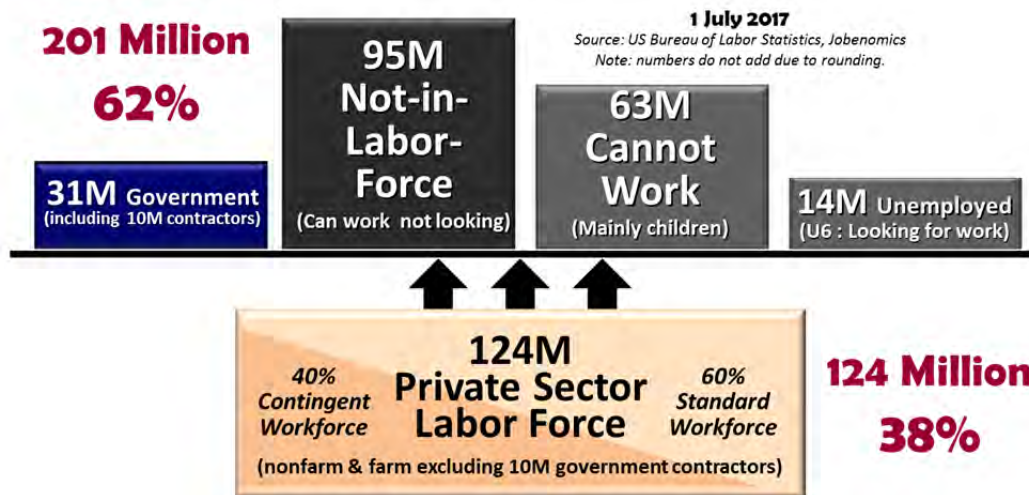
The solution to growing America's economy, healing the middle-class and strengthening the labor force involves putting the U.S. small business engine into over-drive. Energizing existing businesses and creating new small and self-employed businesses could create 20 million net new jobs within a decade. To this end, Jobenomics is working with a number of cities to implement Jobenomics Community-Based Business Generators to mass produce startup businesses.

Jobenomics Community-Based Business Generators mass-produce startup businesses by: (1) working with community leaders to identify high-potential business owners and employees, (2) executing a due diligence process to identify potential high quality business leaders and employees, (3) training and certifying these leaders and employees in targeted occupations, (4) creating highly repeatable and highly scalable "turn-key" small and self-employed businesses, (5) establishing sources of startup funding, recurring funding and contracts to provide a consistent source of revenue for new businesses after incorporation, and (6) providing mentoring and back-office support services to extend the life span and profitability of businesses created by the Jobenomics Community-Based Business Generators.

While the overall goal is to mass-produce small businesses, the Jobenomics Community-Based Business Generator will help all people who enter the program to find meaningful employment. Many of the initial candidates are likely to prefer working for existing companies rather than going through the Jobenomics process. Anticipating this, Jobenomics will implement a "pipeline" to connect these individuals who have undergone some level of due diligence to companies that are hiring. A common complaint that Jobenomics often hears from companies is that they have a very hard time finding good people who want to work and who have the right attitudes/aptitude for work. Consequently, Jobenomics Community-Based Business Generators will utilize a nationally recognized pipeline system that has recently matched hundreds of thousands of veterans with employers.

**In summary,** the U.S. economy cannot be sustained by only 38% of the population that is eroding in terms of size, wages and income potential.

## 325 Million Total U.S. Population



Today, 38% of Americans who work financially support the rest of the country. Out of a total population of 325 million Americans, 124 million private sector workers support: 31 million government workers and government contractors, 95 million able-bodied people who can work but chose not to work, 63 million who cannot work (caregivers, children, retired and institutionalized citizens), and 14 million unemployed, underemployed and marginalized citizens. Of the 124 million private sector workers, approximately 60% are standard full-time workers and 40% are contingency workers who make substantially lower wages, often without benefits, than their full-time counterparts.

If American policy-makers and decision-leaders are serious about revitalizing the eroding middle-class, they must address the growing voluntary workforce departures, contingent workforce and below mean income issues. Jobenomics believes that the place to start is with demographics with the greatest need and potential (i.e., women, minorities, new workforce entrants and the growing cadre of poor white males). Jobenomics suggests that policy-makers, in both parties, and decision-makers should make solutions to these labor force issues their top priority.

## Understanding Unemployment Statistics

**Unemployment and Policy/Decision-Making.** Before launching into a discussion on “unemployment”, one must understand how unemployment is defined by various institutions and economists who use unemployment as a metric for policy- and decision-making.

The U.S. Bureau of Labor Statistics defines an unemployed person as an individual aged 16 years and older who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons who were waiting to be recalled to a job from which they had been laid off need not have been looking for work to be classified as unemployed.<sup>6</sup>

The U.S. Federal Reserve System (U.S. central bank has responsibility for setting U.S. monetary policy to promote maximum employment, stable prices, and moderate long-term interest rates) targets unemployment’s “natural rate” of unemployment consistent with the Fed’s Non-Accelerating Inflation Rate of Unemployment objective. From the Fed’s perspective, the rate of inflation tends to decrease if the official unemployment (BLS U3) rate rises above the natural rate of unemployment. Conversely, the inflation rate tends to rise if the official unemployment (BLS U3) rate falls below the natural rate of unemployment.

As of Q3 2017, the Fed’s natural rate of unemployment is 4.74%.<sup>7</sup> Now that the BLS U3 unemployment rate is 4.2%, as of October 2017, American’s can expect that the Fed will soon raise the federal funds (interest) rate causing a corresponding increase in discount rates (rate that the Fed charges its depository banks and thrifts), prime rates (interest rates offered by banks to their most valued customers) and finally bank rates (lending rates of commercial banks such as mortgage, automobile and other loans).

The natural rate of unemployment is a determinant of “tight or slack labor markets” —a Fed macroeconomic labor market definition closely watched by investment banks, policy-makers and economists. For example, Goldman Sachs, a major New York-based investment banking and securities firm, forecast that the job market is going “from the weakest labor market in postwar U.S. history to one of the tightest” in 2018, which will “likely to boost wages and inflation more broadly, requiring the Federal Reserve to raise interest rates four times next year.”<sup>8</sup> While higher wages are good news for skilled-workers, those without adequate workforce skills will be forced out of the labor force at greater rates.

The amount of slack (idleness) or tightness in the economy is essentially a measure of the quantity of unemployed resources. Perhaps the best way to visualize this is by the number of unemployed persons per job opening.

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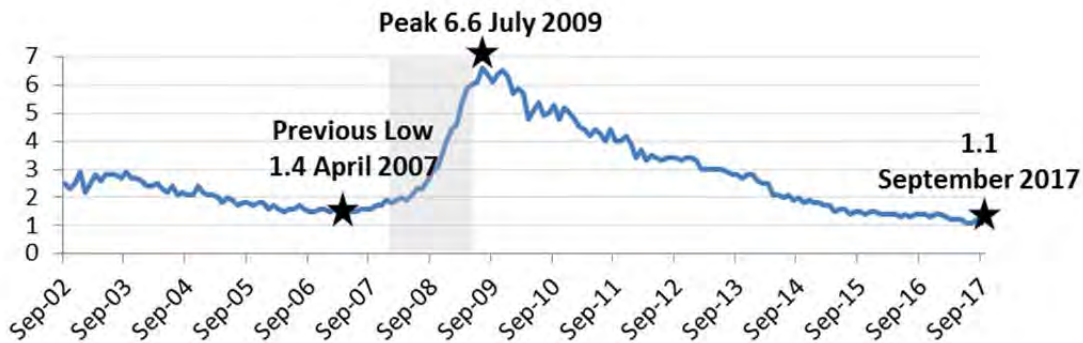
<sup>6</sup> BLS, Unemployed persons (Current Population Survey), <https://www.bls.gov/bls/glossary.htm#U>

<sup>7</sup> Federal Reserve Bank of St. Louis, FRED Economic Data, Natural Rate of Unemployment (Short-Term), <https://fred.stlouisfed.org/series/NROUST>

<sup>8</sup> Bloomberg Markets, Goldman Sachs Sees Four 2018 Fed Rate Hikes as U.S. Growth Gains, <https://www.bloomberg.com/news/articles/2017-11-18/goldman-sachs-sees-four-2018-fed-rate-hikes-as-u-s-growth-gains>

## Number of Unemployed Persons per Job Opening

Source: BLS, Job Openings and Labor Turnover Survey<sup>9</sup>



Prior to the Great Recession, the number of unemployed person per job opening reached a low of 1.4, which rapidly zoomed upward to a peak of 6.6 unemployed persons per open job. As of September 2017 there a 1.1 unemployed for every open job. From a Federal Reserve perspective, when spread between the number of unemployed and the number of open jobs is large, there is a lot of slack in the economy and monetary policy should be aggressive. The slackness caused by the Great Recession forced the Fed to be extremely aggressive investing/buying over \$11 trillion worth of securities and other stimulus packages (see U.S. Government Financial Bailouts, Buyouts & Stimuli Since 2008 chart on page 34) as well as lowering the federal reserve interest rate to near zero. Now that the labor market has become very tight (1.1-to-1), the Fed is “easing” monetary policy to prevent overheating and inflation.

Economists generally divide unemployment into two broad categories of **voluntary unemployment** and **involuntary unemployment**. Voluntary unemployment refers to individuals who leave their jobs willingly in search of other employment. Involuntary unemployment involves fired or laid off personnel who have to look for another job.

These categories can be further subdivided into “**frictional unemployment**” (in-between jobs), “**cyclical unemployment**” (related to business cycles during recessionary periods and periods of economic growth), and “**structural employment**” (loss of jobs due to lack of jobs at the going wage rate or the lack of employable skills). Jobenomics adds a fourth category called, “**functional unemployment**”, which includes able-bodied adults who choose not to work (not looking) alongside those who are looking for work but cannot find a job.

Jobenomics contends that structural and functional unemployment are two of the greatest challenges facing American economic and labor force growth. The economy cannot grow if as many workers are sidelined from the labor force than enter it, which is the case today in the United States.

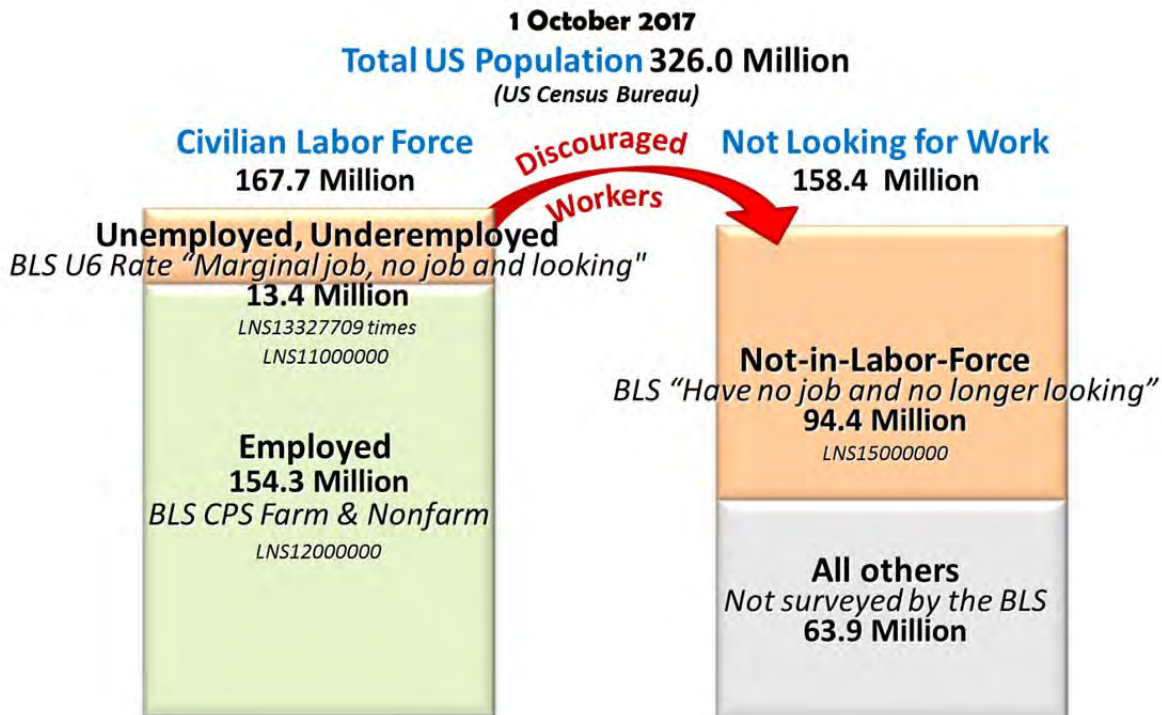
**U.S. Government Labor Force Categories.** A basic knowledge on how the U.S. government defines labor force and accounts for the different labor force categories is essential to understanding labor

<sup>9</sup> BLS, Job Openings and Labor Turnover Survey, Number of unemployed persons per job opening, seasonally adjusted, <https://www.bls.gov/charts/job-openings-and-labor-turnover/unemp-per-job-opening.htm>

force statistics and interpreting fact from fiction. According to BLS, the basic concepts involving employment and unemployment are straight forward.<sup>10</sup>

- People with jobs are **employed**.
- People are **unemployed** if they do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work. Marginally employed and underemployed personnel, who are actively looking for work, are reported as a subset of the unemployed category, and generally include part-time workers who work less than 35 hours per week.
- Able-bodied adults who are neither employed nor unemployed are not in the labor force. Those who have no job and are no longer looking for a job are counted as **Not-in-Labor-Force**.

## U.S. Labor Force Overview



Therefore, as shown:

- **Civilian Labor Force = Employed + Underemployed + Unemployed = 167.7 million.**
- **Not Looking for Work = Not-in-Labor-Force + All Others = 158.4 million.**

The **Civilian Labor Force** is defined as citizens, who are either employed or unemployed looking for a job, are at least 16 years old, are not serving in the U.S. armed forces and are not institutionalized.

- **Employed.** The U.S. labor force consists of 154.3 million employed people in the farm (approximately 2.6 million direct on-farm employees and 1.0 million direct forestry/fishing

<sup>10</sup> BLS, How the Government Measures Unemployment, [http://www.bls.gov/cps/cps\\_htgm.htm#unemployed](http://www.bls.gov/cps/cps_htgm.htm#unemployed)

employees<sup>11</sup>) sector, ten non-farm private sector goods-producing and service-providing industries, and three government sectors (federal, state and local).<sup>12</sup>

- **Unemployed.** There are 13.4 million unemployed and underemployed people who are looking for work. The BLS reports on six unemployed categories from U1 long term employed to U3 officially unemployed to U6 total unemployed.

The **Not Looking for Work** group includes **Not-in-Labor-Force** and **All Others** in the U.S. population.

- **Not-in-Labor-Force** includes people (over 16 years old) such as discouraged workers, citizens who choose not to work, welfare recipients, students, retired, stay-at-home caregivers, etc. There are 94.4 million in the BLS' Not-in-Labor-Force category that has grown substantially in the last 17-years.
- **All Others.** Remaining 63.9 million citizens who are not included in the previous three categories are classified as All Others by Jobenomics.

The BLS does not survey or report this "All Others" category, which includes children, elderly, disabled, institutionalized (approximately 4 million citizens in correctional institutions, mental institutions, detention facilities, skilled nursing facilities, hospice facilities and other long-term care living arrangements), and serving in the U.S. armed forces (approximately 1.3 million on active duty).

**Labor Force Gains versus Labor Force Losses.** Most Americans assume that a good economy creates jobs. This is a backward assumption. Good jobs create an economy. However, jobs do not create jobs. Businesses do. Therefore, it is imperative to have a robust business sector that creates an ever increasing amount of robust goods-producing and service-providing jobs to power a growing economy. Moreover businesses do not exist unless it satisfies a national (or international) need or is responding to emerging national or global economic trends.

The U.S. labor force produces goods and services that grow the economy, which is one of the primary indicators used to gauge the health of a country's economy. The U.S. economy is measured by an income approach (compensation, profits, and taxes), a production approach (value of everything that is produced) or an expenditure approach (consumption, investment, government spending and net exports). All three approaches depend on robust goods-producing and service-providing jobs.

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<sup>11</sup> United States Department of Agriculture, Economic Research Service, Ag and Food Sectors and the Economy, <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/ag-and-food-sectors-and-the-economy.aspx>

<sup>12</sup> The BLS has two monthly surveys that measure employment levels and trends: the Current Population Survey (CPS), also known as the household survey, and the Current Employment Statistics (CES) survey, known as the payroll or establishment survey. CPS and CES estimates have distinct employment definitions and methods. Generally speaking, the CES estimates approximately 7 million fewer employees than the CPS since CES data excludes agriculture and related employment, the unincorporated self-employed, unpaid family and private household workers and workers absent without pay from their jobs. Both surveys include only civilian employees in Government employment and exclude uniformed members of the armed services. [http://www.bls.gov/web/empsit/ces\\_cps\\_trends.pdf](http://www.bls.gov/web/empsit/ces_cps_trends.pdf)

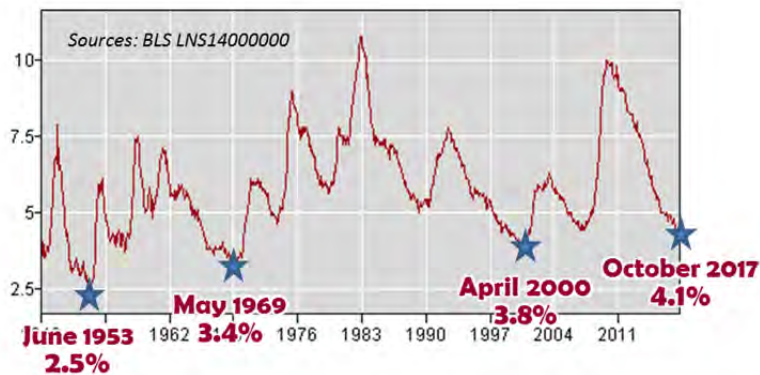
## U.S. Labor Force Gains and Losses Since 2000

as of 1 October 2017

	Working Population	Non-Working Population		Net Labor
	Employment Gain/Loss	Not-in-Labor Force Gain/Loss	Unemployed (U3) Gain/Loss	Force Gains- Losses
Last Month (September 2017)	(33,000)	(368,000)	(331,000)	666,000
Trump Era (Jan 2017-Present)	1,334,000	(685,000)	(728,000)	2,747,000
Last Year	1,777,000	(91,000)	(1,103,000)	2,971,000
Post Recession (Jan 2010-Present)	16,881,000	10,604,000	(8,297,000)	14,574,000
Obama Era (2009-2016)	10,479,000	14,722,000	(3,757,000)	(486,000)
Bush II Era (2001-2008)	2,115,000	9,892,000	5,652,000	(13,429,000)
Since Year 2000	15,878,000	25,762,000	1,148,000	(11,032,000)
	BLS CES Report (CES0000000001) Table B-1 Seasonally Adjusted	BLS Not-in-Labor- Force Report (LNS15000000) Seasonally Adjusted	BLS Unemployed Report (LNS13000000) Table A-10	

The Bureau of Labor Statistics (BLS) Employment Situation Summary reported that **last month (September 2017)**, 33,000 Americans fewer were employed in the U.S. labor force, 368,000 less Americans were recorded in the BLS' "Not-in-Labor-Force" category (a category reserved for Americans who can work but choose not to work), and 331,000 less citizens were categorized as officially unemployed, for a net workforce gain of 666,000 Americans—a **relatively positive report despite the fact that the employment category lost jobs**.

### Historical Unemployment Rate (U3) Lows



The significant decrease in the unemployment rolls marked a new post-Great Recession unemployment rate low of 4.2% not seen since February 2001. From a historical unemployment rate perspective, the post-WWII low was 2.5% in June 1953, followed by 3.4% in May 1969 and 3.8% in April 2000. Notwithstanding, the official U3 employment is a rather artificial percentage since it depends on people "actively looking" for work. Once one quits looking, regardless of reason, they are enrolled in the Not-in-Labor Category. Consequently, it is important to gauge labor force strength by looking at a combined U3/NiLF number versus the number of Employed citizens.

From a **Trump Era** perspective, during the 9-months (January through September 2017) of the Trump presidency, employment gains amounted to 1,334,000 workers, for an average of 148,222 per month, which is below the threshold of 250,000 jobs per month that most economists believe is

necessary for healthy economic growth. However, the Not-in-Labor-Force (i.e., capable of working but not looking) and U3 Unemployment (i.e., no job but looking for work) categories have shown significant reductions, 685,000 and 728,000 respectively. Apparently, the new Administration is giving people a reason to rejoin the workforce. Moreover, the 4.2% unemployment rate in September 2017 is a 16-year low not recorded since January 2001.

Since the **end of the Great Recession**, from 1 January 2010 to 1 October 2017, the U.S. labor force net gain was 14,574,000 workers. 16,881,000 entered the labor force, 10,604,000 voluntarily departed, and 8,297,000 fewer people were officially unemployed.

During the 8-years/96-months of the **Obama Era** (1 January 2009 through 31 December 2016), the U.S. labor force lost a net 486,000 jobs. 10,479,000 entered the labor force, 14,722,000 voluntarily departed, and 3,757,000 fewer people were recorded as officially unemployed. It is important to remember that President Obama took office during the last 6-months of the Great Recession.

During the 8-years/96-months of the **GW Bush Era** (1 January 2001 through 31 December 2008), the U.S. labor force lost a net 13,429,000 jobs, which included the first 12-months of the Great Recession, the 8-months of the 2001 Recession (March 2001–November 2001), as well as the aftermath of the September 11, 2001 attacks. 2,115,000 entered the labor force, 9,892,000 voluntarily departed, and 5,652,000 fewer people were recorded as officially unemployed.

From the **beginning of 21<sup>st</sup> Century** (1 January 2000 to 1 October 2017), the American labor force is weaker by a net 11,032,000 workers.

While highly-advertised statistics (e.g., stock market, official unemployment rate and consumer confidence index) suggest that the U.S. economy is booming, underlying small business, labor force and wage statistics are not doing nearly as well. As of 1 October 2017, the BLS reports that the private sector workforce consists of 124,322,000 workers or only 38% of the total population of 326 million. Of the private sector workforce, approximately 60% are traditional full-time workers and 40% are contingent workers (part-timers, freelancers, independent contractors, etc.) who generally-speaking earn far less income than traditional workers and often receive little or no benefits. The U.S. economy cannot be sustained without strengthening of the U.S. private sector's labor force.

While the United States has made incremental improvements to the labor force over the last  $7\frac{3}{4}$  post-Great Recession years, the damage done to the labor force over the previous  $17\frac{3}{4}$  years has considerably weakened our country economically and ushered in an era where many people are choosing non-working lifestyles than ever before. A bulk of the people who were no longer counted as unemployed simply quit looking as opposed to finding employment. The American middle-class is being hollowed out and may be at the tipping point. According to the Pew Research Center, "Once in the clear majority, adults in middle-income households in 2015 were matched in number by those in lower- and upper-income households combined."<sup>13</sup> Small business and job creation must be made a priority.

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<sup>13</sup> Pew Research Center, The American Middle Class Is Losing Ground, No Longer The Majority and Falling Behind Financially, 9 December 2016, [http://www.pewsocialtrends.org/files/2015/12/2015-12-09\\_middle-class\\_FINAL-report.pdf](http://www.pewsocialtrends.org/files/2015/12/2015-12-09_middle-class_FINAL-report.pdf)

## Unemployment and Not-in-Labor-Force Categories

To understand Unemployment and Not-in-Labor-Force Categories, one must have a basic knowledge on how data is collected by the government. The two primary sources of data are from joint Census Bureau/BLS household surveys and BLS industry surveys. The “Household” survey collects data via the Current Population Survey (CPS) and the “Establishment” payroll survey via the Current Employment Survey (CES).<sup>14</sup>

- CPS Household data is collected monthly from a sample from over 60,000 American households and includes comprehensive data on the labor force, the employed, and the unemployed classified by such characteristics as age, sex, race, family relationship, marital status, occupation and industry attachment. The CPS also provides some data on the characteristics and past work experience of those not in the labor force. The CPS includes all workers, nonfarm and farm, and estimates current employment at 153.2 million.
- CES Establishment data is collected monthly from a sample of approximately 143,000 businesses and government agencies representing approximately 588,000 worksites throughout the United States. The primary statistics derived from the CES survey are monthly estimates of employment, hours, and earnings for the nation, states, and major metropolitan areas. The CES includes only nonfarm workers and estimates current employment at 146.4 million. Unemployment and Not-in-the-Labor-Force are not addressed by the CES.

CPS and CES data are reported in the BLS monthly Employment Situational Report and various BLS Supplements to the Current Population Survey. The monthly BLS Employment Situational Report is a widely read government report used for policy-making in the United States. BLS Supplements are also important since they provide a significant level of detail for public and private analyses. It is important to recognize that these BLS reports and supplements are focused mainly on standard workers who are employed by nonfarm, industry-centric and employer-providing firms. Agricultural (farms and ranches) and nonstandard (contingent) worker data is sparse and episodic due to historical precedent and budgetary constraints.

### BLS Framework of the U.S. Civilian Population

Source: BLS, Table A-1. Employment Status of the Civilian Population<sup>15</sup>

Current BLS Framework	1-Oct-17
<b>Civilian Noninstitutional Population</b>	<b>255,562,000</b>
• <b>Civilian Labor Force</b>	<b>161,146,000</b>
Labor Force Participation Rate	63.1%
◦ <b>Employed</b>	<b>154,345,000</b>
Employment-Population Ratio	60.4%
◦ <b>Unemployed (U3)</b>	<b>6,801,000</b>
Unemployment rate	4.2%
• <b>Not-in-Labor-Force</b>	<b>94,417,000</b>
Persons who currently want a job	5,628,000

<sup>14</sup> U.S. Bureau of Labor Statistics, Household vs. Establishment Series, <http://www.bls.gov/lau/lauhvse.htm#hvse>

<sup>15</sup> BLS, Table A-1, Employment status of the civilian noninstitutional population 16 years and over, 1981 to date, <http://www.bls.gov/web/empstat/cpseea01.htm>

The BLS Employment Situational Report's focal point is on the "Civilian Noninstitutional Population" that consists of three main categories ("Employed", "U3 Unemployed" and "Not in Labor Force"). As of 1 October 2017, the Civilian Noninstitutional Population was 255,562,000, which equates to 78% of all American citizens. The Civilian Labor Force was 161,146,000, which includes 154,345,000 Employed and 6,801,000 Unemployed citizens. The Not-in-Labor-Force totaled 94,417,000 citizens.

The Civilian Noninstitutional Population consists of labor force data garnished from the U.S. Census Bureau for all citizens 16 years of age and older residing in the 50 States and the District of Columbia, who are not inmates of institutions (penal, mental facilities, homes for the aged) and who are not on active duty in the Armed Forces. Civilian Labor Force includes persons classified as employed or unemployed looking for work. Not-in-Labor-Force does not include persons employed or unemployed who are not looking for work.

The overwhelming amount of BLS statistical labor force data is centered on statistics relating to the 153.2 million nonfarm Employed Americans, who are accounted for in three general sectors (private sector goods-producing, private sector services-providing and government) that are subdivided into 13 industry groups and subdivided into 130 industries. To a lesser degree, BLS Employment Situational Report contains data on Unemployed. To a minimal degree, the BLS reports on people who are categorized in a single Not-in-Labor-Force category that is reserved for able-bodied Americans who can work but chose not to work for a variety of reasons.

### Unemployment Rate & Not-in-Labor-Force Categories

BLS Category	U.S. Bureau of Labor Statistics (BLS) Table A-15, LNS11000000, LNS15000000	Current Rate	Currently Unemployed
		1-Oct-17	
Can Work And Are Looking			
U1	Persons unemployed 15 weeks or longer, as a percent of the civilian labor force	1.7%	2,739,482
U2	Job losers and persons who completed temporary jobs, as a percent of the civilian labor force	2.1%	3,384,066
U3	Total unemployed, as a percent of the civilian labor force ("official" unemployment rate)	4.2%	6,977,000
U4	Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers	4.5%	7,251,570
U5	Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers	5.1%	8,218,446
U6	Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers ("total" unemployment rate)	8.3%	13,375,118
Can Work But Are <u>Not</u> Looking			
"Not in the Labor Force"	Those who have no job and are not looking for one	Rate Not Calculated by BLS	94,417,000

As shown, six Unemployment categories (from U1 Long-Term Unemployed to U3 Officially Unemployed to U6 Total Unemployed and Underemployed) are reported monthly by the BLS.<sup>16</sup> Each Unemployment category requires that an individual must be actively looking for work. These categories are calculated as a percent of the Civilian Labor Force.

The BLS also calculates the number of adults (over age 16) that can work but are not looking for work in a category entitled Not-in-Labor-Force.

Americans tend to overemphasize one statistic—the U3 rate or “official” unemployment rate (highlighted in red above). The Not-in-Labor-Force category is almost never mentioned in the media or used in policy-making, which is wrongheaded from both labor force and economic perspectives.

The Not-in-Labor-Force (94,417,000) is 13.5-times the size of U3 Unemployed (6,977,000) and exerts much greater strain on the U.S. economy and labor force. In addition, Not-in-Labor-Force citizens tend to remain unemployed much longer—often for life. 95% of the Not-in-Labor-Force BLS survey respondents say that they “do not want a job now”.<sup>17</sup>

From a Jobenomics perspective, Not-in-Labor-Force should be classified as unemployed in the same way that marginalized and underemployed citizens are included in the U6 category. Determination whether a person is counted as unemployed should not depend on subjective, and often whimsical, survey questions used to appraise people’s employment intentions.

The four BLS survey questions that government interviewers use to record a person as unemployed include (the bolded words are emphasized when read by the interviewers):<sup>18</sup>

- (1) Do you currently want a job, either full or part-time?
- (2) What is the main reason you were not looking for work during the **last 4 weeks**?
- (3) Did you look for work at any time during the last 12 months?
- (4) **Last week**, could you have started a job if one had been offered?”

If a respondent answers “yes” to all four questions, that person is considered Unemployed. If the respondent answers “no” to any question, that person is assigned to the Not-in-Labor-Force.

Evaluating whether a person wants to work rather than the ability to work is like treating a symptom rather than the disease. Sooner or later, the American people will figure out that the current way our government calculates unemployment is seriously flawed. **Under the current system, it is theoretically possible for the United States to have a zero rate of unemployment while simultaneously having zero people employed in the labor force.** Since Not-in-Labor-Force personnel

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<sup>16</sup> BLS, Table A-15, Alternative measures of labor utilization, <http://www.bls.gov/news.release/empsit.t15.htm>

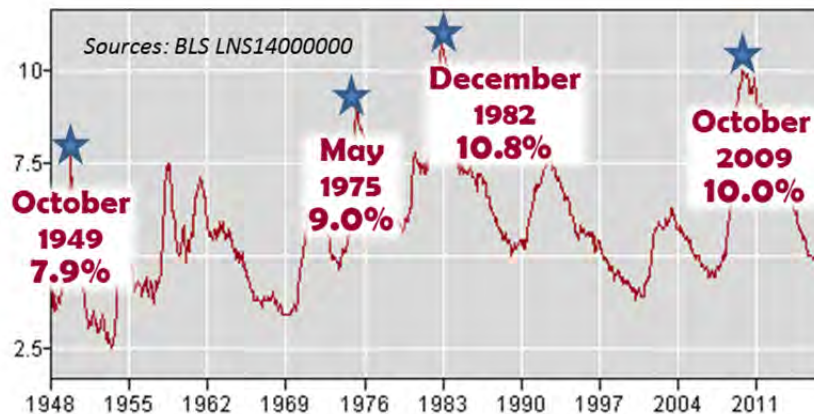
<sup>17</sup> BLS, Table A-1. Employment status of the civilian population by sex and age, <http://www.bls.gov/webapps/legacy/cpsatab1.htm>

<sup>18</sup> BLS, Who is not in the labor force?, [http://www.bls.gov/cps/cps\\_htgm.htm#nilf](http://www.bls.gov/cps/cps_htgm.htm#nilf)

are not counted as unemployed, the official unemployment rate could theoretically be zero if all unemployed people simply quit looking for work and joined those in the Not-in-Labor-Force. Easier yet, just have all respondents answer “no” to one of the four BLS survey questions, and Americans can have an instantaneous zero rate of unemployment.

**U3 Unemployment Category.** Unemployment rates have been highly volatile over the last fifty years.

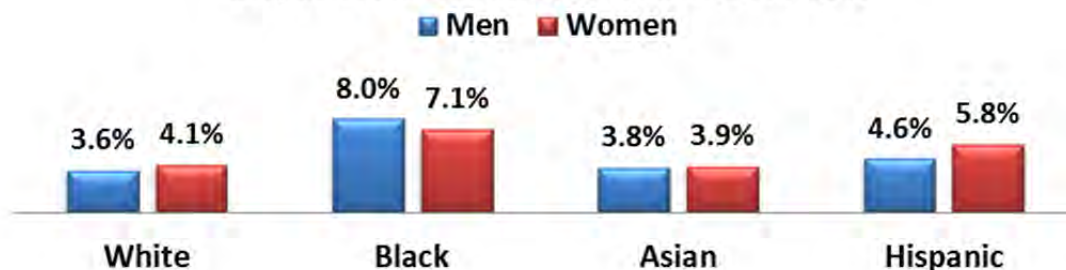
## Historical Unemployment Rate (U3) Highs



The official U3 unemployment rate peaked shortly after WWII and declined to a historical low within a decade. Subsequent peaks happened in early 1960s, mid 1970s after the OPEC oil shock, and the early 1980s after the tech boom bubble broke, which set the all-time U3 rate peak of 10.8% in December 1982. During the go-go decades of the 1990s and 2000s the unemployment rate stayed relatively low until the Great Recession that commenced in December 2007 and ended in June 2009. In the aftermath of the Great Recession the unemployment rate peaked at 10.0%.

## U3 Unemployment Rate by Age, Sex, Race & Ethnicity

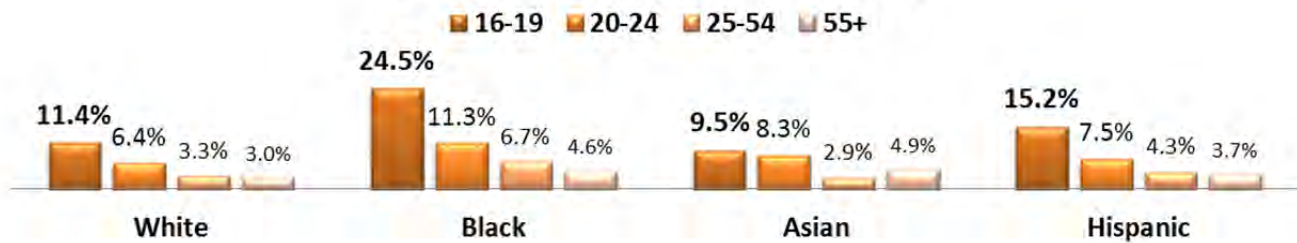
BLS, 16 Years and Older, as of 1 October 2017



The official U3 unemployment rates, as of 1 October 2017, are shown according to age (16 years and older), sex, race and ethnicity. Black and Hispanic Americans are more likely to be unemployed than White or Asian Americans. White and Black males are more likely to be unemployed than females, while Asian and Hispanic females are more likely to be unemployed than their male counterparts. As a group, Blacks were the most unemployed with a top unemployment rate of 8.0% for Black men and 7.1% for Black women.

## U3 Unemployment Rate by Age: Both Sexes

BLS, 16 Years and Older, as of 1 October 2017



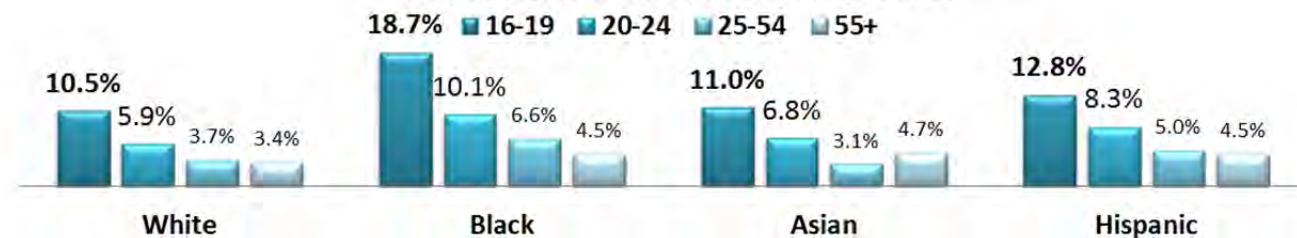
## U3 Unemployment Rate by Age: Males Only

16 Years and Older, as of 1 October 2017



## U3 Unemployment Rate by Age: Females Only

BLS, 16 Years and Older, as of 1 October 2017



Younger Americans in all age groups are more likely to be unemployed as opposed to older Americans. Unemployment rates for youth aged 16 to 19 are four times higher than the national average.

From a Jobenomics perspective, the United States has more of a youth unemployment problem than a total unemployment challenge. If the 16 to 19 year old group was more actively engaged in productive activity (education, training, public service or employment), the U3 unemployment rate would likely be reduced, not only for this age group but for later age groups as these youth mature.

As a result of these statistics, the Jobenomics Generation Z (Screenagers) initiative is focused on training, employment and business development efforts for youth that are 21 years and younger. In addition, the Jobenomics Workforce Training & Certification Initiative, Jobenomics Community-Based Business Generator Plan, Jobenomics Contingency Workforce Initiative, Jobenomics Minority-Owned Business Plan and Urban Mining Initiatives are oriented to low-income, at-risk youth and young adults.<sup>19</sup>

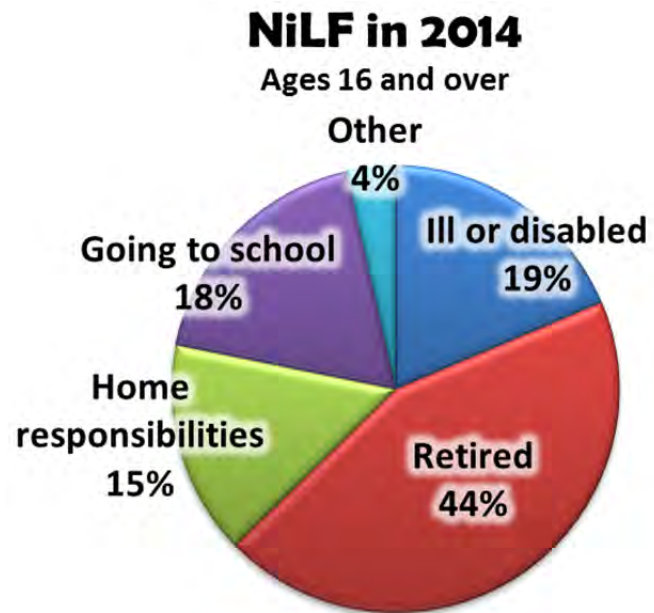
<sup>19</sup> See Recent Posts at Jobenomics website, <http://jobenomicsblog.com/> or <http://jobenomics.com/>

**Not-in-Labor-Force Category.** The explosive growth of people in the Not-in-Labor-Force Category is the most serious challenge facing American policy-makers and the American public. Woefully, little is being done to address this challenge.

The Current Population Survey (CPS) and its Annual Social and Economic Supplement (ASEC) provide limited insight into why people are not in the labor force. During the bi-annual CPS ASEC survey, people who did not work at all in the previous year are asked to give the main reason they did not work. According to the BLS, “Interviewers categorize survey participants’ verbatim responses into the following categories: ill health or disabled; retired; home responsibilities; going to school; could not find work; and other reasons.”<sup>20</sup>

In 2014, out of a total 87 million people who did not work or did not look for work: 44.1% were retired (CPS does not provide an estimate of the number of people who are retired and has no standard definition of what it means to be retired), 18.6% were ill or disabled, 15.5% had home responsibilities, 18.3% were going to school and 3.5% expressed other reasons.

Since the BLS is primarily interested in whether people are working or looking for work, they do not ask why people are not seeking a job. “Our survey is designed to measure work and looking for work,” said Karen Kosanovich, a BLS economist. “We do not focus on people outside of the labor market.”<sup>21</sup>



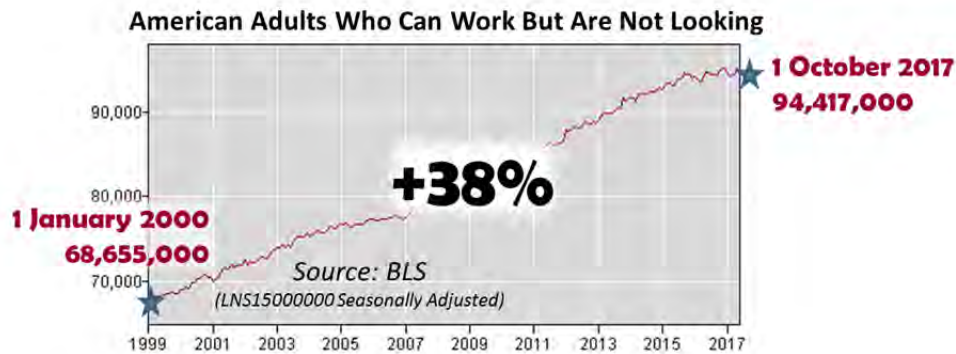
One should not perceive Kosanovich’s comment as trite but as factual. The BLS was established in 1884 during the advent of the Industrial Revolution to collect information on labor employment.

Despite its many attempts to expand its statistical analysis beyond the established thirteen vertical industrial supersectors, the BLS has been unable to obtain approval and funding to explore in depth analysis of emerging non-industrial areas such as the Not-in-Labor-Force, Contingent Workforce and the Digital Economy—all of which are transforming the U.S. economy and labor force. Horizontal supersectors, like Energy and Healthcare that crosscut many of the thirteen vertical industries, also need attention. For example, Healthcare is touted to account for 18% of U.S. GDP but the United States lacks a system-of-systems statistical picture of the various sectors of the healthcare ecosystem.

<sup>20</sup> BLS, Beyond the Numbers, People who are not in the labor force: why aren't they working?, December 2015, <http://www.bls.gov/opub/btn/volume-4/people-who-are-not-in-the-labor-force-why-arent-they-working.htm>

<sup>21</sup> Washington Post, 16 September 2016, <https://www.washingtonpost.com/news/fact-checker/wp/2016/09/16/trumps-absurb-claim-that-92-million-americans-represent-a-nation-of-jobless-americans/>

## Not-in-Labor-Force Growth



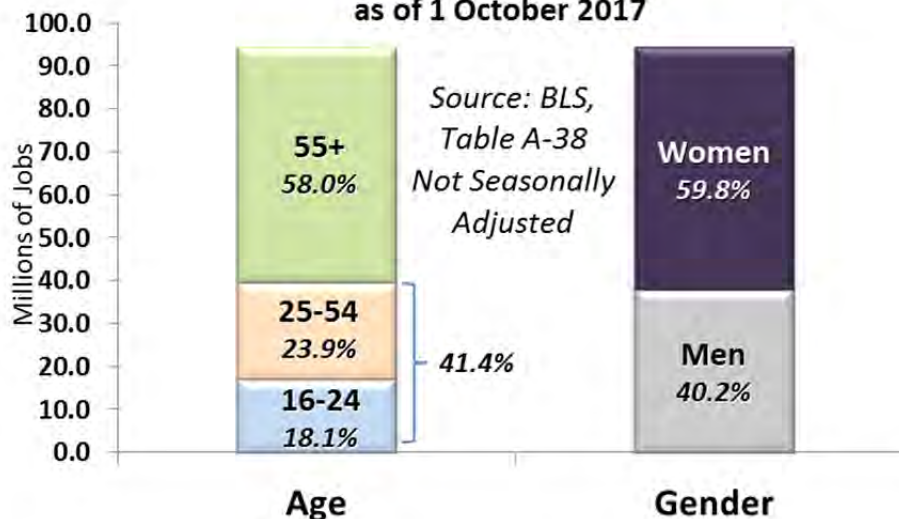
### Growth Rate:

Since 2000 (21 <sup>st</sup> Century) =	+25.8 Million
Obama Era (Since 2009, 96-months) =	+14.7 Million
Since 2010 (Post Recession Era) =	+10.6 Million
Trump Era (Since 2017, 9-Months) =	-685 Thousand
Last Month =	-368 Thousand

According to BLS data<sup>22</sup>, those in the Not-in-Labor-Force category (those that can work but don't) has surged consistently since year 2000 by 25.8 million people, a growth rate of 38%. During the post-recovery 10.6 million voluntarily departed the workforce. On the other hand, during the 9-months of the Trump Administration people have been returning to the workforce with a gain of 685,000 workers.

## Not-in-Labor-Force Demographics

as of 1 October 2017



In terms of age, the Not-in-Labor-Force includes 54.8 million people 55 years+ (58.0%), 23.6 million 25-to-54 year olds (23.9%), and 17.1 million 16-to-24 year olds (18.1%). In terms of gender, Not-in-Labor-Force includes 56.5 million women (59.8%) and 38.0 million men (40.2%).

<sup>22</sup> BLS, Table A-16, Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted, <http://www.bls.gov/webapps/legacy/cpsatab16.htm>

## “Functional” Unemployment

Labor Force		1 October 2017		Unemployed	
Category	Definition	Percent	Millions		
Unemployed (BLS U6)	Unemployed or underemployed who are looking for work		13.4		
BLS "Not in labor force"	Have no job and are not looking		94.4		
Total U6 Unemployed + Not-in-Labor-Force (BLS)			107.8		
% Total US Population (Census Bureau)			326.0	33%	

Jobenomics contends that all able-bodied Americans who can work but don't work, regardless if they are looking or not, should be considered **“Functionally Unemployed”**. Functional is defined as capable of operating or working. An able-bodied adult who is capable of working but chooses not to work should be considered unemployed for the same reason that “discouraged”, “marginally attached” and “part-time workers for economic reasons” are included in U4, U5 and U6. Jobenomics further contends that unemployment rates should be reported as a percentage of the entire population as opposed to the Civilian Labor Force, which is a rather arbitrary number based on the willingness to work or look for work. If calculated against the entire U.S. population, the combined rate would be 33%, which is still significantly higher than advertised 4.2% U3 or 8.3% U6 unemployment rates.

Jobenomics would not eliminate the old U-Rate system, but institute a complimentary reporting system based on population and the capability to work. By focusing on functional unemployment (U6 and Not-in-Labor-Force), as opposed to U3 unemployment, policy-makers and the American public could make better decisions regarding labor force participation, tax revenue generation and entitlement/welfare expenditures.

The ability to work should be the determining factor for unemployment as opposed to whether or not a person is looking for work. The “functional” unemployment rate would be dramatically higher if the Not-in-Labor-Force group was included in the unemployment calculation.

### U3, U6 and NiLF Functional Unemployment

As of 1 October 2017		Rate Comparison	
	Number		
Total U.S. Population	325,995,000		100.0%
Civilian Labor Force	161,146,000	100.0%	49.4%
Functionally Unemployed (NiLF & U6)	107,792,118	66.9%	33.1%
Not-in-Labor-Force (NiLF)	94,417,000	58.6%	29.0%
U6 Total Unemployed	13,375,118	8.3%	4.1%
U3 "Officially" Unemployed	6,977,000	4.3%	2.1%

Hypothetically, using current BLS methodology, the Functional Unemployed rate would equate to 66.9% of the Civil Labor Force. From a Jobenomics standpoint, percentages should be calculated from the Total U.S. Population that would make the Functional Unemployed rate 33.1%. Comparing

all able-bodied Americans capable of working to the entire population would be a better economic metric that could lead to better decision-making. Today's decision-making concentrates on the 4.2% U3 Unemployment rate that excludes the vast majority of Americans who are marginally attached to the workforce and those that can work but choose not to work for a variety of reasons.

In order to achieve a sustainable economy and labor force, U.S. policy-makers and decision-leaders must shift their attention from focusing on U3 unemployment to understanding the reasons that able-bodied Americans who are capable of working are no longer looking for work and joining the ranks of those no longer in the U.S. labor force.

In addition to taking a more expansive view on unemployment, greater emphasis on employment statistics would be helpful. More attention needs to be placed on existing employment metrics like the Employment-to-Population Ratio that uses the total population as the standard.

### Able-Bodied People without a Job

Over Age 16 (Millions)	Peak Unemployment		
<i>Source: Bureau of Labor Statistics</i>	1 Oct 2009	1 Oct 2017	Δ
<b>Unemployment Rate (U3)</b>	10.0%	4.2%	-5.8%
<b>Number of Unemployed (U3)</b>	15.4	6.8	-8.6
<b>Number in Not-in-Labor-Force</b>	82.8	94.4	11.7
<i>Total</i>	<b>98.1</b>	<b>101.2</b>	<b>3.1</b>

During the Great Recession and the post-recession recovery, policy-makers focused almost entirely on U3 metrics that do not provide an accurate picture of the labor force or the economy. As shown, shortly after the Great Recession, the U3 rate reached its peak at 10.0% on 1 October 2009. Since then, the U3 rate has dropped to 4.2% that equates to 8.6 million fewer people unemployed. This post-recession low U3 rate is seemingly great news. However, this “great” news is mitigated by the fact that 11.7 million more citizens voluntarily departed the workforce over the same time period. Consequently, while America decreased its number of unemployed, it increased the number of its non-working, able-bodied, adults, for a net loss of 3.1 million employed workers—not so good news for an American population that is increasing by an average of 2.5 million new citizens per year.

In summary, from an overall labor force perspective, the U3 rate is a relatively poor indicator and undeserving of the amount of attention it receives. A combination of the U6 total unemployment and Not-in-Labor-Force denizens provides a truer picture of the unemployed, which will result in better policy and decision making.

**Labor Force Trends since Year 2000.** Labor force gain/loss comparisons from the start of the 21<sup>st</sup> Century are equally troubling from an economic stability standpoint since the growth rate of Not-in-Labor-Force category is growing over twice as fast as the Employed (farm and nonfarm) category.<sup>23</sup>

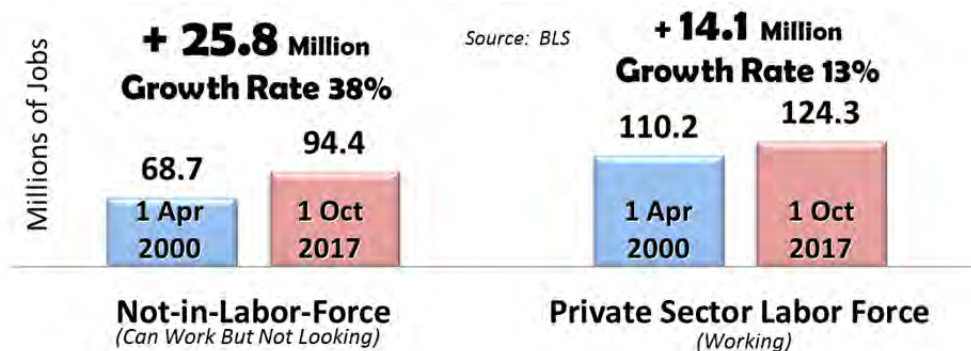
<sup>23</sup> BLS, Household Data (CPS), Table A-1, Employment status of the civilian population by sex and age, <http://www.bls.gov/webapps/legacy/cpsatab1.htm>

## Labor Force Trends since Year 2000



Labor force trends since year 2000 indicate that in terms of percentages, the Not-in-Labor-Force grew at the fastest rate (38%), followed by U3 Unemployed (20%) and Total Employed (15%). In terms of raw numbers, U3 Unemployed citizens increased by 1.1 million people compared to Total Employed growth of 19.8 million and Not-in-Labor-Force growth of 25.8 million. The U.S. economy is not sustainable as long as the unemployment and voluntary departure rates exceed people entering the labor force. Jobenomics projects that these trends will continue unabated in the foreseeable future unless the Trump Administration is able to achieve its bold plan of adding 25 million new jobs and increasing GDP to 4% over the next 10-years.

## Not-in-Labor-Force versus Private Sector Labor Force



Comparing the size of the Not-in-Labor-Force to the nonfarm private sector workforce also demonstrates the viability and sustainability challenges facing the U.S. labor force. This comparison is important since the nonfarm private sector provides the bulk of U.S. employment and tax revenue. In terms of percentages, the Not-in-Labor-Force has grown at almost 3-times the rate of the nonfarm private sector workforce (38% versus 13%).

If a financial downturn or recession happens, the Not-in-Labor-Force could eclipse the private sector labor force within the next decade. The probability of a financial downturn or recession is relatively high unless the Trump Administration can get U.S. economic growth in high gear.

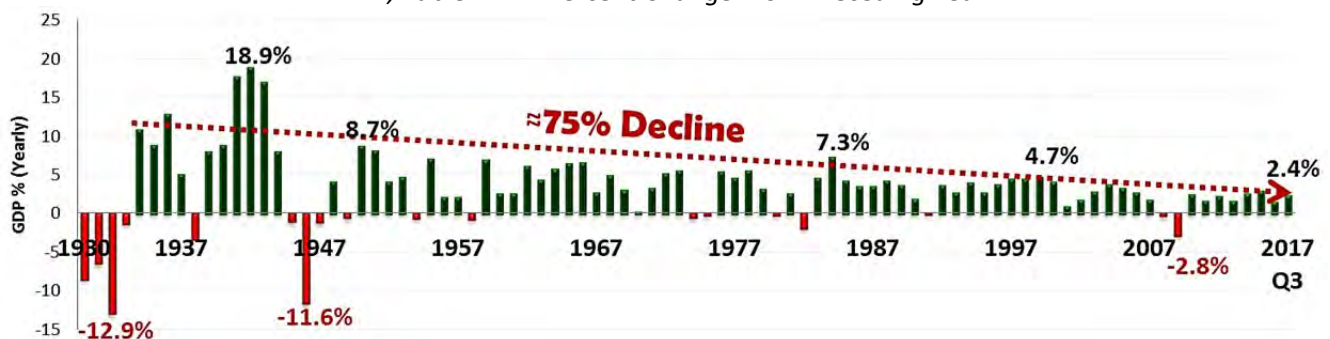
Many economists feel that a recession (two quarters of negative GDP growth) is likely. In January 2016, a Financial Times survey of 51 economists predicted a one-in-five chance of a U.S. recession in

the next 12 months.<sup>24</sup> In June 2016, J.P. Morgan Chase economists projected a 36% chance of a U.S. recession in 12 months.<sup>25</sup> In July 2016, Deutsche bank estimated a 60% chance of the U.S. entering a recession in the next 12 months.<sup>26</sup> In October 2016, Wall Street Journal's survey of economists placed a 60% likelihood of a U.S. recession within four years.<sup>27</sup> In June 2017, Goldman Sachs gives the United States a 25% chance of a recession with two years.<sup>28</sup> While these projections are only guesstimates, the theme is relatively consistent.

From a Jobenomics perspective a near-term recession risk remains low as long as the Administration is successful progresses towards its 4% GDP growth and 25 million new jobs goal. However, the volatility in the global political, economic, military and social/religious affairs could rapidly upend the U.S. economy. Consequently, the best insurance against a potential downturn is a robust economy, which means achieving solid GDP and labor force growth as America did in the past.

## U.S. GDP Growth History, by Year, Since Great Depression

BEA, Table 1.1.1. Percent Change From Preceding Year



As shown by the dotted red line, year-over-year U.S. GDP growth declined by approximately 75% over the last 9-decades. Reversing this downward trend line is an American socio-economic imperative.

During the Great Depression, U.S. GDP hit its nadir of a negative 12.9% growth in 1932—the year that President Franklin D. Roosevelt was elected. During FDR's first term in office, he instituted the "New Deal" that pumped significant amounts of federal government money to revive the economy. During FDR's second term in office (1937-41), the U.S. economy boomed during the buildup and entry into WWII. In 1942, U.S. GDP hit its all-time high of 18.9% during the height of WWII. During the post-WWII period, U.S. GDP growth slumped to a negative 11.6% due reduced government spending and tepid private sector investment. However by 1950, the U.S. economy was humming again. By 1950,

<sup>24</sup> Financial Times, Economists see 20% chance of US recession, 31 January 2016, <https://www.ft.com/content/da2ed38a-c6bd-11e5-b3b1-7b2481276e45>

<sup>25</sup> MarketWatch, More than one-in-three chance of a recession, J.P. Morgan says, 3 June 2016, <http://www.marketwatch.com/story/more-than-one-in-three-chance-of-a-recession-jp-morgan-says-2016-06-03>

<sup>26</sup> Fortune, Deutsche Bank Says the U.S. Is Likely Headed for a Recession, 6 July 2016, <http://fortune.com/2016/07/06/deutsche-bank-recession/>

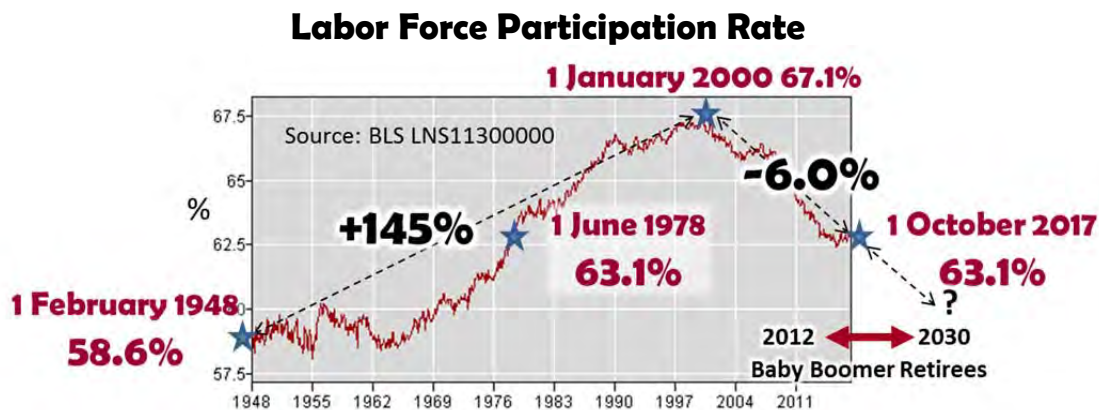
<sup>27</sup> Forbes, Recession Likely In The Next Four Years, 18 October 2016, <http://www.forbes.com/sites/billconerly/2016/10/18/recession-likely-in-the-next-four-years/#d0de627536a2>

<sup>28</sup> The Street, A U.S. Recession Has a 25% Chance of Happening Within Two Years, Goldman Sachs Believes, 25 June 2017, <https://www.thestreet.com/story/14194762/1/a-u-s-recession-has-a-25-chance-of-happening-within-two-years-goldman-sachs-believes.html>

U.S. GDP hit a high of 8.7%. Since 1950, U.S. GDP declined steadily to the current day, surging during periods of war (Korea 1950-53, Vietnam 1960-75) and declining during recessionary periods (1937-38, 1945, 1949, 1953, 1958, 1960-61, 1969-70, 1973-75, 1980, 1981-82, 1990-91, 2001 and the Great Recession of 2007-09). In 2017, U.S. GDP growth average is 2.4% as of Q3 2017.

**Labor Force Participation Rate.** Another way to look at the unemployment situation is via the Labor Force Participation Rate. The Labor Force Participation Rate is the percentage of working-age persons who are employed or unemployed but looking for a job in the Civilian Labor Force (Employed and Unemployed only, excluding Not-in-Labor-Force).

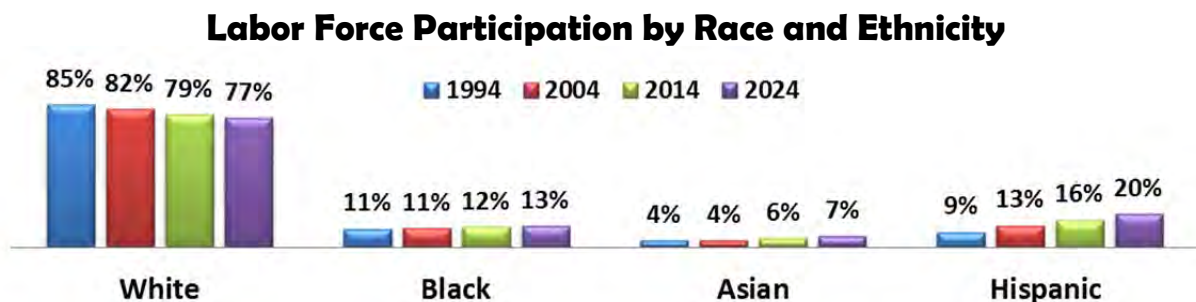
The U.S. labor force participation rate is at a near 38-year low largely due to the exodus of working Americans to the netherworld of the Not-in-Labor-Force. As a point of reference, for each 0.1% point change to the labor force participation rate, represents a loss or gain of approximately 250,000 potential workers. Consequently, a drop from 67.1% in January 2000 to 63.1% in October 2017 equates to a labor force loss of approximately 10,000,000 workers.



5-decades of post WWII period of continued labor force participation growth succumbed to a prolonged post 20<sup>th</sup> Century period of decline from a high of 67.1% in January 2000 to 63.1% today—a net 6.0% decline from peak and a low that has not occurred since June 1978.

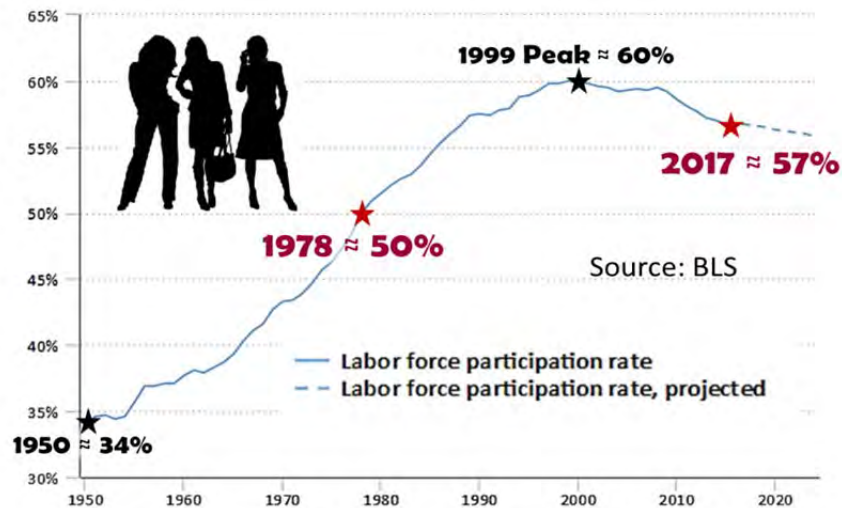
BLS points to retirements among the aging baby boom generation as a key factor affecting the labor force participation rate. However, baby boomers (ages 53 to 71 in 2017) have just begun to enter retirement and cannot be held responsible for the dramatic drop in labor force participation that began twenty years ago. Baby boomers began retiring in mass in 2012 and will continue to do so until 2030. If the BLS is correct about baby boomer retirement as a key factor on downward labor force participation rates, the participation rate may erode to lows not seen since the end of WWII.

Notwithstanding, in the future the estimated retirement of 10,000 American baby boomers per day will have a dramatic impact on lowering labor force participation rates to historic lows unless the United States can encourage more Americans to workfare over welfare.



**Labor Force Participation by Race and Ethnicity.** The BLS projects that the percentage of non-White Americans will continue to increase unabated as the percentage of the White labor force personnel decreases. As discussed later in this report, 2011 marked the first year in U.S. history that minority births exceeded White births. In 2015, over 50% of all U.S. children aged 5 years old are minorities. By 2020, more than 50% of all U.S. children are expected to be part of a minority race or ethnic group. By 2044, America will be a minority-majority nation. California, Texas, New Mexico and Hawaii are already minority-majority states—not counting the upsurge in the multiracial population.

## Women Labor Force Participation Rate History



**Labor Force Participation by Gender.** Today's labor force participation rate would be significantly lower if not for working women who did not participate in the U.S. workforce to the extent that they do today. According to a July 2017 report from the BLS, entitled "Women in the Workforce Before, During, and after the Great Recession", a major factor that contributed to the growth of the U.S. labor force in the second half of the 20th Century was the remarkable increase in the labor force participation rate of women rising from 34% in 1950 to 60% at its peak in 1999. Since peak, labor force participation has decreased and is projected to continue decreasing to 56% by 2024.<sup>29</sup> Jobenomics contends that this decline must be reversed and has developed a highly-scalable women-owned business program as a means to reverse this serious workforce situation.

## Prime-Age Workforce Growth over the Last Year

Employed Persons Aged 25-54<sup>30</sup>

Age 25 to 54 years	Working Age Employment		Total	Growth
	1 Oct 2016	1 Oct 2017	New Jobs	Rate
<b>Women</b>	45,815,000	46,160,000	<b>345,000</b>	<b>0.8%</b>
<b>Men</b>	52,627,000	53,018,000	<b>391,000</b>	<b>0.7%</b>

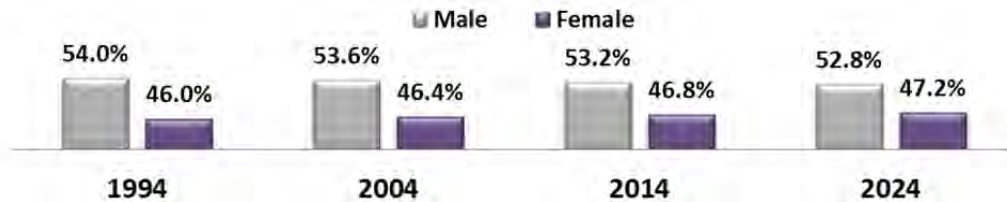
Source: BLS CPS Household Data, Table A-8

<sup>29</sup> BLS, Women in the Workforce Before, During, and after the Great Recession, July 2017, <https://www.bls.gov/spotlight/2017/women-in-the-workforce-before-during-and-after-the-great-recession/pdf/women-in-the-workforce-before-during-and-after-the-great-recession.pdf>

<sup>30</sup> BLS, CPS, Table A-8, Employed persons by age, sex, marital status, multiple jobholding status, and self-employment, seasonally adjusted, <https://www.bls.gov/web/empsit/cpseea08.htm>

Over the last year, prime-age (ages 25-54) workforce growth rate has favored women over men by 0.8% versus 0.7% respectively. In terms of raw numbers, 345,000 new prime-age female workers and 391,000 new male workers entered the labor force. The primary reason for the high rate of new female jobs is due to renewed hiring in female-dominated occupations (e.g., healthcare, social services and education) as opposed to downsizing in predominantly male-dominated occupation (e.g., construction, manufacturing and mining/logging).

## U.S. Labor Force Participation by Gender History and 2024 Forecast

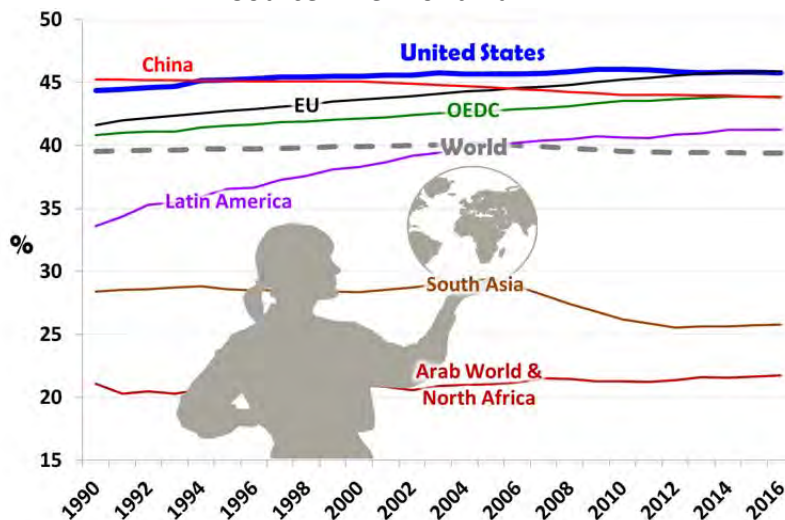


The BLS projects that the percentage of males and females in the U.S. labor force will remain relatively the same over the 1994 to 2024 time period.<sup>31</sup> In 1994, the ratio was 54.0% male versus 46.0% female. In 2024, the BLS projects that males will constitute 52.8% of the labor force compared to 47.2% for females, which is a surprisingly low rate of growth given the needs and aspirations of the modern U.S. woman.

## Percent of Women in the Labor Force

Selected Countries and Economies around the World

Source: The World Bank<sup>32</sup>



American women make the United States the global economic power that it is today. With the exception of four small emerging Sub-Saharan Africa countries<sup>33</sup>, the percentage of women actively engaged in the U.S. labor force is the largest in the world. However, this lead is shrinking against many other national economies. According The World Bank database, the percentage of women in

<sup>31</sup> BLS, Labor force projections to 2024: the labor force is growing, but slowly, December 2015, <http://www.bls.gov/opub/mlr/2015/article/labor-force-projections-to-2024.htm>

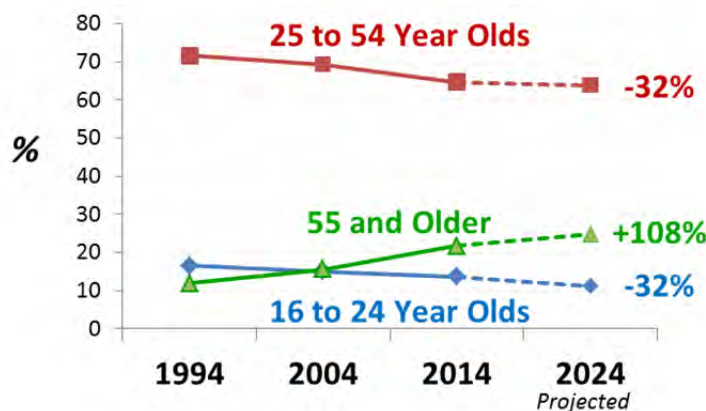
<sup>32</sup> The World Bank, Labor force, female (% of total labor force), <http://data.worldbank.org/indicator/SL.TLF.TOTL.FE.ZS?end=2016&locations=US->

<sup>33</sup> Mozambique, Rwanda, Burundi and Togo

the U.S. labor force increased by only 1.4 percentage points from 44.4% in 1990 to 45.8% in 2016 (with a peak of 46.1% in 2010). In comparison (as shown), Latin America increased by 7.7%, followed by the European Union by 4.3%, and the 35 OECD member nations<sup>34</sup> by 3.0%. On the other side of the scale, the percentage South Asian women in the workforce decreased by 2.3%, followed by China with a negative 1.4%, and a worldwide decrease of a minus 0.2%. The Arab World and North Africa remained the most challenging areas around the world for working women.

**Labor Force Participation by Age.** Another major reason for the dramatic drop in the labor force participation rate is due to older Americans who are exiting the labor force due a multiplicity of reasons: downsizing, frustration, lack of skills, preference for younger cheaper workers, outsourcing and automation.

**Labor Force Participation by Age**  
BLS Economic and Employment Projections: 2014 to 2024 Summary



As shown, the BLS projects that the percentage of older (55+) Americans in the U.S. labor force will increase from 11.9% of the labor force in 1994 to 24.8% in 2024, a 3-decade increase of 108%. The percentage of younger Americans, aged 16 to 24, will shrink from 16.5% of the labor force in 1994 to 11.3% in 2024, a 3-decade decrease of 32%. Data also shows that once older workers are out of work, they have a much harder time finding employment than a younger worker. Consequently, Baby Boomers are projected to delay retirement stay on the job much longer. People age 65+ represented 5.4% of the labor force in 2014 and are projected to be 8.2% by 2024.

**Employment-Population Ratio.** The BLS's Employment-Population Ratio<sup>35</sup> is another statistic that is not widely used, but is useful in a strategic context. This ratio answers the question, "what portion of the working-age population is employed?" The Employment-Population Ratio is the proportion of the Civilian Noninstitutional Population of employed farm and nonfarm adults as determined by the monthly Current Population Survey conducted by the Census Bureau for the BLS.<sup>36</sup> Unlike the Unemployment Rate, the Employment-Population Ratio includes people who have stopped looking for work (aka Not-in-Labor-Force). However, it excludes the total U.S. population as its name implies.

<sup>34</sup> The Organization for Economic Cooperation and Development (OECD) is a unique forum where the governments of 35 democracies with market economies work with each other, as well as with more than 100 non-member economies to promote economic growth, prosperity, and sustainable development.

<sup>35</sup> BLS, <http://data.bls.gov/timeseries/LNS12300000>

<sup>36</sup> BLS, Table A-1, Employment Status, <http://www.bls.gov/news.release/empsit.t01.htm>

## Employment-Population Ratio



As of 1 October 2017, the U.S. Employment-Population Ratio was 60.4%. From its peak in April 2000, the U.S. Employment-Population ratio has declined 6.6% due to slow employment growth relative to rapid growth in unemployment (U6) and Not-in-Labor-Force since the turn of the century. As mentioned earlier, Jobenomics advocates calculating the Employment-Population ratio on total population rather than the Civilian Noninstitutional Population in order to better understand the increasing tax and familial burdens placed on working-class Americans.

## **Labor Force and the U.S. Economy**

In general terms, the U.S. labor force is in a much better position today than it was in during the Great Recession. Job gains occurred in all 10 private sector industries this decade. 77.2% of all Americans are now employed by small businesses that created 73.1% of all new jobs this decade. Small business is the engine of the U.S. economy—a fact that is generally underappreciated by American policy-makers and the public.

**Small business is the engine of the economy and the labor force is the fuel that powers the economic engine—American's economic engine needs a major tune-up and is running critically short of high-octane fuel.**

- The U.S. small business engine is sputtering despite all the political and media rhetoric. The rate of small business job creation is dropping precipitously. In terms of new starts (firms less than 1-year old), the BLS reports that the United States is now creating startup businesses at historically low rates, down from 16.5% of all firms to 8% in 2014 (latest available data on new starts).<sup>37</sup> Based on a Wall Street Journal (WSJ) analysis of this recently released BLS report's data, "If the U.S. were creating new firms at the same rate as in the 1980s that would be the equivalent of more than **200,000 companies and 1.8 million jobs a year.**"<sup>38</sup> Business startups are the seed corn of the U.S. economy. Without the planting and fertilization of these seedlings the fields of American commerce would remain fallow.
- The U.S. labor force is not sustainable-hence the U.S. economy is not sustainable. More and more American adults voluntarily depart the workforce or opt for lives of dependency or in the underground economy as opposed to entering the labor force. Labor force participation rates and employment-population ratios are at the lowest rates in recent U.S. history. Today, citizens in the Not-in-Labor-Force exceed those enrolled in the Unemployment (U3) category by a factor 13.5-to-1. This great disparity is rarely addressed by policy-makers, analyzed by decision-makers or mentioned by the media's talking-heads, all of whom celebrate the fact that the Official U3 Unemployment is now at a near post-recession low of 4.2%. In addition, 40% of all U.S. workers are now considered "contingent" workers (i.e., workers who are dependent on uncertain or conditional gigs, tasks, jobs or part-time employment, most often without employee benefits). Within the next decade, the Gig/Contingent Workforce will be the dominant form of labor in the United States and many parts of the world.

**Unless policy-makers, decision-leaders and media-pundits wake up and focus on strategic economic development, workforce development and business development issues the U.S. economy is likely slide into recession before the end of President Trump's first term.**

In order to substantiate such a bold and unsettling statement the U.S. economy could be only a matter of months or years away from a major financial downturn or recession, it is important to look

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<sup>37</sup> BLS, Business Employment Dynamics Summary, 27 January 2016, Table 8, Private sector establishment births and deaths, seasonally adjusted, <http://www.bls.gov/news.release/cewbd.t08.htm>

<sup>38</sup> Wall Street Journal, Sputtering Startups Weigh on U.S. Economic Growth, 23 October 2016, <http://www.wsj.com/articles/sputtering-startups-weigh-on-u-s-economic-growth-1477235874?mod=djem10point>

back at recent policy decision that have weakened the U.S. economy and hollowed out the American middle class. Presidents are not the only people responsible for fixing the economy and labor force. Few understand that the President only indirectly controls fiscal and monetary policy via political platforms and agenda. Fiscal policy is determined by the U.S. Congress that adjusts federal spending levels and tax rates. Monetary policy involves actions of the Federal Reserve System (bank) to determine money supply and interest rates. Let's start with recent monetary policy.

## U.S. Government Financial Bailouts, Buyouts & Stimuli Since 2008

<b>Total \$16.9 Trillion</b>			
<b>Federal Reserve</b>	<b>\$ 11,213</b>	<b>Treasury</b>	<b>\$2,910</b>
Primary Credit Discount	\$ 111	TARP	\$700
Secondary Credit	1.00	Tax Break for Banks	\$29
Primary dealer and others	\$ 147	Stimulus Package (Bush)	\$168
ABCP Liquidity	\$ 146	Stimulus II (Obama)	\$787
AIG Credit	\$ 60	Treasury Exchange Stabilization	\$50
Commercial Paper Funding	\$ 1,200	Student Loan Purchases	\$60
Maiden Lane (Bear Stearns)	\$ 30	Citigroup Bailout Treasury	\$5
Maiden Lane II (AIG)	\$ 23	Bank of America Bailout Treasury	\$8
Maiden Lane III (AIG)	\$ 30	Support for Fannie/Freddie	\$400
Term Securities Lending	\$ 75	Line of Credit for FDIC	\$500
Term Auction Facility	\$ 375	Treasury Commitment to TALF	\$100
Securities lending overnight	\$ 10	Treasury Commitment to PPIP	\$100
Term Asset-Backed Loan Facility	\$ 1,000	Cash for Clunkers	\$3
Currency Swaps/Other Assets	\$ 606	<b>FDIC</b>	<b>\$2,478</b>
GSE Debt Purchases	\$ 200	Public-Private Investment (PPIP)	\$1,000
GSE Mortgage-Backed Securities	\$ 1,250	FDIC Liquidity Guarantees	\$1,400
Citigroup Bailout Fed Portion	\$ 220	Guaranteeing GE Debt	\$65
Bank of America Bailout	\$ 87	Citigroup Bailout FDIC Share	\$10
Commitment to Buy Treasuries	\$ 300	Bank of America Bailout	\$3
<b>Quantitative Easing (QE1)</b>	<b>\$ 1,750</b>	<b>HUD</b>	<b>\$306</b>
<b>Quantitative Easing (QE2)</b>	<b>\$ 600</b>	Hope for Homeowners (FHA)	\$300
Operation Twist	\$ 667	Neighborhood Stabilization (FHA)	\$6
<b>Quantitative Easing (QE3)*</b>	<b>\$ 1,440</b>	* \$40B/month thru 2015 (36 months)	
<b>Tresury Buying Program (QE4)**</b>	<b>\$ 885</b>	** \$45B/mon for 18 months & \$75B for 2014	

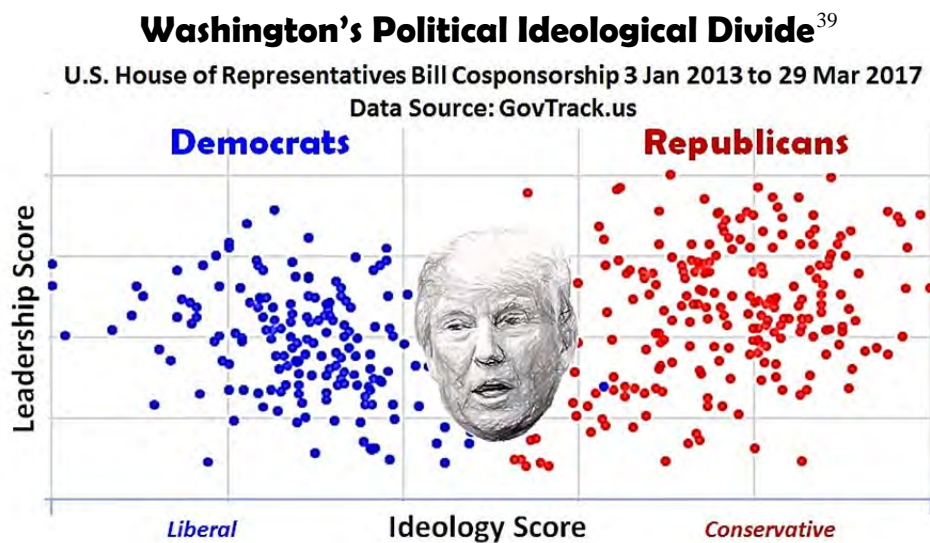
Source: Bloomberg, Jobenomics

**Monetary Policy.** Since the Great Recession, the U.S. central bank and federal government injected \$17 trillion into the economy in terms of bailouts, buyouts and stimuli as shown. The U.S. Federal Reserve (central bank that is in charge of the United States monetary policy) injected over \$11 trillion. The Fed's Qualitative Easing (printing money) programs equated to over \$5 trillion. In addition to the other bailout/buyout actions and stimuli listed, The Fed instituted an unconventional Zero Interest Rate Program (ZIRP) policy to stimulate the economy. Nominal interest rates encourage people to spend since traditional saving accounts, certificates of deposits and bonds are less attractive due to

low rates of return. Some countries have even implemented Negative Interest Rate Programs (NIRP) that charge customers and even banks fees to save (store) money.

The Fed's QE/ZIRP, the U.S. Treasuries' Troubled Asset Relief Program (TARP) and stimulus efforts, the Federal Deposit Insurance Corporation's (FDIC) aid to troubled banks, as well as Housing and Urban Development (HUD) programs for troubled homeowners accomplished what they were meant to do—stop the country from sliding back into recession. On the other hand, the U.S. economy became addicted on the stimuli and is much less robust than it was before the recession. Now that these government programs have come to an end (ZIRP is anticipated to end soon), the weakened U.S. economy will have to operate under its own steam.

**Fiscal Policy.** In terms of fiscal policy, well...there is no meaningful fiscal policy today other than endless rancorous debate and continuing resolutions that sidestep any consequential decisions.



Unfortunately for both America and the Trump Administration, the political ideological divide is so wide and acrimonious that “draining the swamp” in Washington may not produce an adequate return on investment compared to draining the swamps in other inner-city communities across America. Donald J. Trump is a Washington outsider. Rather than depleting his energy on rope-a-doping Washingtonians, the President should focus his economic and job creation efforts on economic, business and workforce development outside of Washington DC. Blighted and economically-depressed inner-cities present an ideal opportunity for executing Trump’s economic and job creation vision without the political polarization that exists in Washington. Jobenomics’ inner-city initiatives are supported by both Democrats and Republicans who are concerned for underserved and marginalized communities. From a Jobenomics viewpoint, President Trump’s success will depend largely on him getting out of Washington and back to his roots and passion in urban renewal.

<sup>39</sup> GovTrack, Ideology Analysis of Members of Congress, 29 March 2017, <https://www.govtrack.us/about/analysis#ideology>

Jobenomics is a nonpartisan and pro-president (regardless of party or personality) organization with a readership of millions of people. Since Jobenomics deals with jobs and economics, its constituency is very interested in President Trump and the Trump Administration's Economic and Job Creation Plan, which is the subject of this 130-page, 20-part series entitled President Trump's New Economy Challenge. From a Jobenomics perspective, the Trump Administration's Economic and Job Creation Plan dual goals of (1) producing 25 million new jobs and (2) achieving an average 4% GDP growth over the next ten years is an admirable goal that will be difficult to achieve as currently proffered to the American public. This 20-part series addresses four major economic/business/workforce development areas where the President's plan falls short:

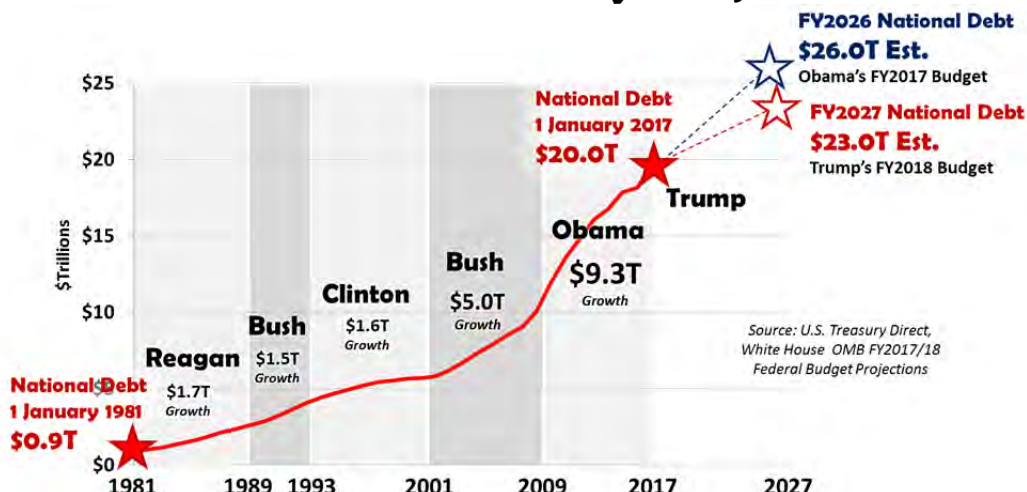


- Balancing the old traditional standard industrial economy with the newly emerging nonstandard digital economy,
- Mitigating the mass-exodus of able-bodied workers who are voluntarily departing the U.S. labor force for lives of dependency or alternative lifestyles,
- Addressing the challenge of the ever growing contingency workforce that will soon be the dominate form of labor in the United States, and
- Mass-producing small and self-employed businesses—the engine of the U.S. economy—and the employer of the vast majority of Americans.

The Trump Plan can easily be amended to ameliorate these perceived shortfalls. With proper leadership, the Administration can lift tens of millions of Americans out of poverty and make America greater than ever before, person-by-person.

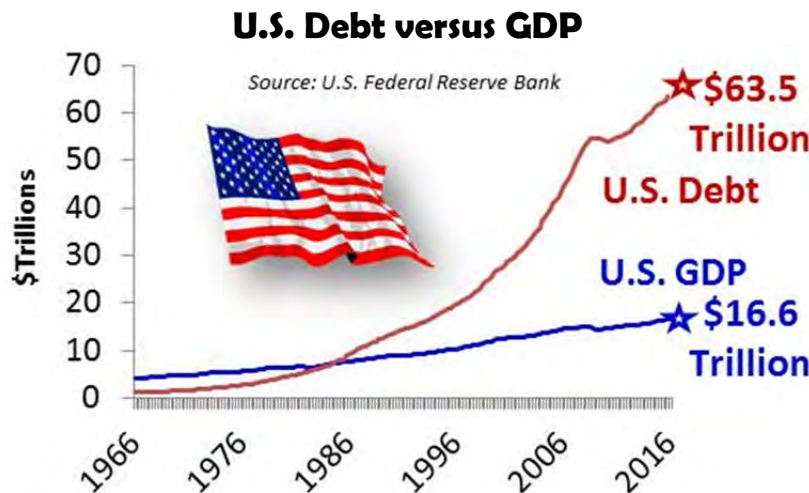
**The Public and Private Debt Conundrum.** U.S. national debt increased from \$0.9 trillion when President Reagan took office to \$20.0 trillion when President Trump took office. Since the Great Recession, the U.S. federal government has spent lavishly on a wide variety of new programs, such as Obamacare, without decreasing spending on traditional programs. Excess spending lifted the economy, but eventually the debt will have to be paid or dealt with by other means, such as inflation, IOUs (as California did in 2009) or defaults.

## U.S. National Debt History & Projections



Presidents Reagan, Bush Sr. and Clinton's debt increases were relatively minor, totaling \$1.7T, \$1.5T (over 4 years) and \$1.6T respectively. During President G.W. Bush's tenure, the national debt growth increased by \$5.0T. During President Obama tenure, national debt skyrocketed to \$9.3T.

According to President Trump's FY2018 Budget, within ten-years the national debt is projected to reach \$23.0T by 2027 (note: this projection is approximate \$3T less than President Obama's spending plan). Equally as troubling is that the yearly interest payment on the debt is projected to increase from \$240 billion in 2016 to \$639 billion in 2027, which is higher than the projected spending on non-defense discretionary programs (\$429B) and almost as much as projected defense spending (\$722B) that has been significantly increased by the Trump Administration.<sup>40</sup>



Government debt equals about one-third of total American debt. Over the last five decades, total debt (government, business, financial, individual) has grown from a luxury for a few to an addiction to all. Compared to the current U.S. Gross Domestic Product (GDP is defined as the value of all goods and services) of \$16.6 trillion<sup>41</sup>, U.S. debt has now reached an all-time high of \$63.5 trillion<sup>42</sup>. Equally important is the rate of debt growth compared to GDP growth. Over the last half century, U.S. debt has grown at a rate 18-times faster than GDP and shows no signs of slowing. The U.S. economy is not sustainable if Americans continue on their current path of over spending and under producing. Increased production depends on more business and job creation.

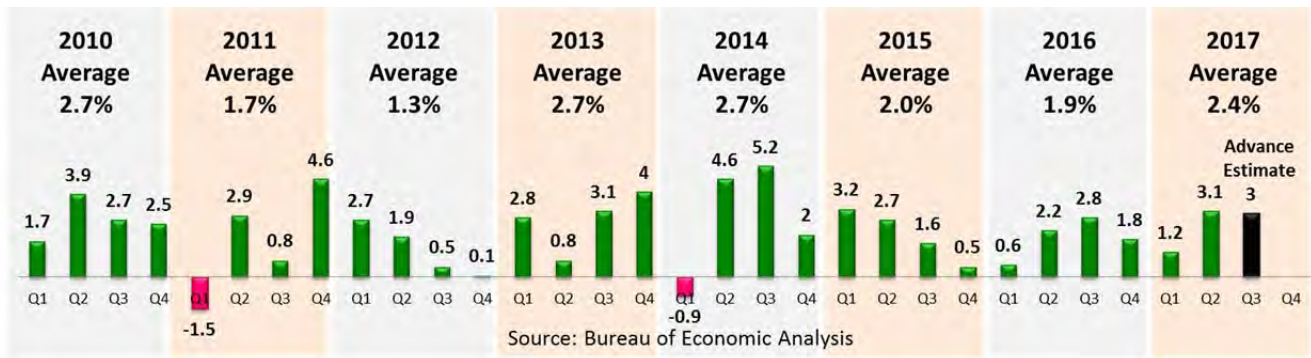
**The Next Recession Is Looming.** Most economists believe that economic growth depends on employment and GDP growth. The ideal rate for U.S. GDP growth is around 3%. During the post-WWII recovery, U.S. GDP grew at an average rate of 3.5% producing tens of millions of jobs each decade. Any GDP growth below 2% is considered sclerotic growth that makes the U.S. economy vulnerable to financial downturns.

<sup>40</sup> White House, Office of Management and Budget, Budget of the Government, FY2018, Tables S-1 and S-4, <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf>

<sup>41</sup> U.S. Bureau of Economic Analysis, Real Gross Domestic Product [GDPC1], retrieved from FRED, Federal Reserve Bank of St. Louis, October 2016, <https://fred.stlouisfed.org/series/GDPC1>

<sup>42</sup> Board of Governors of the Federal Reserve System (US), All Sectors; Debt Securities and Loans; Liability, Level [TCMDO], retrieved from FRED, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/TCMDO>,

## Real GDP Quarterly Percent Change This Decade



According to the U.S. Bureau of Economic Analysis (BEA), during the post-recession recovery period from Q1 2010 through Q1 2017, U.S. GDP averaged 2.32%. In 2015 and 2016, U.S. GDP grew by subpar rates of 2.0% and 1.9% respectively. During the first two quarters of the Trump Administration, GDP averaged 2.1%.<sup>43</sup>

- **Q1 2017** (January, February and March 2017)'s GDP final estimate was a subpar 1.2%—up from an abysmal “advance” estimate of 0.7%, equal to the 1.2% “second” estimate, and down from the 1.4% “third” estimate. Regardless of estimate, Q1 GDP data was not good news for the new Trump Administration. However, these low percentages can be rationalized as a carryover from the previous Administration.
- **Q2 2017** (April, May and June 2017)'s GDP is 3.1%, up from an “advance” estimate of 2.6%—a significant improvement over Q1 and a good sign for President Trump's stated goal of raising U.S. GDP growth to a sustained 4.0% growth rate over a decade.
- **Q3 2017** (July, August and September 2017) advance estimate is 3.0%. The Federal Reserve Bank of Atlanta's GDPNow forecast model for Q3 2017 is 3.3%. The "Blue Chip" survey of the bottom 10 and top 10 leading business economists forecast that Q3 2017 growth will eventually fall between 2.1% and 3.2%.<sup>44</sup>

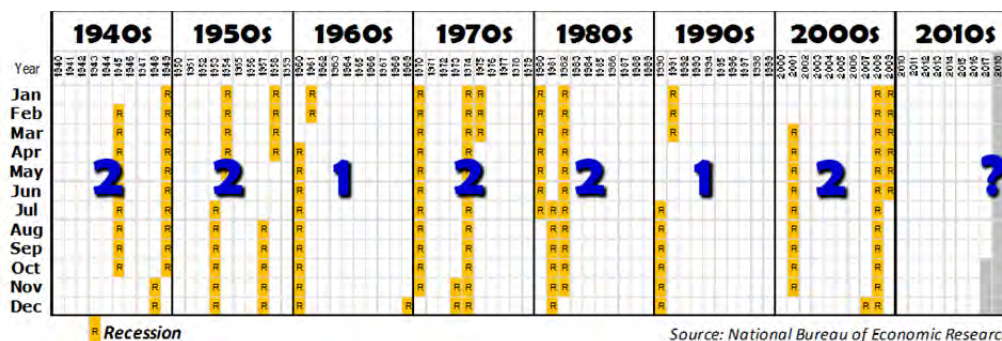
While GDP growth does not insure employment growth, sclerotic GDP growth discourages business hiring, consumer spending and labor force expansion. Sclerotic GDP growth also discourages lower rates of unemployment and voluntary workforce departures. Negative GDP growth creates recessions and depressions depending on the severity and longevity of the contracting economy. The solution to mitigate a future financial crisis is to accelerate GDP growth, which requires the creation of more productive private sector jobs, which, in turn, can only be generated by a massive expansion of the small business sector.

Since the 1940s, the U.S. economy averaged 3 financial crises and 1.7 recessions per decade. Unlike many parts of the world, the United States has been recession free this decade largely due to government spending and the relative attractiveness of U.S. investment opportunities compared to the rest of the world. The question is how long can the U.S. remain crisis and recession free?

<sup>43</sup> U.S. Bureau of Economic Analysis, Table 1.1.1 Percent Change From Preceding Period in Real Gross Domestic Product, 1 September 2017, <https://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=3&isuri=1&903=1>

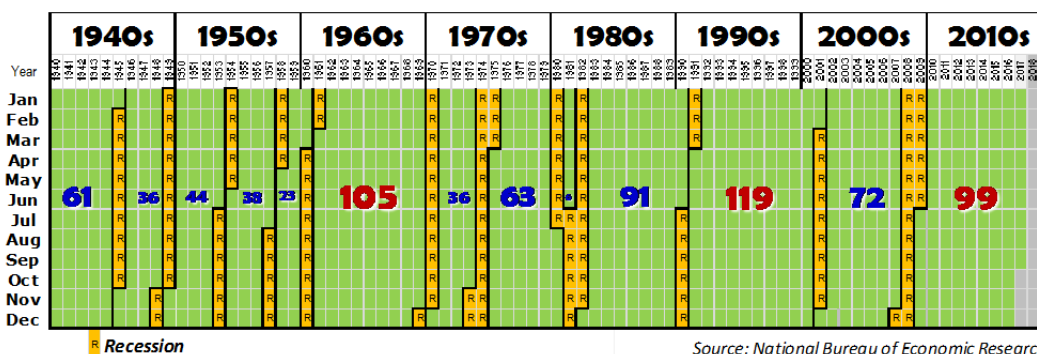
<sup>44</sup> The Federal Reserve Bank of Atlanta's, GDPNow, <https://www.frbatlanta.org/cqer/research/gdpnow.aspx>

## U.S. Average of 1.7 Recessions per Decade



Many economists feel that a recession (two quarters of negative GDP growth) is likely. In January 2016, a Financial Times survey of 51 economists predicted a one-in-five chance of a U.S. recession in the next 12 months.<sup>45</sup> In March 2016, PIMCO, a global investment management firm, warns investor that a U.S. recession is likely by 2020.<sup>46</sup> In June 2016, J.P. Morgan Chase economists projected a 36% chance of a U.S. recession in 12 months.<sup>47</sup> In July 2016, Deutsche bank estimated a 60% chance of the U.S. entering a recession in the next 12 months.<sup>48</sup> In October 2016, Wall Street Journal's survey of economists placed a 60% likelihood of a U.S. recession within four years.<sup>49</sup> In June 2017, Goldman Sachs gives the United States a 25% chance of a recession with two years.<sup>50</sup> While these projections are only guesstimates, the theme is relatively consistent that sclerotic GDP growth begets recessions. So far the Trump Administration has proven these negative prognostications wrong with two quarters of 3%+ growth and positive job growth. However, a sprint does not equate to a marathon. Hopefully, the Administration has strong legs to keep the economy and labor force running smoothly.

## Longest Running Post-Recession Recoveries (Months)



<sup>45</sup> Financial Times, Economists see 20% chance of US recession, 31 January 2016, <https://www.ft.com/content/da2ed38a-c6bd-11e5-b3b1-7b2481276e45>

<sup>46</sup> PIMCO, The Recession of 2020, March 2016, <https://www.pimco.com/en-us/insights/economic-and-market-commentary/macro-perspectives/the-recession-of-2020>

<sup>47</sup> MarketWatch, More than one-in-three chance of a recession, J.P. Morgan says, 3 June 2016, <http://www.marketwatch.com/story/more-than-one-in-three-chance-of-a-recession-jp-morgan-says-2016-06-03>

<sup>48</sup> Fortune, Deutsche Bank Says the U.S. Is Likely Headed for a Recession, 6 July 2016, <http://fortune.com/2016/07/06/deutsche-bank-recession/>

<sup>49</sup> Forbes, Recession Likely In The Next Four Years, 18 October 2016, <http://www.forbes.com/sites/billconerly/2016/10/18/recession-likely-in-the-next-four-years/#d0de627536a2>

<sup>50</sup> The Street, A U.S. Recession Has a 25% Chance of Happening Within Two Years, Goldman Sachs Believes, 25 June 2017, <https://www.thestreet.com/story/14194762/1/a-u-s-recession-has-a-25-chance-of-happening-within-two-years-goldman-sachs-believes.html>

Since the end of the Great Recession to 1 October 2017, the United States economy has run 99 straight months without a recession, which puts this long-run in 3<sup>rd</sup> place over the last eight decades. The 1990s had the longest run of 119 months, followed by 105 recession-free months in the 1960s. Hypothetically, if the current economic expansion matches the historical record of 119 months, the next recession will occur in 22 months or in June 2019—a little more than halfway through President Trump's first term in office. While there is little evidence that economic expansions are limited by time, President Trump will not only have to deliver on his campaign promises, but bear the sins of past presidential, congressional and central bank decisions.

The period of sclerotic GDP growth from 2000, has dramatically impacted the American middle-class and the U.S. labor force that gained only 15.9 million workers compared to the loss of 27.8 million to unemployment and voluntary departures. To make matters worse, the U.S. population grew by 44 million additional Americans today compared to year 2000 (282 million versus 326 million), which places a greater burden on taxpaying workers. For most American workers, real wages (purchasing power) have not increased for decades and are not projected to improve anytime soon. America's aggregate household income has shifted from middle-class to upper-income households, causing many middle-class workers to leave the workforce altogether.

In addition the infusion of \$17 trillion into the economy, foreign investment has kept the U.S. economy recession-free since the Great Recession. The reason for foreign investment is that the U.S. economy has been the "least ugly" economy in the world. The European Union is in crisis with its southern member nations in recession. China has experienced a major slowdown and a large part of the remaining developing world countries are struggling. Even the oil-rich Middle East is reeling from low oil prices, insurgencies and terrorism. So until things change, America should continue to be a safe haven for foreign investment. Unfortunately, the international landscape is rapidly evolving with potentially negative political, economic and military consequences. Fortunately, having a businessman President with larger-than-life bravado and a penchant for making deals should help to keep the U.S. as the least ugly economy in the world for foreign investment.

**Avoiding/Delaying the Next Financial Downturn, Recession or Worse.** As mentioned, the likelihood of a U.S. recession within the near future is higher than most people realize. The internecine warfare happening inside the Washington DC beltway is likely to hasten a financial downturn. Recession would not only impact the U.S. economy, but would cause a significant setback, or a U-turn, to post-Great Recession employment gains.



As of the end of the first nine months in office, the Trump Administration has sounded alarms that tax receipts are coming in "slower than expected". Unless this situation changes, White House Office of Management and Budget Director Mick Mulvaney expects a much earlier showdown on the debt ceiling debate and a potential government shutdown. On the heels of this announcement, Director Mulvaney released President Trump's FY2018 Budget Request, entitled "America First: A Budget Blueprint to Make America Great Again".

Perhaps the most striking theme of the Trump FY2018 Budget Request is that the Trump Administration will attempt to limit the national debt increase to only \$3.2 trillion over 10-years as opposed to the \$6.1 trillion increase planned by Obama Administration. Moreover, President Trump wants to close the federal spending/receipts gap by dramatically reducing non-defense discretionary and means-adjusted welfare spending and balance the budget by the end of the decade.

As expected, Trump critics and opposition groups reacted strongly against this dramatic change in public policy calling the President's budget "dead on arrival", a "sledgehammer to the American Dream" as well as number of other juicy expletives meant to defame or upend the Administration, and, for some Obama loyalists, to impeach the President.

To show the dichotomy between the agenda of the Obama and Trump Administration's fiscal agenda, one should briefly compare the highlights of Obama FY2017 and Trump FY2018 budgets.

- According the **President Obama's FY2017 Budget** request, the U.S. federal budget outlays (spending) in 2017 were projected at \$4.1 trillion and receipts of \$3.6 trillion for a deficit of \$503 billion. \$2.6 trillion (63%) was programmed for mandatory welfare and entitlement programs including \$967 billion on Social Security, \$598 billion on Medicare, \$386 billion on Medicaid and \$651 billion on other social programs. Discretionary defense and non-defense spending totaled \$1.2 trillion (30%) with the remaining \$303 billion was designated for net interest expenses. By 2026, mandatory federal spending would increase to \$4.3 trillion consuming 67% of federal spending. According the Obama FY2017 Budget, national debt would increase \$6.1 trillion from today's \$20 trillion to slightly over \$26 trillion by 2026.

From a Jobenomics perspective President Obama's budget projections were exceedingly optimistic assuming an annual U.S. GDP growth of 53% over the forecast period (from \$18.5 trillion GDP in 2016 to \$28.3 trillion in 2026)—a wildly optimistic assumption considering the Obama Administration 8-year GDP growth average of 2%. If GDP growth remained at the 2% level over the 2017 to 2026 period, the national debt increase would likely have been double the projected \$6.1 trillion due the continuance of a slow growing economy, tepid labor force and income growth and insufficient government income/tax receipts.<sup>51</sup>

- According the **President Trump's FY2018 Budget** request, the U.S. federal budget outlays (spending) in 2018 are projected at \$4.1 trillion and receipts of \$3.7 trillion for a deficit of \$440 billion. \$2.5 trillion (62%) is programmed for mandatory welfare and entitlement programs including \$1,005 billion on Social Security, \$582 billion on Medicare, \$404 billion on Medicaid and \$570 billion on other social programs. Discretionary defense and non-defense spending request is \$1.2 trillion (30%) with the remainder being \$315 billion for net interest expenses. By 2027, mandatory federal spending would increase to \$3.9 trillion consuming 69% of federal spending. According the Trump FY2018 Budget, national debt would increase \$3.2 trillion from today's \$20 trillion to slightly over \$23 trillion by 2027.

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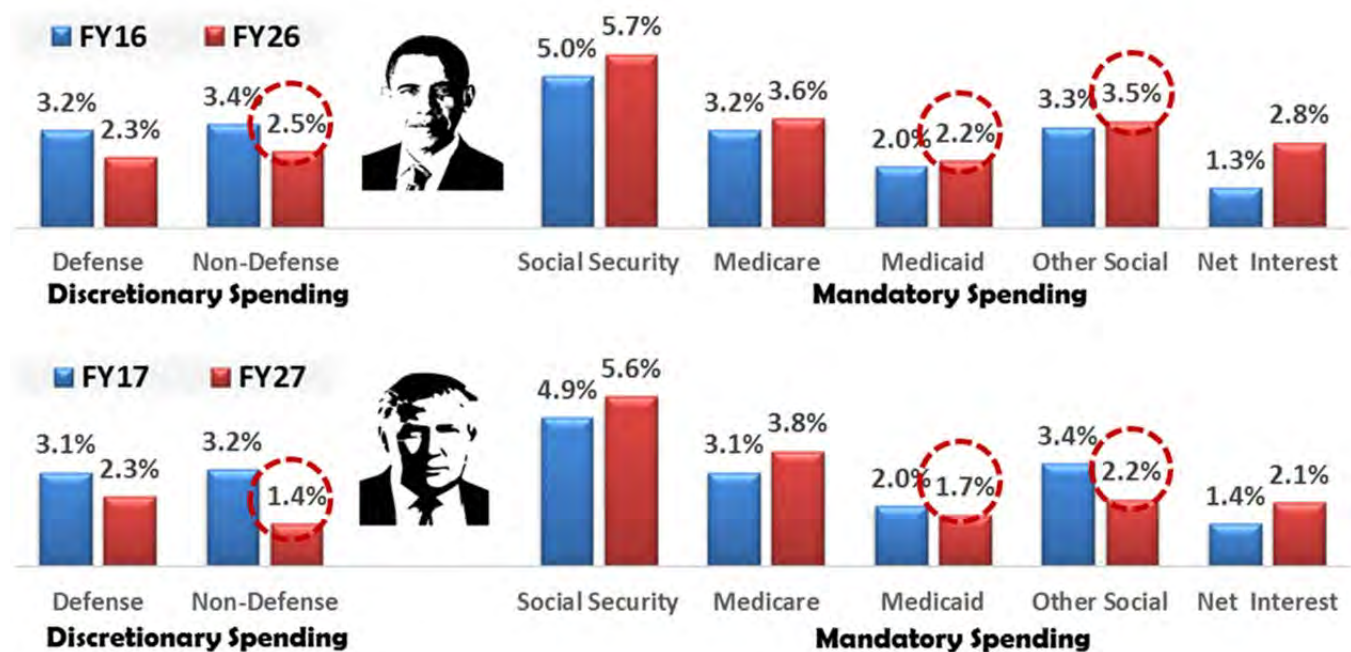
<sup>51</sup> White House, Office of Management and Budget, Budget of the Government, FY2017, <https://www.govinfo.gov/content/pkg/BUDGET-2017-BUD/pdf/BUDGET-2017-BUD.pdf>

From a Jobenomics perspective President Trump's budget projections assume U.S. GDP growth of \$19.2 trillion in 2017 to \$31.0 trillion in 2027, a 62% per year growth rate over the budget forecast period—a less wildly optimistic assumption considering the Trump Administration pledge for GDP growth average of 4% over the next decade as result of the Administration pledges to reduce tax, regulatory environment and onerous trade deals, government spending as well as implementation of a host of pro-business incentives.<sup>52</sup>

At the end of budget request period the Trump Administration mandatory spending request (the principal area of concern) is 69% (\$3.919T out of total outlays of \$5.708T) in 2027 compared to Obama's 67% (\$4,318T out of total outlays of \$6,462T) in 2026. From a Jobenomics perspective, the two budgets are not as dramatically different at the top level as the uproar and vitriol would suggest.

## U.S. Federal Budget Program Projections As A Percent of GDP

Source: President Obama's FY2017 Budget Document, Table S-6  
President Trump's FY2018 Budget Document, Table S-5



As circled above, the three areas of greatest concern by Trump critics and opposition groups are: Non-Defense Discretionary Spending, Medicaid and Other Social (numerous, education, welfare, housing, and employment) programs. Comparing the FY 2017/2018 budgets, the difference is minimal since the Trump budget is only 0.1% greater than the Obama budget request. The major difference is in the out years. Comparing the FY 2026/2027 budget projections, the cuts amount to a collective 2.9% (Non-Defense 0.9%, Medicaid 0.5% and Other Social 1.3%). GDP in 2026/27 is estimated by both Presidents to be in the range of \$30 trillion, so a 2.9% cut would equate to around \$870 billion. \$870 billion sounds like an awful lot of money. On the other hand, a meager 2.9% cut to

<sup>52</sup> White House, Office of Management and Budget, Budget of the Government, FY2018, <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf>

a swollen federal budget seems like way too little in an era where consumers turn their noses up at a proffered 10% discount.

According to the Center on Budget and Policy Priorities (CBPP), an American think-tank that analyzes the impact of federal and state government budget policies from a liberal/progressive political perspective, Trump's budget is deemed "radical" and "harmful", where "millions would lose health insurance", basic assistance would sustain "deep cuts" and government services would sustain "historic declines". CBPP includes in their list of harmful cuts over the next 10-years: \$1.6 trillion cuts to non-defense discretionary programs including education, scientific research, public health, housing assistance, and basic government operations; \$1.25 trillion from "repeal and replace" Obamacare that would potentially take health insurance from 23 million people; a 25% or \$193 billion reduction from SNAP (food stamps); and approximately \$100 billion from a host of means-adjusted welfare programs like Social Security Disability Insurance, Supplemental Security Income and Temporary Assistance for Needy Families.<sup>53</sup>

At the other side of the ideological spectrum, The Heritage Foundation, an American think-tank that promotes conservative public policies and traditional American values, states that President Trump's pledge to balance the budget is a "laudable and important", cuts to Medicaid, welfare and disability programs are "sensible reforms" and prioritizing national defense is being done in a "fiscally responsible way, with offsetting cuts to domestic programs that are redundant, improper, or otherwise wasteful."<sup>54</sup>

Ultimately, Americans will have to choose between security, governance and social safety nets. In many ways, the decision has already been made considering the swelling ranks of poor, marginalized and able-bodied citizens that cannot work or chose not to work.

Unless the United States implements national initiatives that will enable mass-production of small businesses, that currently employ the vast majority of Americans, the American electorate will likely vote for policy-makers that are predisposed to increasing social program spending. In other words, if President Trump can deliver on his pledge to create 25 million net new jobs and boost GDP growth to an enduring 4%, he will be considered a great president. On the other hand, if most of these new jobs do not materialize, if these job are offset by voluntary workforce departures (like happened in the Obama Administration), or if GDP continues to grow at a sclerotic 2% rates, the Trump presidency probably will be considered a failed presidency and likely usher in an era of "professional" politicians that are more amenable to social and socialistic-type programs.

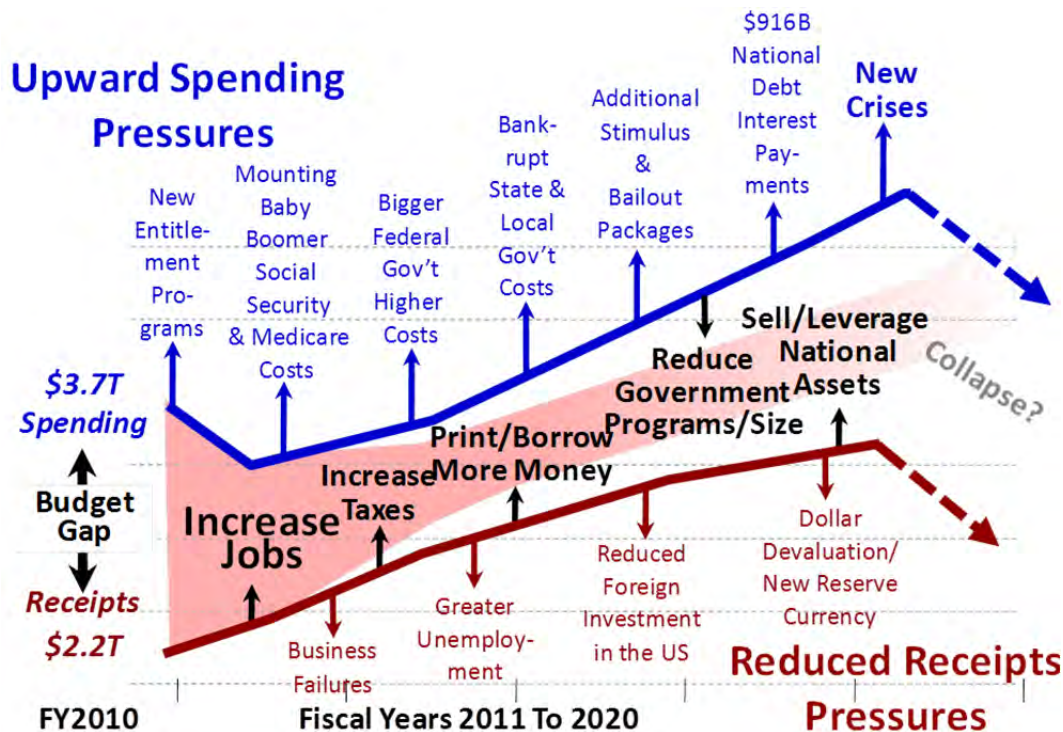
In 2009, Jobenomics published its first book that included this graphic on closing the federal spending and receipts gap. If spending is not brought in line with receipts, the U.S. economy will eventually face an economic downturn, recession, depression, or perhaps even an outright collapse depending on the right ingredients of global socio-economic upheavals and conflicts.

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<sup>53</sup> Center on Budget and Policy Priorities, 19 May 2017, <http://www.cbpp.org/research/federal-budget/trump-budgets-radical-harmful-priorities>

<sup>54</sup> The Heritage Foundation, Heritage Experts Analyze Trump's Budget, 23 May 2017, <http://www.heritage.org/budget-and-spending/commentary/heritage-experts-analyze-trumps-budget>

## Closing the Tax Receipts, Spending and Deficit Gap



The upper blue line is the spending line projections from FY2011 to FY2000 as forecast in President Obama's FY2010 Budget request, titled "A New Era of Responsibility: Renewing America's Promise" (note: presidential budgets spending requests do not reflect the actual appropriations until authorized by Congress). As indicated by the slope of the blue spending line that exceeded the slope of the red tax receipts line due largely to post-recession stimulus and entitlement spending, which in turn led to excessive borrowing and an increase of the national debt by \$9.3 trillion during the Obama Administration.

There are four ways to reduce the spending/receipts gap: (1) cut spending, (2) increase tax revenues via new jobs, (3) increase the tax bite on people already paying taxes, and (4) inflate out of debt.

From a Jobenomics perspective, (1) is highly unlikely due to the political divide and political animosity. (3) is equally unlikely due to Presidential promises to decrease taxes. (4) may seem to be unlikely but it is a mid-term solution that many nations have used to get out of debt. For example, in the 1980s Israel's public debt reached 300% of GDP and hyperinflation peaked a 450% per year, which helped reduce Israel's public debt to 60% of GDP today.<sup>55</sup> While hyperinflation played a big role in reducing the spending/receipts gap, small business and job creation were paramount in avoiding an Israeli financial collapse and earning the enviable reputation of being the "startup (business) nation". This leaves (2) the most desirable option. If President Trump can make good on his promise to create 25 million new jobs and grow GDP to 4% over the decade, he will be able to significantly increase tax revenues via taxes on new jobs and businesses.

<sup>55</sup> Economist, Israel's economy is a study in contrasts, <http://www.economist.com/news/special-report/21722037-dazzling-high-tech-firms-divert-attention-serious-productivity-problem-israels>

## **Net New Jobs, Not Just New Jobs**

as of 1 October 2017

	Working Population Employment Gain/Loss	Non-Working Population		Net Labor Force Gains- Losses
		Not-in-Labor Force Gain/Loss	Unemployed (U3) Gain/Loss	
<b>Last Month (September 2017)</b>	(33,000)	(368,000)	(331,000)	666,000
<b>Post Recession (Jan 2010-Present)</b>	16,881,000	10,604,000	(8,297,000)	14,574,000
<b>Since Year 2000</b>	15,878,000	25,762,000	1,148,000	(11,032,000)

*BLS CES Report  
(CES0000000001)*

*Table B-1  
Seasonally Adjusted*

*BLS Not-in-Labor-  
Force Report  
(LNS15000000)*

*Seasonally Adjusted*

*BLS Unemployed  
Report  
(LNS13000000)*

*Table A-10*

Creating 25 million new jobs will be little in reducing the spending/receipts gap and growing GDP, if the combined U3/NilF losses mitigate new job gains. Consequently, Jobenomics insists that the only way to avoid or delay the next recession, is if the Trump Administration produces 25 million NET NEW jobs, greatly increases startup businesses, and expands existing businesses with emphasis on small businesses that created almost 80% of all new employment so far this decade with little help from the government or financial institutions.

## Not-in-Labor-Force Growth and U.S. Welfare and Social Programs

A major reason for Not-in-Labor-Force growth is due to the exponential growth and financial attractiveness of U.S. welfare and social programs. While there is no evidence that people on welfare are immune to work, there is evidence that many recipients often lack the skills necessary to obtain the types of jobs that pay above-average wages, which, in turn, makes welfare and means-adjusted social benefits attractive. According to a CATO Institute study, “the current (U.S.) welfare system provides such a high level of benefits that it acts as a disincentive for work.”<sup>56</sup>

The American policy-makers are split into opposing camps regarding welfare and social program expenditures.

- Fiscal conservatives want significant spending cuts to welfare and social programs, introduction of measures to tie welfare to some form of workfare requirement as required even in the most socially liberal European nations, better oversight to curtail system-wide fraud and corruption, improved reporting of off-the-books earnings and welfare benefits by government agencies, and a balanced-budget amendment or statute to restrict federal spending to the amount of tax revenue it receives as is done in every state except Vermont. According to a 2015 U.S. Government Accountability Office audit, \$124.7 billion was lost to improper payments attributable to 124 programs across 22 federal government agencies. Over 75% of the government-wide improper payments were due to Medicare, Medicaid, and Earned Income Tax Credit programs.<sup>57</sup>
- Socially-oriented groups emphasize the need for welfare and social benefit programs to keep tens of millions of poor Americans out of poverty. According to a Center on Budget and Policy Priorities analysis, safety net programs keep about 38 million people out of poverty.<sup>58</sup> A recent study conducted by the University of California at Berkeley, estimates that 52% of American fast food workers, 47% of childcare and homecare workers, and 25% of part-time college faculty members require means-adjusted social program subsidies to stay above the poverty level.<sup>59</sup> Most major American restaurant chains and big box store companies provide training programs to help their workers receive government benefits to supplement their wages in order for their employees to achieve a livable income.

Unfortunately, American policy-makers and their constituents have polar opposite views regarding welfare and social benefit program expenditures. Jobenomics foresees that there is little chance of compromise between the two camps on spending. However, there seems to be universal agreement on the need to grow the economy. Increasing GDP growth to 3% or greater would provide fiscal resources to provide safety-nets for the poor as well as funding to invest in greater business and job creation—the focus of the Jobenomics National Grassroots Movement. If America can’t agree on

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<sup>56</sup> CATO Institute, The Work Versus Welfare Trade-Off: 2013,

[http://object.cato.org/sites/cato.org/files/pubs/pdf/the\\_work\\_versus\\_welfare\\_trade-off\\_2013\\_wp.pdf](http://object.cato.org/sites/cato.org/files/pubs/pdf/the_work_versus_welfare_trade-off_2013_wp.pdf)

<sup>57</sup> U.S. Government Accountability Office, Addressing Improper Payments and the Tax Gap Would Improve the Government's Fiscal Position, 1 October 2015, <http://www.gao.gov/products/GAO-16-92T>

<sup>58</sup> Center on Budget and Policy Priorities, Policy Basics: Where Do Our Federal Tax Dollars Go?, 4 March 2016, <http://www.cbpp.org/research/federal-budget/policy-basics-where-do-our-federal-tax-dollars-go>

<sup>59</sup> UC Berkeley Center for Labor Research and Education, The High Public Cost of Low Wages, April 2015,

reducing the economic burden of mandatory spending programs, it should turn its attention to growing the economy by mass-producing small businesses, the economic engine of every nation.

**U.S. Welfare and Social Program Expenditures.** U.S. welfare and social program expenditures, which consumes about 63% of mandatory spending of the U.S. federal budget, are the highest in the world, according to the Organization for Economic Cooperation and Development (OECD), an international body of 35 democratic member nations and 100+ non-member states.

### U.S. Social Expenditures

Constant 2010 Prices, \$ Trillions, Source: OECD Stat

Type	1980	1985	1990	1995	2000	2005	2010	2013
Public	<b>\$0.8</b>	\$1.0	\$1.2	\$1.5	\$1.8	\$2.2	\$2.2	<b>\$3.0</b>
Private	<b>\$0.3</b>	\$0.5	\$0.7	\$0.8	\$1.1	\$1.4	\$1.4	<b>\$1.8</b>
Total	<b>\$1.1</b>	\$1.4	\$1.9	\$2.4	\$2.9	\$3.6	\$3.6	<b>\$4.8</b>

OECD Definition: "**Social Protection and Well-Being Programs**"

include: old age, survivor, incapacity-related, health, family, active labor market, unemployment, housing and other social policy areas.

OECD statistics show that total U.S. welfare and social program expenditures were \$4.8 trillion in 2013, up from \$1.1 trillion in 1980, over a 4-fold increase. Per head recipient in current prices and current purchasing power parities in U.S. dollars, the United States spends 59% more (\$15,194) than the average of all OECD member nations (\$9,542), which would even be higher if U.S. expenditures were subtracted from the OECD average.<sup>60</sup>

### Net Total OECD Social Expenditures (Selected Countries)

Percent of GDP, Source: OECD Stat

(Data Set)	USA	Canada	Mexico	Denmark	Sweden	Finland	Norway	OECD Average
Net Total (2013)	<b>28.8%</b>	20.0%	7.1%	25.4%	25.3%	24.1%	19.3%	<b>21.4%</b>
Public (2016)	<b>19.3%</b>	17.2%	6.9%	<b>28.7%</b>	<b>27.1%</b>	<b>30.8%</b>	<b>25.1%</b>	<b>21.0%</b>
Private (2013-15)	<b>11.4%</b>	4.4%	0.2%	4.7%	3.6%	1.1%	2.2%	<b>2.6%</b>
	North America			Scandinavian Countries				34 Countries

As a percentage of GDP, OECD data indicates that U.S. social expenditures are about one-third higher than the average of all OECD member states, 28.8% versus 21.7% respectively in 2013 (latest reported data). Compared to its neighbors, the United States spends almost more than Canada (28.2% versus 20.7%) and Mexico (28.2% versus 7.7%). In the case of Mexico, the significant difference in national social expenditures serves as a magnet for immigration to the United States.

Scandinavian countries are considered the most socialist-oriented democratic countries in the world. As a percent of GDP, the United States ranks higher than the top-spending Scandinavian nations, according to OECD Net Total (public and private) social spending data. The United States spends a

<sup>60</sup> Organization for Economic Cooperation and Development, Social Expenditure - Aggregated data, Social Protection and Well-Being, retrieved 29 August 2017, [https://stats.oecd.org/Index.aspx?DataSetCode=SOCX\\_AGG](https://stats.oecd.org/Index.aspx?DataSetCode=SOCX_AGG)

total of 28.8% on total public and private social spending compared to 26.1% for Denmark, 24.6% Sweden, 23.4% Finland and 19.3% Norway.

- In terms of public spending, Scandinavians expend 23% to 33% more than Americans. In 2016, the United States spends 19.3% of its GDP compared to Finland's 30.8%, Denmark's 28.7%, Sweden's 27.1%, and Norway's 25.1%.
- In terms of Private Sector mandatory (required contributions as a member of an organization) or voluntary social expenditures in 2013, Americans are far more generous than any other nation on earth by a significant margin including the very socially conscious Scandinavians. Private social expenditures by Americans exceeded the Finns by a factor of more than 10-to-1 (11.4% versus 1.1%), Swedes more than 5-to-1 (11.4% versus 2.2%), Norwegians more than 3-to-1 (11.4% versus 3.6%) and Danes more than 2-to-1 (11.4% versus 4.7%).
- To explain the difference, Scandinavians generally prefer to fund social programs through government taxation and distribution agencies while Americans prefer a combination of government and private sector institutions.

According to Charity Navigator, America's largest independent charity evaluator, with the exception of three recession years U.S. charitable giving increased in current dollars every year since 1976. For the third year in a row, total giving reached record levels. In 2016, American total giving to charitable organizations was \$390.05 billion (2.1% of U.S. GDP). American individual donors gave \$281 billion, accounting for 72% of all U.S. giving, followed by, foundations that gave \$51 billion, giving by bequest equated to \$30 billion and corporate donations amounted \$19 billion. Religious groups have received the largest share of charitable donations (\$123 billion or 32%) followed by educational charities (\$60 billion or 15%), human services charities (\$49 billion or 12%), foundations (\$41 billion or 10%), health charities (\$33 billion or 8%), public-society benefit charities (\$30 billion or 8%), international charities (\$22 billion or 6%), arts/culture/humanities charities (\$18 billion or 5%), and environment/animal charities (\$11 billion or 3%).<sup>61</sup>

Globally, the United States ranks the highest of major countries in terms of generosity. The CAF World Giving Index is known around the world as the leading comparative measure of generosity.<sup>62</sup> The Charities Aid Foundation (CAF) defines generosity as giving money, giving time and helping strangers. Out of 140 countries in the CAF Index the United States ranks 2<sup>nd</sup> behind the Myanmar (Burma)—a deeply religious Buddhist country in which 91% of the Burmese people donate small amounts of money, 63% help a stranger and 55% volunteer time to social causes. In comparison, 73% of all Americans help strangers, 63% donate money and 46% volunteer time to charitable causes. The remainder of the top-10 most generous countries includes Australia (3<sup>rd</sup>), New Zealand (4<sup>th</sup>), Sri Lanka (5<sup>th</sup>), Canada (6<sup>th</sup>), Indonesia (7<sup>th</sup>), United Kingdom (8<sup>th</sup>), Ireland (9<sup>th</sup>) and the United Arab Emirates (10<sup>th</sup>). Regarding the Scandinavian countries cited above, Norway ranks 14<sup>th</sup> Denmark 20<sup>th</sup>, Finland 24<sup>th</sup> and Sweden 25<sup>th</sup>. G20 countries at the bottom of the CAF Index include India (91<sup>st</sup>), Mexico (107<sup>th</sup>), Japan (114<sup>th</sup>) Russia (126<sup>th</sup>) and China (140<sup>th</sup> or dead last in terms of generosity).

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<sup>61</sup> Charity Navigator, <http://www.charitynavigator.org/index.cfm/bay/content.view/cpid/42>

<sup>62</sup> Charities Aid Foundation (CAF), CAF World Giving Index 2016, October 2016, [https://www.cafonline.org/docs/default-source/about-us-publications/1950a\\_wgi\\_2016\\_report\\_web\\_v2\\_241016.pdf?sfvrsn=750cd540\\_4](https://www.cafonline.org/docs/default-source/about-us-publications/1950a_wgi_2016_report_web_v2_241016.pdf?sfvrsn=750cd540_4)

Jobenomics contends that private sector charitable giving and generosity is superior to government program expenditures for three reasons. First, private sector programs are more oriented to meeting the needs of local individuals as opposed to centralized government programs that focus on masses of people based on need and political considerations. Second, the private sector usually disburses funds more effectively with more transparency and accountability. Finally, unlike the government social programs, the private sector uses a much greater degree of non-paid volunteers, which makes the ultimate amount of social expenditures much higher than currently calculated.

The U.S. federal government funds 126 separate programs targeted at low income people. State, county, and municipal governments offer additional \$400 million worth of welfare and healthcare programs.

Combined welfare benefits pay more than minimum wage jobs in 35 states—in many cases, significantly more. According to a landmark CATO Institute (a leading U.S. public policy institute) study<sup>63</sup>, “(U.S.) Welfare currently pays more than a minimum-wage job in 35 states, even after accounting for the Earned Income Tax Credit.” In 13 states it pays more than \$15 per hour. According to CATO, one would have to make more than \$60,000 (pretax wage equivalents) in Hawaii and more than \$50,000 in Washington DC and Massachusetts to beat the level of welfare payments.

Contrary to popular opinion, increasing the minimum wage is not the answer. Per the Congressional Budget Office, “Increasing the minimum wage would have two principal effects on low-wage workers. Most of them would receive higher pay that would increase their family’s income, and some of those families would see their income rise above the federal poverty threshold. But some jobs for low-wage workers would probably be eliminated, the income of most workers who became jobless would fall substantially, and the share of low-wage workers who were employed would probably fall slightly.”<sup>64</sup>

According to the Center on Budget and Policy Priorities, a U.S. policy institute focused on low income families, Social Security, four federal funded health insurance programs, and safety net programs equated to \$2.2 trillion in 2016.<sup>65</sup>

- Social Security payments were made to 60.6 million recipients for a total \$916 billion or 24% of the federal budget in 2016. These expenditures provided retirement benefits to 41 million retired workers (averaging \$1,360 per month for each recipient), 3 million spouses and children of retired workers, 6 million surviving children and spouses of deceased workers, and 10.6 million disabled workers and their eligible dependents.
- Four federally funded health insurance programs (Medicare, Medicaid, Children’s Health Insurance Program, and Affordable Care Act) totaled \$1 trillion or 26% of the federal budget in 2016.

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<sup>63</sup> CATO Institute, The Work Versus Welfare Trade-Off: 2013, [http://object.cato.org/sites/cato.org/files/pubs/pdf/the\\_work\\_versus\\_welfare\\_trade-off\\_2013\\_wp.pdf](http://object.cato.org/sites/cato.org/files/pubs/pdf/the_work_versus_welfare_trade-off_2013_wp.pdf)

<sup>64</sup> Congressional Budget Office, The Effects of a Minimum-Wage Increase on Employment and Family Income, February 2014, <https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/44995-MinimumWage.pdf>

<sup>65</sup> Center on Budget and Policy Priorities, Policy Basics: Where Do Our Federal Tax Dollars Go?, 4 October 2017, <http://www.cbpp.org/research/federal-budget/policy-basics-where-do-our-federal-tax-dollars-go>

- \$594 billion went to Medicare, which provides health coverage to around 57 million people who are over age 65 or have disabilities.
- \$406 billion went to the other three programs. Medicaid and CHIP provide health care or long-term care to about 74 million low-income children, parents, elderly people, and people with disabilities. In 2016, 9 million of the 11 million people enrolled in health insurance exchanges received ACA subsidies, at an estimated cost of about \$31 billion.
- In addition to federal funding, Medicaid and Children's Health Insurance Program require matching payments from state governments.
- Safety net programs: totaled \$366 billion or 9% of the federal budget in 2016. These programs include: the Earned Income Tax Credit and Child Tax Credit for low- and moderate-income working families; programs that provide cash payments to eligible individuals or households, including Supplemental Security Income for the elderly or disabled poor and unemployment insurance; various forms of in-kind assistance for low-income people, including SNAP (food stamps), school meals, low-income housing assistance, child care assistance, and help meeting home energy bills; and various other programs such as those that aid abused and neglected children.

In testimony before the Committee on the Budget United States House of Representatives, the Heritage Foundation, a conservative Washington DC-based policy institute, reported that \$717 billion was spent for 79 means-tested programs providing cash, food, housing, medical care, social services, training, and targeted education aid to poor and low income Americans. Means-tested welfare does not include Social Security, Medicare, Unemployment Insurance, or worker's compensation. About 50% of means-tested spending went for medical care; 40% for cash, food, and housing aid; and 10% goes for "enabling" programs intended to help poor individuals become more self-sufficient, such as child development, job training and targeted federal education aid.<sup>66</sup>

The U.S. Census Bureau's Survey of Income and Program Participation (SIPP) is a household-based survey designed as a continuous series of national panels. Each panel features a nationally representative sample interviewed over a multi-year period lasting approximately four years. The last 4-year survey was announced in 2013. The next 4-year survey, currently underway, will be announced in late 2017.

According to the latest (Q4 2012) SIPP data<sup>67</sup>, 308,983,190 payments were made to welfare recipients out of total population of 309.5 million Americans in 2012. 153,323,310 Americans received benefits from one or more programs, which equates to half of the U.S. population.

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<sup>66</sup> The Heritage Foundation, Examining the Means-tested Welfare State: 79 Programs and \$927 Billion in Annual Spending, 17 April 2012, <http://budget.house.gov/uploadedfiles/rectortestimony04172012.pdf>

<sup>67</sup> U.S. Census Bureau, Economic Characteristics of Households in the United States, Table 2: People by Receipt of Benefits from Selected Programs: Monthly Averages: 4<sup>th</sup> Quarter 2012 (retrieved 29 August 2017), <http://www.census.gov/programs-surveys/sipp/publications/tables/hsehd-char.html>

## U.S. Welfare Recipients

Source: U.S. Census Bureau, Survey of Income and Program Participation (SIPP)

Reciency Status and Program	Population
US Population (Q4 2012)	309,467,100
<b>Received benefits from one or more programs</b>	<b>153,323,310</b>
	<b>50%</b>

<b>Social Welfare &amp; Social Insurance Programs</b>	<b>108,726,830</b>
Social Security	51,900,210
Railroad Retirement	346,060
Veterans' compensation	3,297,360
Unemployment compensation	3,776,230
Workers' compensation	598,850
Veterans' educational assistance	45,640
Medicare	48,762,480
<b>"Means-Tested" (Welfare) Programs</b>	<b>200,256,360</b>
Public or subsidized rental housing	13,266,890
Federal Supplemental Security Income (SSI)	20,354,890
Food stamps (SNAP)	51,471,110
Temporary Assistance for Needy Families (TANF)	5,442,240
Other cash assistance	4,517,200
Women, Infants, and Children (WIC)	22,525,500
Medicaid	82,678,530
	<b>308,983,190</b>

Source: US Census Bureau

As shown, 108,726,830 Americans receive some form of social welfare or social insurance payments and an additional 200,256,360 Americans receive “means-tested” program payments. These totals do not include other government benefits like the Earned Income Tax Credit (EITC), the Child Tax Credit (CTC), Alternative Minimum Tax (AMT) rebates and Education and Tuition Assistance programs. The EITC alone can amount to payments of \$6,000 per year for families with three children. Nor does it include expenditures for Affordable Care (Obamacare), tuition assistance, college loans, unemployment insurance, housing assistance and a long list of other programs.

Income numbers from Current Population Survey (CPS) and SIPP are the sources of the official U.S. poverty rate and income distribution statistics. According to numerous sources, means-tested program payments could be underreported by a significant amount. For example, according to a University of Chicago’s School of Public Policy Studies, roughly half of the dollars received through food stamps, Temporary Assistance for Needy Families and Workers’ Compensation have not been reported in the CPS. High rates of underreporting and understatement are found also for many other government transfer programs and datasets.<sup>68</sup>

<sup>68</sup> University of Chicago, Irving B. Harris Graduate School of Public Policy Studies, The Under-Reporting of Transfers in Household Surveys: Its Nature and Consequences, June 2015, <https://harris.uchicago.edu/sites/default/files/AggregatesPaper.pdf>

## Most Expensive Need-Tested Programs

Source: U.S. Congressional Research Service, Need-Tested Benefits: Estimated Eligibility and Benefit Receipt by Families and Individuals

<b>FY2012 (\$ Billions)</b>	<b>Selected Need-Tested Programs</b> <i>Source: Congressional Research Service, December 2015 Report</i>	<b>Recipients (Millions)</b>
\$77.8	Supplemental Nutrition Assistance Program (SNAP)	58.0
\$54.9	Earned Income Tax Credit (EITC)	62.9
\$50.7	Federal Supplemental Security Income (SSI)	8.4
\$33.4	Housing Assistance	10.8
\$22.1	Additional Child Tax Credit (ACTC)	51.9
\$7.2	Women, Infants and Children (WIC) Nutrition Program	8.1
\$6.7	Temporary Assistance for Needy Families (TANF)	5.8
\$5.2	Child Care and Development Fund (CCDF)	1.9
\$3.5	Low-Income Home Energy Assistance Program (LIHEAP)	18.3
<b>\$261.5</b>		<b>226.1</b>

U.S. Congressional Research Service's 30 December 2015 report examined estimated benefit receipt by families from nine major need-tested benefit programs listed above. According to the CRS, an estimated 135 million persons were eligible for benefits and an estimated 106 million persons (1 in 3 persons in the population) actually received benefits from one of these programs in 2012. The estimated median annual benefit amount from the nine programs in 2012 was \$3,300. An estimated 25% of families that received benefits from one or more of the selected programs received a total of \$9,027 or more. "Families with children who received \$9,027 or more had characteristics indicative of a more disadvantaged population: working less than full-time all year, lacking a high school diploma, being in a family headed by a single woman, being of a racial/ethnic minority (other than Asian-American), and being in a large family." <sup>69</sup>

The massive amount of disbursements by U.S. welfare and social program expenditures have created a public assistance industry characterized by 1.5 million U.S. public charities, private foundations and nonprofit organizations that are largely dedicated to maximizing unemployment, entitlement and welfare benefits.<sup>70</sup> These nonprofit organizations yield tremendous social and political power that continue to fuel the growth of entitlement and means-tested welfare programs, which inadvertently fuels Not-in-Labor-Force growth and dependency on public assistance.

From a Jobenomics perspective, welfare and social assistance programs are vitality needed for the poor and disadvantaged. However, the safety net has become a floor that often serves as an inducement for people not to work. As discussed in the Jobenomics Comprehensive U.S. Labor Force & Employment Report., the United States needs to create new and innovative employment opportunities as an attractive alternative to departing the labor force. Until these income

<sup>69</sup> U.S. Congressional Research Service, Need-Tested Benefits: Estimated Eligibility and Benefit Receipt by Families and Individuals, 30 December 2015, <https://fas.org/sgp/crs/misc/R44327.pdf>

<sup>70</sup> Note: As of 2013, the U.S. has 1,527,525 registered nonprofit organizations. For a complete list see the National Center for Charitable Statistics, <http://nccsweb.urban.org/PubApps/profile1.php?state=US>

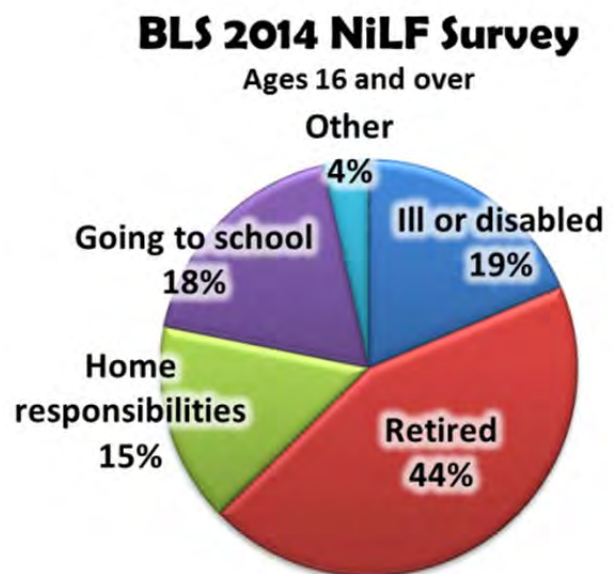
opportunities are proffered, little change is likely due to growing political power of the have-not element of our society.

**“Old Age” & Retirement.** For the most part, the BLS attributes for voluntary (quit looking) workforce departures to the Not-in-Labor-Force category are due to “retirement”. From a Jobenomics perspective, the “retirement” category is ill-defined and subject to question given the whimsical nature of the few number of government surveys conducted over the last decade regarding the reason America’s are not looking for work.

A 2015 BLS survey of people who are not in the labor force and the reason why they are not working provides a limited view of the reasons why people choose not to look for work. Respondents who said “no” to the following first three questions below were considered to be Not-in-Labor-Force. The fourth question illuminated the main reason for not working.

1. "Did you work at a job or business at any time during the last year?"
2. "Did you do any temporary, part-time or seasonal work even for a few days in the last year?"
3. "Even though you did not work during the last year, did you spend any time trying to find a job or on layoff?"
4. "What was the main reason you did not work?" (*Interviewer is instructed to read response options if necessary*): a. ill health or disabled, b. retired, c. home responsibilities, d. going to school, e. could not find work, f. other reasons?

According to a 2014 BLS Not-in-Labor-Force survey (the latest survey on the NiLF category), of the 87.4 million Americans, by reason why “you did not work?”, 44% were reported as retired, followed by 19% ill/disabled, 18% going to school, 15% home responsibilities and 4% other reasons.<sup>71</sup> According to the survey, from 2004 to 2014, the percentage of baby boomers aged 55 to 64 years, increased by 3.1 million people with retirement being the largest category (44%) followed by ill/disabled (40%) in 2014. While most of the people in this 55 to 64 year age group cannot qualify for early Social Security benefits due to age, they can qualify Supplemental Security Income for being ill or disabled.



The reason for why 38,530,000 (44% of NiLF) of all people over 16 years old were retired was not addressed by the BLS. Perhaps the poignant question that needs to be addressed is why policy-makers aren’t more concerned that almost 40 million able-bodied Americans are “retired” in today’s slow growth economy and highly competitive world? The old-fashioned illusion of a Shangri-La

<sup>71</sup> BLS, Beyond the Numbers, People who are not in the labor force: why aren't they working?, December 2015, <https://www.bls.gov/opub/btn/volume-4/people-who-are-not-in-the-labor-force-why-arent-they-working.htm>

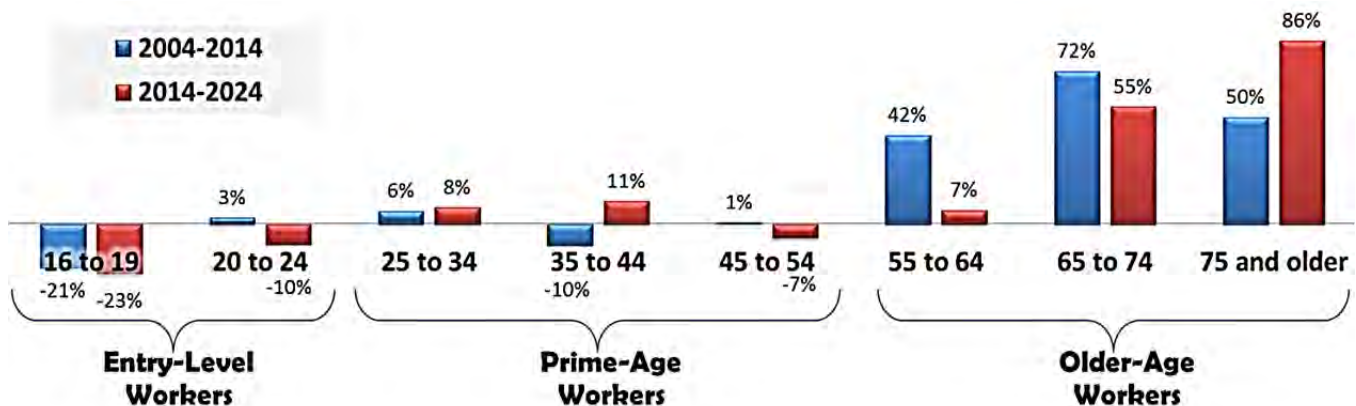
retirement at the old age of 65 no longer exists. First, people are living much longer. Second, taxpayers cannot continue the burden of supplementing retirement. Third, the eroding workforce and middle class need seasoned workers more than ever.

From 2004 to 2014, the number of 65+ Americans in the Not-in-Labor-Force cadre increased by 6.7 million citizens (28,708,000 to 35,398,000), by far the fastest growing demographic in the Not-in-Labor-Force. Of these 35,398,000 Americans, a whopping 88.5% were recorded by the BLS as “retired” and eligible for Social Security and Medicare benefits. Jobenomics asserts that many of these retired would be pleased to be un-retired if given a pathway to employment either in the standard workforce or the contingent workforce as a part-time employee, independent contractor or consultant.

The American labor force is graying. Entry-level workers (16 to 24) are waiting longer to join the labor force. The percentage change of prime-age workers (25 to 54) stagnated and not projected to improve. Older-age workers (55+) are staying longer with folks aged 75+ staying the longest.

## Civilian Labor Force Percent Change By Age

2004-2014 Actual, 2014-2024 Projected, Source: BLS <sup>72</sup>



Paradoxically, older-age people are also exiting earlier for “retirement” that is increasingly being underwritten by taxpayer dollar for decades longer than originally intended by the Social Security Act of 1935 when the average lifespan was only 60 years of age. The reason for this seemingly paradoxical statement is due to two factors (1) fewer and fewer older America’s can afford to retire with little or no retirement savings, and (1) Social Security benefits usually can only support basic retirement needs.

The American workforce is getting grayer due to an aging population and lower replenishment rates (births). The median age of the labor force was 37.7 in 1994, 40.3 in 2004, 41.9 in 2014, and is projected to be 42.4 in 2024. At the same time, the overall labor force participation rate is projected to decrease to 60.9% in 2024.<sup>73</sup> Jobenomics believes that this is an optimistic projection due the

<sup>72</sup> BLS, Employment Projections, Table 3.4 Civilian labor force, by detailed age, gender, race, and ethnicity, 1994, 2004, 2014, and projected 2024, [https://www.bls.gov/emp/ep\\_table\\_304.htm](https://www.bls.gov/emp/ep_table_304.htm)

<sup>73</sup> BLS, Employment Projections: 2014-24 Summary, <http://www.bls.gov/news.release/ecopro.nr0.htm>

additional impact of the burgeoning Not-in-Labor-Force, Contingent Workforce and the Digital Economy—all which are not adequately addressed in government statistical and economic projections.

Over the last century, average American life expectancy doubled from 39 years of age in 1850 to 79 today. Contrary to popular opinion, older Americans are not only enjoying greater longevity but healthier lives.

According to The Economist's analysis of a recent Institute for Health Metrics and Evaluation study in the United Kingdom, "five of the additional six years that a British boy born in 2015 can expect to live, compared with one born in 1990, will be healthy." Also according the study, by the turn of the next century, the ratio of 65+ to "working-age" people will triple worldwide.<sup>74</sup> Centenarians (people over 100) are one of the fastest growing demographics in America rising 44% in the last 15-years. As far as health, a U.S. centenarian was recently recognized as the first 100-year-old ever to run a marathon.<sup>75</sup>

According to the U.S. Social Security Life Expectancy Calculator, the average life expectancy for someone born in the United States in 2017 is 87.3 years for women 83.6 years for men. Not only are people born today living longer, older people are living much longer. The Life Expectancy calculator estimates that an American man reaching age 65 today can expect to live to 84.4 and an American women to 86.8. Moreover, one out of every four American 65-year-olds today will live past age 90, and one out of 10 will live past age 95.<sup>76</sup> As of Q3 2017, per BLS data, nearly 1-in-5 of Americans 70-years or older are working compared to 1-in-10 in the early 1990s.

For the most part the American welfare system is immune to changing the initial eligibility age even though American lifespans have increased by approximately 33% since its creation as part of Franklin D. Roosevelt's "New Deal" in 1935.

U.S. Social Security Act of 1935 created a social insurance program designed to pay retired workers age 65 a continuing income after retirement. Amendments to the Social Security Act in 1983 enacted an increase in the retirement age from 65 to 67 over a 22-year period, with an 11-year period at which the retirement age remained at 66. Today, the full benefit age for social security is 66 for people born in 1943-1954, and 67 for those born in 1960 or afterward. Early retirement benefits continue to be available at age 62, but are reduced to 70% as opposed to the traditional 80% protocol. If a person delays retirement, they receive an additional 8% benefit each year until age 70, making total benefit package 32% higher.<sup>77</sup>

The maximum retirement benefit for someone who waits until age 70 to collect Social Security benefits is approximately a taxable \$3,500 a month, or \$42,000 per year. However the median

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<sup>74</sup> The Economist, Longevity, Over 65 Shades of Grey, 8 July 2017, <https://www.economist.com/news/leaders/21724814-get-most-out-longer-lives-new-age-category-needed-what-call-time-life>

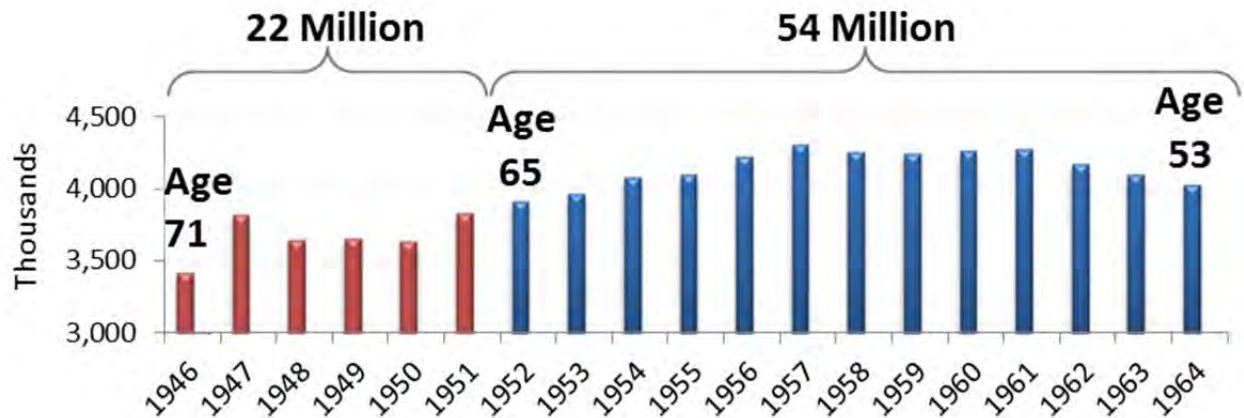
<sup>75</sup> CNN, Living to 100, The centenarian tide is on the rise, 25 January 2016, <http://www.cnn.com/2016/01/25/health/centenarians-increase/index.html>

<sup>76</sup> U.S. Social Security Administration, Life Expectancy Calculator, <https://www.ssa.gov/planners/lifeexpectancy.html>

<sup>77</sup> U.S. Social Security Administration, Retirement Age: Background, <https://www.ssa.gov/planners/retire/background.html>

benefit by the average American retiree will be substantially lower. Per the Social Security Administration, as of October 2017, the average benefit for retired workers, disabled workers, and aged widows and widowers was \$1,333 a month, or \$16,000 a year—a sum equal to the 2017 U.S. Poverty Level for a 2-person household in the Contiguous 48 States.<sup>78</sup>

## The U.S. Baby Boomer Generation in 2017



According to a report by the Economic Policy Institute (EPI), 41% of baby boomers have no retirement savings at all and the remainder have meager nest eggs to support their retirement.<sup>79</sup> With a projected 25 to 30 years to live, policy-makers need to insure that these baby boomers are provided adequate income opportunities to supplement their meager savings and social security benefits that pay an insufficient amount of money to retire with dignity.<sup>80</sup>

Now is the time for policy-makers to address the baby boomer challenge, which is still in its infancy in term of numbers of people on the verge of retirement. Today, 54-million baby boomers are 65 years old or younger, and are considering their work/retirement options.

When American baby boomers first became eligible for Social Security and Medicare in 2011 they represented only 15% of the population with approximately 40 million adults. By 2050, the numbers of 65+ year olds will more than double to 89 million citizens.

The U.S. Social Security System is not structured to support such an onslaught of dependent older citizens. From a labor force perspective, today's birth-educate-work-retire-die lifecycle construct has been upended by increased longevity as senior adults become an ever greater percentage of American society. It is incumbent that policy-makers ensure that ageing populations are productive contributors to the economy (and labor force) rather than a burden to the younger generation.

<sup>78</sup> U.S. Social Security Administration, Benefits Paid By Type Of Beneficiary, <https://www.ssa.gov/OACT/ProgData/icp.html>

<sup>79</sup> The Motley Fool, 10 Retirement Stats Every Baby Boomer Should Know, 28 March 2017, <https://www.fool.com/retirement/2017/03/28/10-retirement-stats-every-baby-boomer-should-know.aspx>

<sup>80</sup> U.S. Department of Health & Human Services, Office of the Assistance Secretary for Planning and Evaluation (ASPE), Poverty Guidelines, 2017 Poverty Guidelines For the 48 Contiguous States and the District Of Columbia, 26 January 2017, <https://aspe.hhs.gov/poverty-guidelines>

## Age Dependency Ratio: Older Dependents to Working-Age Population

Source: U.S. Federal Reserve Bank of St. Louis <sup>81</sup>



The Dependency Ratio is a measure of the number of the working age population, aged 15 to 64, as compared to the number of dependents, aged zero to 14 (youth dependency) and over the age of 65 (old-age dependency). As highlighted on the U.S. Federal Reserve Bank of St. Louis' Age Dependency Ratio chart, the U.S. old-age dependency ratio dramatically increased from 19.8 since the retirement of the first baby boomer in 2011 to 23.0 in 2016. According to the U.S. Census Bureau, the old-age dependency ratio is forecast to increase over the next 20-years to almost 40.0 with a corresponding decline in youth dependency ratio due to lower birth replacement rates. <sup>82</sup>

From an economic standpoint much more needs to be done to reengage these older workers in the labor force as opposed to allowing them to be a burden on the declining working population. Lifelong learning is the key way to reengage older Americans. Lifelong learning is defined as the provision or use of both formal and informal learning opportunities in order to foster the continuous development and improvement of the knowledge and skills needed for employment and personal fulfillment, self-sufficiency and independence.

**Postsecondary Education.** Another major reason for Not-in-Labor-Force growth is due to the increasing number of students enrolled in postsecondary education. Postsecondary education that is subsidized by government is a means-tested welfare program for people that cannot otherwise afford a college education. The ideological split between fiscal conservatives and social progressives on postsecondary education as a right as opposed to a privilege is especially acute in today's politically-charged atmosphere.

Jobenomics endorses subsidized postsecondary education for the right reasons to land the right job in order to self-actualize and achieve self-sufficiency. Unfortunately, too many students use

<sup>81</sup> U.S. Federal Reserve Bank of St. Louis, Age Dependency Ratio: Older Dependents to Working-Age Population for the United States (SPPOPDPNDOLUSA), <https://fred.stlouisfed.org/series/SPPOPDPNDOLUSA>

<sup>82</sup> U.S. Census Bureau, Projections of the Size and Composition of the U.S. Population: 2014 to 2060, Figure 6 - Dependency Ratios: 2014 to 2060, March 2015, <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>

government subsidies to enroll in postsecondary institutions for the wrong reasons, such as parental or peer pressure, enjoying the college scene, or delaying the drudgery of the labor force. It is also unfortunate that many students are burdening themselves with a lifetime of long-term debt.

### Labor Force Participation Rate & Employment–Population Ratio by Age

Source: BLS, TED: The Economics Daily Report January 2007 to July 2017 <sup>83</sup>

Labor Force Participation Rate				Employment–Population Ratio			
Age	Jan-07	Jul-17	Change	Age	Jan-07	Jul-17	Change
16-24	60.7%	55.5%	-5.2%	16-24	54.4%	50.5%	-3.9%
25-54	83.4%	81.8%	-1.6%	25-54	80.3%	78.7%	-1.6%
55+	38.0%	40.1%	2.1%	55+	36.7%	38.8%	2.1%
All ages	66.4%	62.9%	-3.5%	All ages	63.3%	62.9%	-0.4%

As discussed earlier, the Labor Force Participation Rate (the percentage of the population that is either employed or unemployed) and the Employment–Population Ratio (ratio of the labor force currently employed to the total working-age population) are key metrics that gauge economic and labor force health. As shown above, entry-level (ages 16-24) workers are down significantly in both metrics as compared to prime-age (ages 25-54) and older-age (55+) workers. The decline in entry-level workers can largely be attributed to the increase emphasis on postsecondary degree-based education as the means to getting ahead in 21<sup>st</sup> Century America.

Student loan debt is second only to mortgage debt and now exceeds both auto loan and credit card debt.<sup>84</sup> According to Student Loan Hero, Americans owe over \$1.45 trillion in student loan debt, which is over twice the amount of \$620 billion in total credit card debt. The average monthly student loan payment for 44.2 million borrowers is approximately \$351 per month. The average Class of 2016 graduate has \$37,172 in student loan debt, up 6% from 2015. The student loan delinquency rate (90+ days delinquent or in default) is now 11.2% and is expected to increase substantially.<sup>85</sup> A federal student loan is considered to be in default after 270 days of nonpayment.

According to the National Center for Education Statistics' The Condition of Education in 2017 Annual Report <sup>86</sup>, total undergraduate enrollment in degree-granting postsecondary institutions was 17.0 million in fall 2015, an increase of 30% from 2000 when enrollment was 13.2 million students. While total undergraduate enrollment increased by 37% between 2000 and 2010, enrollment decreased by 6% between 2010 and 2015. By 2026, total undergraduate enrollment is projected to increase to 19.3 million students. In fall 2015, female students made up 56% and male students made up 44% of the total undergraduate enrollment. Between 2000 and 2015, Hispanic enrollment increased by

<sup>83</sup> BLS, TED: The Economics Daily, Employment–population ratio and labor force participation rate by age, 9 August 2017, <https://www.bls.gov/opub/ted/2017/employment-population-ratio-and-labor-force-participation-rate-by-age.htm>

<sup>84</sup> Federal Reserve Bank of New York, Household Debt and Credit Report, Q2 2016, <https://www.newyorkfed.org/microeconomics/hhdc.html>

<sup>85</sup> Student Loan Hero, A Look at the Shocking Student Loan Debt Statistics for 2017, updated 13 September 2017, <https://studentloanhero.com/student-loan-debt-statistics/>

<sup>86</sup> U.S. Department of Education, National Center for Education Statistics, The Condition of Education 2017, May 2017, Pages 116, <http://nces.ed.gov/pubs2016/2016144.pdf>

126%, Blacks by 73%, Asian/Pacific Americans by 29%, American Indian/Alaska Natives by 29% and Whites by 21%.

According to The Center for College Affordability and Productivity (CCAP), not all colleges are equal, not all college majors are equal, and the proportion of overeducated workers in occupations has grown substantially. Increasing numbers of recent college graduates are ending up in relatively low-skilled jobs that, historically, have gone to those with lower levels of educational attainment. 48% of employed college graduates are in jobs that the BLS suggests requires less than a four-year college education. 11% of employed college graduates are in occupations requiring more than a high-school diploma but less than a bachelor's degree. 37% are in occupations requiring no more than a high-school diploma. CCAP also asserts that the proportion of overeducated workers in occupations appears to have grown substantially and that 5 million college graduates are in jobs the BLS says require less than a high-school education.<sup>87</sup>

A Georgetown study also agrees that not all college degrees are equal and that the risk of unemployment among recent college graduates depends largely on their major. Entry-level salaries for many graduates (such as those majoring in art-related career fields) are \$30,000, which less than what they can get on welfare in HI, DC, CT, NJ, RI, VT, NH, MD, CA, WY, OR, MN, NV, WA, ND, NM, DE and roughly equal to benefits provided by a dozen other states.<sup>88</sup> The Georgetown study also cautions students to seriously weigh the benefits verses the costs. In 2013, the average student loan debt was \$30,000, but with rising tuitions, \$50,000 is a more reasonable figure for future graduates. Many students have a laissez-faire attitude about paying off loans or expecting loan forgiveness. Unfortunately, the phenomenon of compound interest also works on student loans. Unpaid loans can compound to double or triple the original amount.

According to the U.S. Department of Education, for Q3 2017 outstanding student loans total \$1.34 trillion, up from \$0.52 trillion in 2007. The total number of outstanding federal student loan borrowers has reached **a near all-time high record of 42.0 million borrowers**, up 28.3 million borrowers from in 2007.<sup>89</sup> Based on recent historical data, the growth of students in the Not-in-Labor-Force will continue to increase at a rate of 7% to 8% per year. Student loan debt will also continue to increase and compound. Due the ever increasing workforce skills gap, postsecondary will continue to be viewed as a panacea and a political necessity.

The President's 2018 Budget for postsecondary student aid includes both discretionary and mandatory funding that would make available \$134.2 billion in new grants, loans, and work study assistance—an increase of \$36.5 billion, or 37%, over the amount available in 2008 and down \$5.5 billion, or 4%, from the year prior—to help an estimated 12.2 million students and their families pay for college. Of the \$134.2 billion, \$104.8 billion is allocated for loans and \$28.8 billion for grants. The President's FY2018 Budget Request focuses the Education Department's mission on supporting

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<sup>87</sup> The Center for College Affordability and Productivity, Underemployment of College Graduates, January 2013, <http://centerforcollegeaffordability.org/research/studies/underemployment-of-college-graduates/>

<sup>88</sup> Georgetown Center on Education and the Workforce, Hard Times: College Majors, Unemployment and Earnings: Not All College Degrees Are Created Equal, <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Unemployment.Final.pdf>

<sup>89</sup> U.S. Department of Education, Federal Student Aid Portfolio Summary, <https://studentaid.ed.gov/sa/about/data-center/student/portfolio>

States, school districts, and postsecondary institutions to provide a high-quality education to all students. The President's top educational priority is ensuring that every child has the opportunity to attend a high-quality school (school choice) selected by his or her parents. Other priorities include maintaining strong support for the Nation's most vulnerable students, simplifying college funding, supporting educational innovation, and streamlining Department programs consistent with a more limited Federal role in education. Consistent with the pledge of a more limited role in education, the U.S. Department of Education's 2018 budget was trimmed from \$68 billion in FY17 to \$59 billion in FY18, a \$9 billion, or 13% reduction.<sup>90</sup>

From a Jobenomics perspective, more discipline is needed to prepare postsecondary students for current job openings by industry and the emerging employment opportunities created by the energy and network technology revolutions (see Jobenomics Comprehensive U.S. Labor Force & Employment Report.). Education in STEM (science, technology, engineering and math) related subjects, especially those closely associated with e-business and e-commerce, will be especially important to revitalizing the U.S. labor force and economy. Educational focus needs to be on achieving specific skillsets as opposed to earning a degree. Active learning must replace rote and apprenticeships must increasingly replace academic classrooms.

Issuing and underwriting of student loans should be tied to specific milestones, goals and requirements in the same way that the mortgage industry ties loans to potential homeowners. The current student loan system is largely a social welfare system without workfare requirement. Too many students are taking too long to get an education which generates the need for greater amounts of subsidies. Student loans could be tied to grades, longevity and labor force needs, which would eventually lead to better students and more capable labor force entrants. Equality important from a fiscal perspective, better students would be more accountable for the vast sums of money being borrowed, more capable of earning a living and paying back the loans. At the end of day, better students would enable issuers and underwriters to loan more money with less delinquencies and defaults.

**NEETS.** While post-secondary students are absent from the workforce and are functionally unemployed as a member of the Not-in-Labor-Force, they are otherwise productively engaged in higher education and self-improvement as opposed to their NEET counterparts. A NEET is a young person (generally aged 16 to 29) who is "Not in Education, Employment, or Training".

The etymology of the term NEET started in the United Kingdom in 1999 and has been adopted by many countries as a measure of workforce detachment by a nation's youth. NEET often carries a negative connotation such as "dropout" or "lazy". However, the NEET phenomenon is far more serious sign of workforce displacement to lack of skills and automation. The Word Bank has even begun collecting data from around the work regarding the share of youth not in education, employment or training as a percentage of a nation's total youth population.<sup>91</sup>

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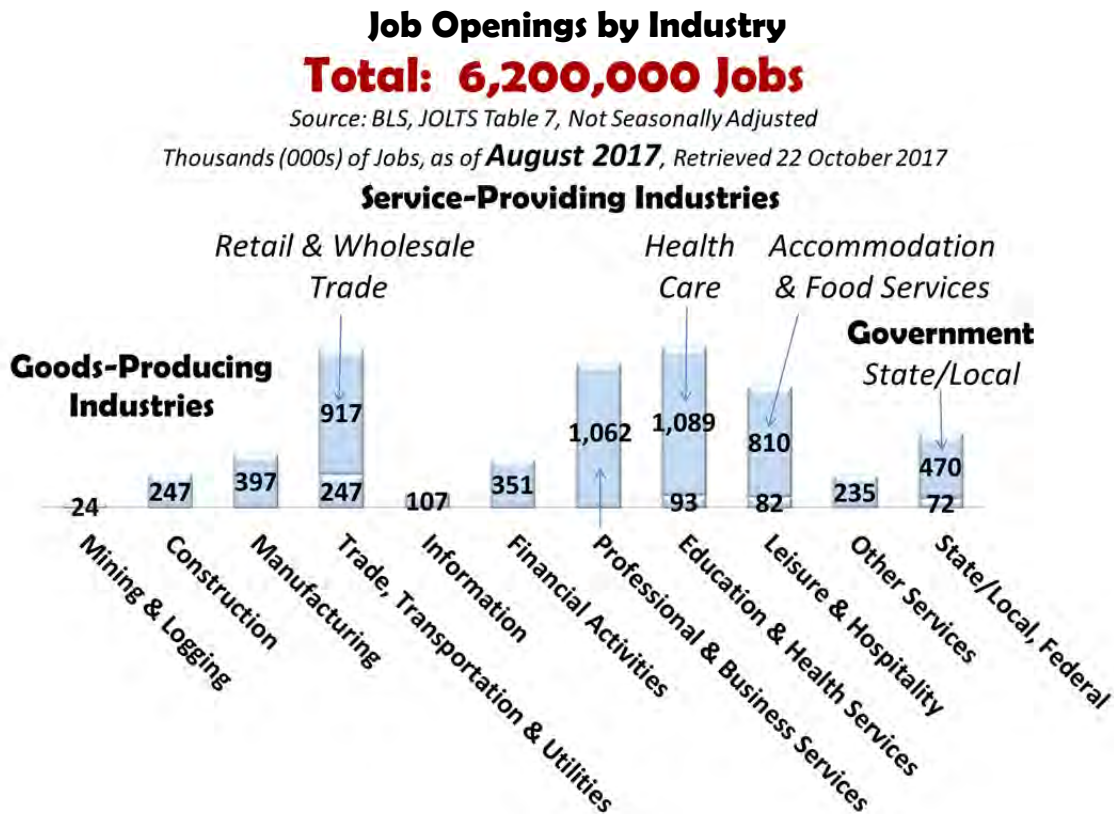
<sup>90</sup> U.S. Department of Education, Student Aid Overview, Fiscal Year 2018 Budget Request, Student Financial Assistance, Page 44, <https://www2.ed.gov/about/overview/budget/budget18/summary/18summary.pdf>

<sup>91</sup> The World Bank, Share of youth not in education, employment or training, total (% of youth population), <https://data.worldbank.org/indicator/SL.UEM.NEET.ZS?locations=IN-US>

NEETS are a serious issue in many parts of the world. In India, NEETS represent about 30% of the youth population and the percentage is growing rapidly as India turns to more automated manufacturing and professional business services to be more competitive in an ever-changing world. Southern Europe (e.g., Spain, Italy, Croatia, Greece and Bulgaria) also has growing NEET rates in the 20% to 30% range, according to a recent Pew Research Center report.<sup>92</sup>

The Pew analysis of data from the Bureau of Labor Statistics calculates that in 2015 there are 10 million American 16-to-29-year-old NEETS. 57% are male and 43% are female. Two-thirds have a high school education or less. 70% of U.S. NEETS were white and 30% were minorities. The minority NEETS are often concentrated in racially-segregated, inner-city communities with high rates of perpetual unemployment and welfare. 40% of American NEETS were older NEETs 25-to-29 years old, many of whom possess college degrees. The Pew report also associates NEET rates with boom and bust economic and business cycles.

Jobenomics contends that NEETS will increase in proportion to the growing Not-in-Labor-Force. As more and more unskilled laborers become frustrated with low wages and contingent work, they are increasingly likely to turn to public assistance, illegitimate forms of income and alternative lifestyles such as substance abuse. America's opioid epidemic is hitting rural areas especially hard largely due to poorer employment opportunities and increasing levels of frustration.



<sup>92</sup> Pew Research Center, Millions of young people in U.S. and EU are neither working nor learning, 28 January 2016, <http://www.pewresearch.org/fact-tank/2016/01/28/us-eu-neet-population/>

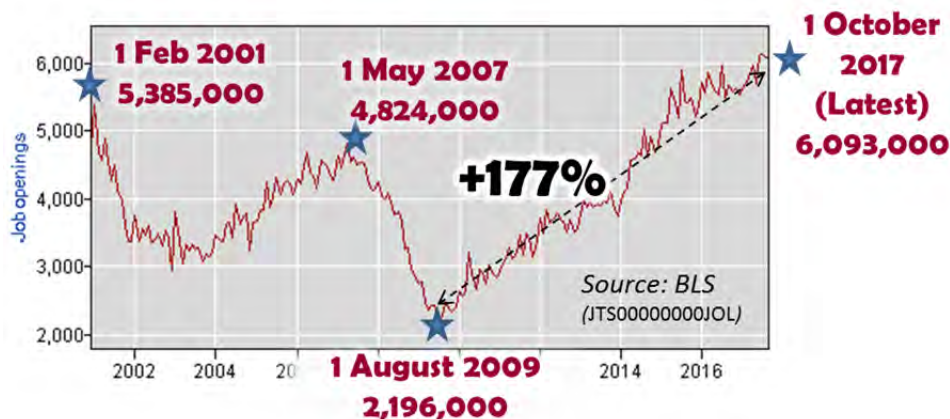
**Job Openings by Industry.** According to the most recent BLS Job Openings and Labor Turnover Survey (JOLTS), there are 6,200,000 job openings in the United States.<sup>93</sup>

The JOLTS report calculates the number and rate of job openings, hires, and separations for the nonfarm sector by industry and geographic region. As shown, the four occupations that have the largest number of openings are: Healthcare (1,089,000), Professional & Business Services (1,062,000), Retail & Wholesale Trade (917,000) and Accommodation & Food Services (810,000). State and local government have 470,000 openings that are likely to remain unfilled due to budget constraints.

The primary reason for the large number of private sector job openings is due to the lack of job skills. The secondary reason is due to economic uncertainty. From a Jobenomics perspective neither reason is likely to change in the near-term and the flow of disgruntled workers will remain unabated into the Not-in-Labor-Force.

## Job Openings

Source: Job Openings and Labor Turnover Survey (JTS00000000JOL)  
Seasonally Adjusted, Thousands (000s)



According to historical JOLTS seasonally adjusted data<sup>94</sup>, on 1 February 2001 the United States reached a peak number of 5,385,000 job openings. During the Great Recession, job openings dropped to a low of 2,196,000. Since the low point in August 2010, job openings have skyrocketed by 177% to 6,093,000 as of 1 October 2017.

**Workforce versus Welfare.** The aforementioned CATO Institute studies on workfare versus welfare conclude that low wage core contingent workers are “Like everyone else, they respond to the incentives they face. If work brings little or no gain, many will choose not to work.”

According to CATO, U.S. welfare benefits fit comfortably into the mainstream of the most generous welfare states. 35 U.S. states offer welfare packages (not including Medicaid) more generous than the most lavish and liberal European countries. “In 39 states, it (the United States welfare system)

<sup>93</sup> BLS, Job Openings and Labor Turnover Survey (JOLTS), <http://www.bls.gov/news.release/jolts.htm>

<sup>94</sup> BLS, Job Openings and Labor Turnover Survey (JOLTS), Job Openings, Seasonally Adjusted, May 2016, retrieved 6 August 2016, <http://data.bls.gov/timeseries/JTS00000000JOL>

pays more than the starting wage for a secretary. In 11 states, welfare pays more than the average pre-tax first year wage for a teacher. And, in the 3 most generous states, a person on welfare can take home more money than an entry-level computer programmer.”<sup>95</sup>

**Work of any kind makes a huge difference. According to the Census Bureau, in 2016, only 2.2% of U.S. full-time workers are below the poverty level. Even part-time work makes a significant difference. Only 13.0% of part-time workers are below the poverty level, compared with 21.6% of able-bodied adults who did not work during the year.**<sup>96</sup>

In absence of workfare, discouraged workers will seek welfare, especially if it provides generous benefits with few strings attached. Unlike most European countries, the United States does not have work-related requirements tied to welfare and social assistance programs. Almost every country analyzed by CATO requires beneficiaries to register with an unemployment office, look for work, and accept job offers. As a result of unencumbered benefits, U.S. welfare and means-adjusted programs tend to incentivize low wage earners to drop out of the labor force and live “on the dole”.

According to MDRC (formerly Manpower Demonstration Research Corporation), a nonprofit nonpartisan education and social policy research organization dedicated to learning what works to improve programs and policies that affect the poor, describes six types of welfare-to-work programs that are successful in either making program participants better off financially or controlling government costs. The following is quoted from the executive summary of MDRC’s Welfare-to-Work publication.<sup>97</sup>

- **“Mandatory work experience programs.** Often following a period of job search, individuals in these programs are assigned to unpaid jobs, which are usually located at government agencies or nonprofit institutions.
- **Mandatory job-search-first programs.** Individuals are assigned to job search activities upon program entry. Other types of assigned activities can follow for individuals who do not find jobs. All five of the programs analyzed in this category encouraged quick entry into work and strongly enforced a continuous participation mandate.
- **Mandatory education-first programs.** Individuals are assigned to education activities prior to job search. The most common of these activities were GED preparation classes or Adult Basic Education (ABE). In some programs, individuals could also participate in English as a Second Language (ESL), vocational training, or employment training classes. Typically, job search assignments follow the completion of courses of study.
- **Mandatory mixed-initial-activity programs.** Individuals are assigned to participate initially in either an education or training activity or in a job search activity, depending on an assessment

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<sup>95</sup> CATO Institute, by Michael D. Tanner and Charles Hughes; The Work versus Welfare Trade-Off: Europe, 24 August 2015, <http://www.cato.org/publications/policy-analysis/work-versus-welfare-trade-europe>; The Work versus Welfare Trade-Off: 2013, 19 August 2013, <http://www.cato.org/publications/white-paper/work-versus-welfare-trade>

<sup>96</sup> U.S. Census Bureau, Historical Poverty Tables—People, Table 25, Work Experience and Poverty Status for People 16 Years Old and Over: 1987 to 2016, <http://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-people.html>

<sup>97</sup> MRDC, Welfare-To-Work Program Benefits and Costs, [http://www.mdrc.org/sites/default/files/execsum\\_18.pdf](http://www.mdrc.org/sites/default/files/execsum_18.pdf)

of their needs. Other assigned activities follow these initial activities if individuals remain unemployed.

- **Earnings supplement programs.** Individuals are provided with financial incentives intended to encourage work. These incentives supplement their incomes while at work.
- **Time-limit-mix programs.** These programs require individuals to participate in employment-orientated activities, provide them with financial incentives, and limit the amount of time they remain eligible for welfare benefits.”

Surprisingly, the most significant welfare-to-work legislation in recent U.S. history was not signed into law by a Republican fiscal conservative. President Clinton signed the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) into law in fulfillment of his 1992 campaign promise to “end welfare as we have come to know it”. Some of the key provisions of the law included requiring recipients to begin working after two years of receiving benefits, placing a lifetime limit of five years on benefits paid by federal funds, and requiring recipients to engage in work activities. To count as work related activities, recipients were required to participate in unsubsidized or subsidized employment, on-the-job training, work experience, community service, vocational training, or provide childcare services.<sup>98</sup> At the core of the 1996 law are “participation rate requirements” that required that up to 40% of able-bodied recipients engage in “work activities” for 20 to 30 hours per week. As a result, welfare rolls dropped by half and poverty rates for minority children reached an all-time low.

In 2012, President Obama issued a directive through the Department of Health and Human Services declaring that states no longer need comply with the law’s (TANF: Temporary Assistance for Needy Families) work standards, which essentially upended the welfare-to-work requirement.

On 30 August 2017, the Trump Administration reversed the Obama Administration policy that allowed states to seek waivers to welfare's work requirements. The Trump Administration believes that welfare-to-work requirements are needed to promote to promote employment and economic independence. Moreover, the Trump change will lead to the “expectation that work should always be encouraged as a condition for receiving welfare”.

The President’s FY18 Budget, entitled A New Foundation for American Greatness, states “We must reform our welfare system so that it does not discourage able-bodied adults from working, which takes away scarce resources from those in real need. Work must be the center of our social policy.” Furthermore, the FY18 Budget document states that “The President and this Budget aim to achieve this (welfare reform) by laying new foundation that creates a pathway to welfare reform that is focused on promoting work and lifting people out of poverty.”<sup>99</sup>

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<sup>98</sup> U.S. Department of Health & Human Services, The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, Making Welfare a Transition To Work, <https://aspe.hhs.gov/report/personal-responsibility-and-work-opportunity-reconciliation-act-1996>

<sup>99</sup> Office of Management and Budget, FY18 Budget of the U.S. Government, A New Foundation for American Greatness, Pages 2 & 5, <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf>

Jobenomics agrees with both the Clinton and Trump's efforts to reform the welfare system by instituting some form of welfare to work requirement, reduce corruption and inefficiency in the current system and provide a solid safety net for citizens that need public assistance.

If low wages incentivize workers to depart the labor force in favor of lucrative and unencumbered government benefits, then the United States has a serious problem for two reasons. The first reason is an established culture of voluntary workforce departures. The second reason is that about three out of every four American workers earn less than U.S. mean income, which will be addressed later in this document. Jobenomics contends that these two reasons contribute to the slow-growth economic recovery, erosion of the American middle-class, and growth of the Not-in-Labor-Force.

**Universal Basic Income.** Universal basic income (UBI, also known as basic income or basic income guarantee) can be viewed as a new form of social security, an additive or replacement for welfare, or a prescription for redistributing wealth in an age where artificial intelligence agents and smart machines (bots, robots and digital assistants) are replacing human workers at an ever increasing rate. UBI's basic construct involves giving citizens a set amount of money from the government, whether they work or not.

Experimental UBI programs are currently underway in a number of nations including Finland, Switzerland, Netherlands, Canada, Italy and Kenya. In the United States, a number of influential U.S. public figures (such as Facebook CEO Mark Zuckerberg; Y Combinator President Sam Altman; Tesla CEO Elon Musk; eBay Founder Pierre Omidyar; Robert Reich, a former U.S. Secretary of Labor; Bill Gross, a leading U.S. fund manager) who support UBI as a vehicle for social change, alternative wealth distribution scheme for low-income citizens, and workers displaced by technology and automation.

The investment research firm Forrester predicts that by 2025 for every three jobs created by technology and automation five jobs will be lost. After 2025, this upside-down ratio is predicted by technology gurus to worsen significantly as artificial intelligence approaches the point of singularity—the point that artificial agents and smart machines reach the level of human general intelligence. For example, automotive singularity is conceivable within several decades as drivers relinquish control of driving to computers, called. Many autonomous driving functions are already commonplace including navigation systems, advanced cruise control, traction control, lane control, stability control and automated braking. Many parts of the financial world are approaching singularity. For example, most stock market trades are automated and conducted by robo-traders.

The revolution in digital and network technology is obsoleting workers via automation, artificial intelligence software agents and AI-enabled smart machines. According to a University of Oxford study on computer automation "about 47% of total U.S. employment is at risk over the next two decades". If Oxford's estimates are correct, out of the 143 million U.S. nonfarm workers, 67 million jobs could be at risk.<sup>100</sup> This obsolescence will impact all workers, including degreed workers, who have routine manual and cognitive skills.

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<sup>3</sup> Oxford University, *The Future of Employment: How Susceptible Are Jobs To Computerization?*, 17 Sep 2013, [http://www.oxfordmartin.ox.ac.uk/downloads/academic/The\\_Future\\_of\\_Employment.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf)[http://www.oxfordmartin.ox.ac.uk/downloads/academic/The\\_Future\\_of\\_Employment.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf)

## U.S. Occupations Subject To Computerization

Source: Oxford University, The Future of Employment: How Susceptible Are Jobs To Computerization?

**0% = not computerizable, 100% = fully computerizable**

<b>Probability of Computerization</b>	<b>Sample U.S. Occupations (from 702 Occupations)</b>
<b>0% to 9%</b>	Executives, supervisors, doctors, therapists, scientists, engineers, designers, lawyers, clergy, teachers, instructors, trainers, advisors, social workers
<b>10% to 20%</b>	Chefs/cooks, chemists, technicians, hairdressers, air traffic controllers, pilots, firefighters, electricians, physician assistants
<b>20% to 29%</b>	Middle managers, computer occupations, analysts, concierges, engineering technicians, sales representatives, middle school teachers
<b>30% to 39%</b>	Actors, medical assistants, investigators, editors, flight attendants, bailiffs, surveyors, interpreters/translators, upholsterers, plumbers
<b>40% to 49%</b>	Judges, health and medical technicians, law clerks, electronic repairers, economists, historians, computer programmers, dispatchers
<b>50% to 59%</b>	Court reporters, product promoters, leather workers, commercial pilots, teacher assistants, cost estimators, transit police, personal financial advisors
<b>60% to 69%</b>	Jailers, meat packers, ticket agents, pipe layers, building inspectors, stock clerks, librarians, janitors, bus drivers, mail carriers, dental hygienists
<b>70% to 79%</b>	Airfield operators, laundry workers, carpenters, broadcast technicians, archivists, painters, bartenders, machine & computer operators
<b>80% to 89%</b>	Attendants, bellhops, cashiers, tool makers, security guards, meter readers, power plant operators, drillers, conservation workers, real estate agents, construction laborers, cartographers, bakers, stonemasons, technical writers
<b>90% to 100%</b>	Inspectors, appraisers, bookies, tour guides, station operators, pharmacy technicians, insurance sales agents, retail sales, butchers, accountants, auditors, waiters, welders, messengers, paralegals, assemblers, clerks, receptionists, gaming dealers, cashiers, real estate brokers, tellers, umpires/referees, loan officers, tax preparers, underwriters, telemarketers

The Oxford University study on the effects of computer automation on the American labor force is the first major effort to quantify what recent technological advances may mean for future employment and the labor force. Oxford analyzed 702 occupations from the U.S. Department of 0% (not computerizable) to 100% fully computerizable.

The Oxford study also acknowledges the possibility that political and sociological forces will likely restrict many of these jobs from actually being computerized. Historical objections to automation of factory floor manual labor eventually gave way to free-market forces. At the dawn of the Industrial Revolution (England 1811-16), Luddites tried to organize and destroy factory automation to preserve standard jobs. Today's Luddites maybe able to slow down the rate of transformation but the economics of automation will eventually defeat techno-pessimists who are resistant to new technologies and change.

In cooperation with Citi Global Perspectives & Solutions, Oxford University conducted two other studies in 2015 and 2016 that addressed automation and computerization in greater detail.<sup>101&102</sup>

- The February 2015 Oxford/Citi study reaffirmed the earlier study probability that 47% of the US labor force is at a high risk of automation. It also assigned the probability that 33% of U.S. workforce is at a low risk of automation (namely the jobs that are highly creative and require social and cultural skills) and the remaining 20% at a medium risk of automation. According to the 2015 study, “the dominant narrative now characterizing how global labor markets are responding to technological change is one of job polarization: the fact that employment growth has been most robust at the highest and lowest ends of the skills spectrum. The middle skill jobs, in contrast, contain the highest concentration of routine tasks and are thus relatively easy to automate.”
- The January 2016 Oxford/Citi study takes a deep dive into the effects of automation on the rest of the world. Building on the Oxford’s original work showing 47% of the U.S. workforce at risk, recent data from the World Bank suggests the risks are higher for other countries. Equivalent figures for India are 69% and 77% for China. As compared to the developed world, emerging and developing economies have a much higher rate of low-skilled workers that are more susceptible to automation.

The 2015 Oxford/Citi study cited three primary reasons why today’s digital and network technology revolution is likely to be different from previous technology revolutions: (1) the pace of change has accelerated; (2) the scope of technological change is increasing; and (3) unlike innovation in the past, the benefits of technological change are not being widely shared — real median wages have fallen behind growth in productivity and inequality has increased.” The 2016 Oxford/Citi study calculates that **“between 2002 and 2012, 33 legacy jobs were lost for every new digital job that was created.”**<sup>103</sup>

UBI is not new to America. In 1976, Alaskans voted to amend the State’s constitution to put at least 25% of the oil money generated by the Trans-Alaska pipeline into a dedicated fund to save money for future generations that would no longer have oil as a source of income. In 1982, the State of Alaska instituted a type of UBI called the Permanent Fund Dividend that redistributes profits (wealth) to Alaska residents from investment earnings of mineral royalties from the Alaska Permanent Fund. Today, a minimum of 25% of all mineral lease rentals, royalties, royalty sale proceeds, federal mineral revenue sharing payments and bonuses received by the State of Alaska is placed in the Alaska Permanent Fund. As of January 2017, the Alaska Permanent Fund was worth about \$55 billion with distributions of up to \$2,100 per year to eligible Alaskan citizens.<sup>104 105</sup>

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<sup>101</sup> Oxford Martin School and Citi Global Perspectives & Solutions, Technology At Work: The Future of Innovation and Employment, February 2015, [http://www.oxfordmartin.ox.ac.uk/downloads/reports/Citi\\_GPS\\_Technology\\_Work.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/reports/Citi_GPS_Technology_Work.pdf)

<sup>102</sup> Oxford Martin School and Citi Global Perspectives & Solutions, Technology At Work v2.0: The Future Is Not What It Used to Be, January 2016, [http://www.oxfordmartin.ox.ac.uk/downloads/reports/Citi\\_GPS\\_Technology\\_Work\\_2.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/reports/Citi_GPS_Technology_Work_2.pdf)

<sup>103</sup> Ibid 36, Technology Is Impacting Media Employment. Page 79

<sup>104</sup> State of Alaska, Alaska Department of Revenue, Permanent Fund Dividend Division, retrieved 9 September 2017, <https://pfd.alaska.gov/Division-Info/About-Us>

Since January 2017, Y Combinator (the leading American startup business seed accelerator) is leading a UBI experiment in Oakland, California, giving 100 Oakland families a monthly stipend of \$1,500 as long as they fill out a money survey about UBI is impacting their lives. Y Combinator President, Sam Altman, recently announced that he wants to expand the Oakland UBI experiment to 1,000 families.

Today there are approximately 120 million Americans who are capable of working but are either unemployed, underemployed or have voluntarily departed the workforce. If every one of these American workers received a UBI payment of \$10,000 the total cost of a nationwide UBI system would approximately \$1.2 trillion (120 million citizens times \$10,000), which is roughly equivalent to the \$1.3 trillion paid by the spent by four federally funded health insurance programs (Medicare, Medicaid, Children's Health Insurance Program, and Affordable Care Act) and the federal safety net programs.

In many ways, a UBI would be much simpler to manage and reduce corruption associated with the federal government's 126 separate programs targeted at low income people. In addition, many social change advocates believe that a U.S. UBI system would also be an excellent way to eliminate people living below the poverty line while simultaneously increasing a multitude of societal benefits including creativity and entrepreneurship.

UBI opponents argue that unconditional benefits would increase voluntary workforce departures and increase alternative forms income creation including the barter and illicit activities. Social conservatives assert that current social program entitlement programs would be politically impossible to unseat and any form of UBI payment would be additive rather than a substitutional to current social assistance and welfare programs.

Consequently any additive UBI benefits would require a combination of reduction to current discretionary spending (e.g., military) or creation of new sources of funds (such as a Value-Added Tax on goods and services, a Wealth Tax on what person owns in addition to paying income taxes, or dramatically expanding the federal earned income tax credit that helps poor working families). From a conservative point of view, current UBI proposals empower state control of wealth and reduced from private ownership.

Jobenomics has not yet taken a position regarding the efficacy of a U.S. UBI effort and recommends a wait-and-see approach to ongoing efforts in the Scandinavian countries. If the Trump Administration is successful in raising U.S. GDP to a consistent 4% level, then UBI will remain a relatively moot issue. On the other hand, if the current trend of voluntary workforce departures are accelerated by a financial downturn or technical automation displaces U.S. workers at rates exceeding current expectations, UBI may become a front-burner concern. However, Jobenomics is very appreciative of the network technology and platform giants (Facebook, Microsoft, Google, Tesla and Y Communicator, etc.) efforts to address the social ramifications of the emerging Network Technology Revolution (a Jobenomics coinage).

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<sup>105</sup> Alaska Permanent Fund Corporation, What Is The Alaska Permanent Fund?, retrieved 9 September 2017, <http://www.apfc.org/home/Content/aboutFund/aboutPermFund.cfm>

## Jobenomics Network Technology Revolution

**The NTR is defined by Jobenomics as a perfect storm of transformative network and digital technologies, systems, processes and services including:**

Big Data, Cloud Computing, Semantic Webs, Synthetic Reality, Mobile Computing, Ubiquitous Computing, Quantum Computing, 5G Broadband, Geo-Location, Near-Field Communications and Beacons, Inductive Charging, Spatial Sensing, Computer Vision and Pattern Recognition, Natural Language Processing and Speech Recognition, Data Mining and Predictive Analysis, Machine Learning, Transfer Learning, Deep Learning, Robotics, Telepresence and Telechairs, Nanobotics, Chatbots, Mechatronics, Memetics, Biometrics, Smart Cards, Blockchains, FinTech, Multifactor Credentialing, Emotive Surveillance and Management, Identity Management, Anonymity Networks, Ambient Intelligence, Artificial Intelligence and Intelligent Agents.



**The NTR will revolutionize labor forces, economies and nations via the:**

Digital Economy and its seven distinct but interconnected communities:

- (1) Electronic/Mobile Commerce Economy, (2) Sharing/On Demand Economy, (3) Apps/Bot/AI Economy, (4) Platform Economy, (5) Gig/Contingent Workforce Economy, (6) Data-Driven Economy, and (7) Internet of Everything Economy.



**The NTR will be brilliantly innovative and creatively disruptive:**

**Creating** tens of millions of new businesses and billions of jobs globally, and/or  
**Destroying** tens of millions of new businesses and billions of jobs globally.



**The NTR will ultimately transform society with humanity working alongside smart machines, sophisticated robots and intelligent agents:**

**Revamping** existing institutions and governments,  
**Instituting** new and different ideas, beliefs, behaviors and cultures, and  
**Changing** the very nature of human endeavor and work.

**The global network and digital economy will be shaped mainly by the digital generation and the ideology of their mentors.**

The Network Technology Revolution (NTR) is defined by Jobenomics as the “perfect storm” of next-generation network and digital technologies that will (1) transform economies, (2) revamp existing institutions, businesses, labor forces and governments, (3) institute new and different ideas, beliefs, behaviors and cultures, and (4) change the very nature of human endeavor and work. Jobenomics has a preliminary Network Technology Revolution document is posted on the Jobenomics website (<https://jobenomicsblog.com/network-technology-revolution/>) and will soon publish a detailed 200-page e-book, which is summarized above.

## Contingent Part-Time Workers and Unemployment

The “contingent” workforce could become the predominant source of employed U.S. labor by 2030, or sooner, depending on economic conditions and seven ongoing labor force trends. The Jobenomics Comprehensive U.S. Labor Force & Employment Report. examines the growing contingent workforce from an employment and income opportunity perspective. This analysis addresses how the contingent workforce is becoming a half-way house between employment and unemployment and a major inducement for people to voluntarily depart the U.S. labor force.

Today, Jobenomics estimates the contingent workforce to be 60,000,000 employed Americans or 40% of the total employed workforce. By 2030, this will accelerate to 80,000,000 or 50% of the total employed workforce. The following chart was derived from the 2015 Government Accountability Office (GAO) report, entitled the “Contingent Workforce: Size, Characteristics, Earnings, and Benefits”, that compared historical surveys (BLS Contingent Workforce Studies, CWS, and the General Social Survey, GSS).<sup>106</sup>

### U.S. Contingent Workforce Size Estimates 1995 to 2030

	BLS/GAO 1995 CWS	BLS/GAO 1999 CWS	BLS/GAO 2005 CWS	GSS 2006	GSS 2010	Jobenomics 1 Oct 2017*	Jobenomics 2030 Est.
Employed	123,208,000	131,494,000	138,952,000	143,150,000	138,438,000	154,345,000	180,000,000
Contingent	39,549,768	39,448,200	42,519,312	50,531,950	55,790,514	61,738,000	90,000,000
Workforce	32.1%	30.0%	30.6%	35.3%	40.3%	40.0%	50.0%

*\*Total Farm and Nonfarm Employment (CPS Data, LNS12000000)*

Using composite data from multiple sources, the GAO estimates contingent workers to be 30% to 40% of the “Employed” U.S. labor force. As of 1 October 2017, the total number of U.S. employed was 154,345,000 people.<sup>107</sup> Using the 40% figure, almost 62 million Americans are contingent workers.

By 2030, Jobenomics estimates that 50% of all employed workers in the United States will be contingency workers for a total of 80 million, with the other half being standard full-time workers. Jobenomics forecasts that contingency workers will be the dominant (over 50%) component of employed Americans in 2030 based on seven factors:

- (1) Increasing labor force losses versus labor force gains,
- (2) Adverse corporate hiring and employment practices,
- (3) Revolution in energy and network technologies,
- (4) Automation of manual and cognitive jobs,
- (5) Impact of the emerging digital economy,
- (6) Shift from full-time, to part-time and task-oriented labor, and

<sup>106</sup> U.S. Government Accountability Office, GAO-15-168R, Contingent Workforce: Size, Characteristics, Earning and Benefits, 20 April 2015, <http://www.gao.gov/assets/670/669766.pdf>

<sup>107</sup> BLS, Table A-1. Employment status of the civilian population, <http://www.bls.gov/news.release/empsit.t01.htm>

(7) Cultural differences of new labor force entrants.

These seven trends are explained in detail in the companion Jobenomics Comprehensive U.S. Labor Force & Employment Report. The focus of this analysis is on part-time contingent workforce that is the closest cadre to being unemployed and often dependent on some form of public assistance to earn a livable wage. Jobenomics believes that this group deserves much more attention and public assistance (monetary and otherwise) than they currently receive. Part-time contingent workers are the group caught in the netherworld between employment and unemployment. Increased attention, support and mentoring is likely to keep them pursuing workfare and meaningful careers.

To understand the contingent workforce, it is necessary to first know how government defines contingency work. The BLS defines the contingent workforce as the portion of the labor force that has “nonstandard work arrangements” or those without “permanent jobs with a traditional employer-employee relationship.” The contingent workforce is comprised of two categories: “core” and “non-core” contingent.

- **Core contingency** workers include part-time workers, agency temps, direct-hire temps, on-call workers and laborers and contract company workers. Core contingency workers are often low wage earners that have nonstandard work arrangements out of necessity (involuntary workers) and are often subject to exploitation.

Government generally views core contingent workers as a fiscal liability since these workers often receive lower wages compared to “standard workers” and are not entitled to traditional employer-provided retirement and health benefits. Consequently, core contingent workers have relied on government retirement and health benefits and other means-adjusted assistance programs to a much greater degree than the standard workforce. Poor part-time workers are the group most likely to become discouraged, quit looking for work and voluntarily depart the labor force.

- **Non-core contingency** workers include independent contractors, self-employed workers and standard part-time workers who work fewer than 35 hours per week. Non-core contingency workers generally seek nonstandard work agreements as a matter of choice (voluntary workers).

Jobenomics views the non-core workforce as a positive and growing economic force. Most next-generation workforce entrants (Generation Z’s digital natives) are not seeking traditional employer-employee relationships and prefer contingent work in the so-called “digital” economy.

Today, the U.S. economy is approximately 95% traditional and 5% digital. However, the digital economy is growing at 20% per year and is likely to generate a significant expansion of non-core contingency workforce. Before mid-century, the U.S. digital economy is projected to be the same size as the traditional economy. The McKinsey Global Institute lists twelve disruptive NTR technologies that will inject \$124 trillion of dollars of economic activity into the

global digital economy by 2025, which would be slightly less than today's global traditional economy of \$138 trillion (GDP PPP as calculated by the IMF).<sup>108 109 110</sup>

### Core & Non-Core Contingent Worker Estimates 1995 to 2030

	BLS/GAO 1995 CWS	BLS/GAO 1999 CWS	BLS/GAO 2005 CWS	GSS 2006	GSS 2010	Jobenomics 1 Oct 2017	Jobenomics 2030 Est.
<b>Agency &amp; direct-hire temps, On-call workers &amp; day laborers, Contract company workers</b>							
<b>Core</b>	7,269,272	7,495,158	7,781,312	10,163,650	10,936,602	12,347,600	21,600,000
<b>Contingent</b>	5.9%	5.7%	5.6%	7.1%	7.9%	8.0%	12.0%
<b>Independent contractors, Self-employed workers, Standard part-time workers</b>							
<b>Non-Core</b>	32,280,496	31,953,042	34,738,000	40,368,300	44,853,912	49,390,400	68,400,000
<b>Contingent</b>	26.2%	24.3%	25.0%	28.2%	32.4%	32.0%	38.0%

Source: GAO Contingent Workforce Report (GAO-15-168R), Tables 3 & 4, 20 April 2015

Source: Jobenomics

Using composite data from studies conducted from 1995 to 2010, the GAO Contingent Workforce report estimates core contingent workers to constitute a low of 5.6% to a high of 7.9% (highlighted in yellow) of the employed portion of the Civilian Labor force, which equates to between 7.8 million to 11.0 million workers.

The percentage of non-core contingent workers ranges between and 24.3% to 32.4% (highlighted in green) of the employed portion of the Civilian Labor force, which equates to between 32.0 million to 44.9 million workers. Jobenomics 2016 estimate is 8.0% or 12.3 million core workers, and 32% or 49.0 million non-core workers.

Jobenomics 2017 estimate of 40% for core and non-core contingency workers is roughly equivalent to the GAO's high water mark of 40% of the U.S. labor force in 2010<sup>111</sup> and Bloomberg's contingency workforce estimate of 40% for 2020.<sup>112</sup> Jobenomics 2017 estimate is to similar estimates from other developed economies. For example, in Japan, contingent workers (non-regular workers) accounted for up to 50% of younger Japanese workers and 40% of the total Japanese labor force in 2014, up from 10% in 1990.<sup>113</sup>

**BLS Part-Time Workforce Estimates.** The BLS reports on the part-time workers as "persons who work less than 35 hours a week", which Jobenomics considers a restricted definition since there are many Americans who work full-time in numerous part-time jobs. This is especially true of new workforce entrants who work multiple part-time jobs out of necessity and more experienced workers who have ventured out as independent contractors and consultants. Nevertheless, the BLS provides the best monthly snapshot of the part-time labor force of any government agency.

<sup>108</sup> McKinsey Global Institute, Disruptive technologies: Advances that will transform life, business, and the global economy, May 2013, file:///C:/Users/CHUCK/Downloads/MGI\_Disruptive\_technologies\_Full\_report\_May2013.pdf

<sup>109</sup> International Monetary Fund, World Economic Outlook, April 2016, <https://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx>

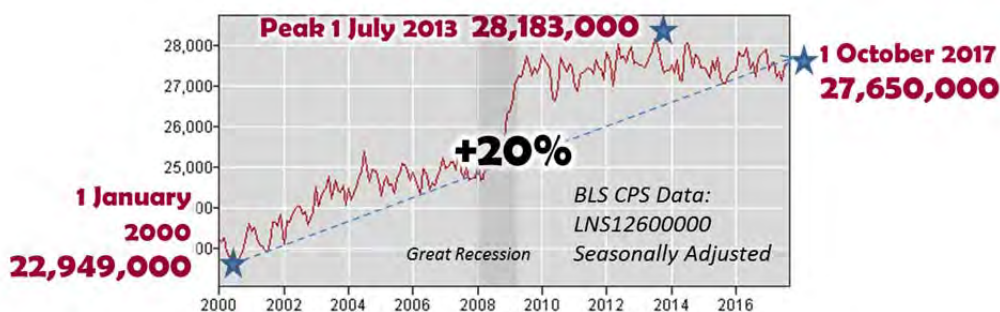
<sup>110</sup> See Jobenomics Network Technology Revolution Report for further detail at [www.Jobenomics.com](http://www.Jobenomics.com).

<sup>111</sup> U.S. Government Accountability Office, Contingent Workforce: Size, Characteristics, Earnings, and Benefits, 20 April 2015, <http://www.gao.gov/products/GAO-15-168R>

<sup>112</sup> Bloomberg Businessweek, 20-25 October 2014 Edition, Companies/Industries, Page 20

<sup>113</sup> Asia-Pacific Journal, Scott North, "Limited Regular Employment and the Reform of Japan's Division of Labor", The Asia-Pacific Journal, Vol. 12, Issue 15, No. 1, April 14, 2014, <http://www.japanfocus.org/-Scott-North/4106/article.html>

## Part-Time Workers



The number of U.S. part-time workers has grown 21% since 1 January 2000 to 27,650,000 on 1 October 2017, which is near the all-time high of 28,175,000 in July 2013.<sup>114</sup> The BLS also provides data on two categories of part-time workers: those who work part-time for “economic reasons” and those who work part-time for “noneconomic reasons.”<sup>115</sup> For the most part, those who work for economic reasons do so involuntarily and those who work for noneconomic reasons do so by choice.

- **Part-time workers for economic reasons** work 1 to 34 hours during the reference week for an economic reason such as slack work or unfavorable business conditions, inability to find full-time work, or seasonal declines in demand. Part-time workers for economic reasons are included in the U6 Unemployment category, which is defined as “total unemployed, plus all marginally attached workers, plus total employed part-time for economic reasons, as a percent of the Civilian Labor Force plus all marginally attached workers.”

## Part-Time Workers for Economic Reasons

Slack Work or Could Not Find Full-Time Job



The BLS began reporting on the part-time workforce in June 1955. From June 1955 to April 2009 during the peak of the Great Recession, part-timers who could not find full-time jobs climbed by 401% to slightly over 9 million workers. From April 2009 to October 2017, people started rejoining the labor force and the number of part-timers for “economic reasons” (i.e., have to work involuntarily part-time primarily due to “slack work” conditions), decreased by 44% to 5,122,000

<sup>114</sup> BLS, Table A-9, Selected employment indicators, Part-time Workers, <http://www.bls.gov/webapps/legacy/cpsatab9.htm>

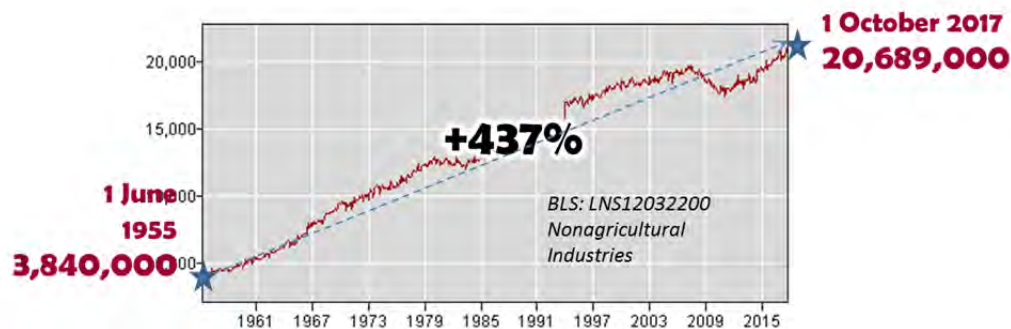
<sup>115</sup> BLS, Table A-8, Employed persons by class of worker and part-time status, <http://www.bls.gov/news.release/empsit.t08.htm>

today. Approximately 60% of today's part-time workers for economic reasons report that they work part-time due to slack work, whereas 40% report that could only find part-time work.

Consequently, part-time work for economic reasons increases in financial downturns (as shown during the 2007 to 2009 period of the Great Recession) and decreases when the U.S. economy is stable and growing. In addition to financial downturns, Jobenomics expects that the revolution in network technology will automate a significant number of manual cognitive jobs in the near future further replacing the full-time workforce with part-time and task oriented workers.

- **Part-time workers for noneconomic reasons** work part-time for noneconomic reasons such as childcare problems, family or personal obligations, school or training, retirement or Social Security limits on earnings, and other voluntary reasons. This excludes persons who usually work full-time but worked only 1 to 34 hours during the reference week for reasons such as vacations, holidays, illness, and bad weather.

## Part-Time Workers for Noneconomic Reasons Choose To Work Part-Time



Since June 1955 to today, part-time workers for “noneconomic reasons” (i.e., chose to work part-time in lieu of standard full-time jobs) rose by a whopping 437% from 3.840,000 in 1955 to 20,689,000 as of 1 October. 20,689,000 part-timers for “noneconomic reasons” represent 17% 124,322,000 of the total private sector non-farm workforce. Jobenomics expects this trend to continue and perhaps accelerate significantly due to the ethnology (cultural and anti-establishment differences) of new workforce entrants.

Since part-time workers for nonenonomic reasons work part-time by choice the network technology revolution and the emerging digital economy are presenting numerous new non-traditional career opportunities, such as the shared-mobility and smartphone apps industries. Uber was founded in 2009 and now has outpaced auto giant General Motors, founded in 1908, in terms of market capitalization and employees. GM is worth about \$44 billion with 212,000 employees. Uber's estimated worth is \$40 billion with 800 full-time employees and an estimated 500,000 contingent workers (mainly drivers) worldwide with approximately half the number in the United States. The mobile phone apps industry as grown in less than a decade from zero in 2008 to 4 billion apps in an \$100 billion marketplace that is expected to double by 2018.

According to a recent Apple press release, as a result of Apple’s App Store’s success, Apple is now responsible for creating and supporting 1.9 million jobs in the U.S. alone.<sup>116</sup>

While the shared-mobility and smartphone apps industries are currently enjoying explosive growth, they could also share the fate of the fracking industry that has gone from boom to bust in short order due to the downturn of gas prices and international competition. Today, the majority of car-sharing drivers and apps developers make below average income as non-core part-time contingent workers. Any adverse financial conditions or new competitive forces could quickly drive these part-timers from working for noneconomic (by choice) reasons to working due to economic (involuntary) reasons.

**Census Bureau Part-Time Workforce Estimates.** According to the U.S. Census Bureau, Current Population Survey, 2017 Annual Social and Economic Supplement, out of a total of 164.6 million American workers 15-years old and over with earnings in 2016, the total number of part-time equivalents was approximately 51.4 million American workers, which is a significantly higher number than the 27.6 million estimated by the BLS.<sup>117</sup>

**Census Bureau Part-Time Workforce Study**  
American Workers by Total Money Earnings in 2016 (Millions)

*Source: Census Bureau, Current Population Survey, 2017 Annual Social and Economic Supplement*

<b>Worked At Full-Time Jobs</b> (Having worked full-time 35 hours or more per week during a majority of the work weeks)				<b>Worked At Part-Time Jobs</b> (Having worked part-time less than 35 hours per week during a majority of the work weeks)			
Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less
131.4	113.3	10.8	7.2	33.4	17.5	6.6	9.2

**Part-Time Equivalents 51.4 Million American Workers**

As highlighted in yellow, of the 51.5 equivalent part-time workers, 33.4 million Americans worked at part-time jobs, 10.8 million full-time workers worked 27 to 49 weeks and 7.2 million worked 26 weeks or less during the year (i.e., part-time due to vacations, illness and other reasons).

From a Jobenomics viewpoint, anyone who works less than 50 weeks a year should be considered “functionally part-time” workers for the same reasons that Not-in-Labor-Force people should be considered “functionally unemployed.” Correspondingly, as highlighted in green, the 17.5 million part-timers that work 50 weeks or more should be considered full-timers for the same reason.

The bottom line of this section of the Jobenomics Unemployment Analysis is that part-time core and non-core contingency workers are a substantial and largely misunderstood part of the U.S. labor

<sup>116</sup> Apple, <https://www.apple.com/pr/library/2016/01/06Record-Breaking-Holiday-Season-for-the-App-Store.html>

<sup>117</sup> U.S. Census Bureau, PINC-05, Work Experience-People 15 Years Old and Over, by Total Money Earnings, Age, Race, Hispanic Origin, Sex, and Disability Status, Person Income in 2016, <https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-pinc/pinc-05.html>

force. If a corporation had such limited visibility of this rapidly growing and essential element of its workforce, it would likely go out of business. Why shouldn't the same be true for a country? The good news is that the BLS has the wherewithal to provide the required information if only they could get adequate funding to do so.

## U.S. Income, Wage and Earnings

According to many economists, the United States is entering one of the tightest labor markets in post-WWII history, which should drive up earnings for middle-class Americans. While this is true, it is only half of the story. For skilled-workers recent median household income gains (up 5.2% in 2015 and 3.2% in 2016) was a welcome relief after a decade of stagnant earnings. On the other hand, the plight of unskilled and under-skilled workers is worsening. As of Q3 2017, there are 6,200,000 job openings that are largely unfilled due to a lack of skilled workers. Correspondingly, corporate America is turning to automation (robotics and artificially intelligent agents) and the contingent workforce to fill the skills gap.

As evidenced by recent protests and violence, the United States has already reached a point of restiveness and anger due to job polarization. Job polarization occurs when middle-class jobs that require moderate skill levels and income, decline relative to those at the top and bottom, requiring relatively greater or fewer skills and income. In 2016, 72% of the 164.6 million American wage earners made below the mean (average) wage of \$59,817 as reported by the Census Bureau.<sup>118</sup> If one adds the 95 million able-bodied adults that voluntarily departed the labor force and the 65 million people who have no reported income, the percentage of below average income Americans jumps to 86%. In other words, the United States has reached a point where 46 million Americans receive above median wage and 279 million Americans report below median wage or no wage at all.

### Total Money Earnings in 2016.

The U.S. Census Bureau collects data and publishes estimates on income and poverty. Since the Census Bureau's Annual Social and Economic Supplement of the Current Population Survey (CPS ASEC) produces the most complete and thorough estimates of income and poverty, the Bureau recommends the CPS ASEC as the primary data source for national estimates. The 2017 CPS ASEC asks detailed questions categorizing income into over 50 sources, based on a sample of about 95,000 addresses from households across America.<sup>119</sup>

### Total Money Earnings in 2016

Source: 2017 ASEC Data

	Civilian Institutional Population		Worked At Full Time Jobs				Worked At Part Time Jobs				Did not work
	Total	Total Worked	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less	
Population (000s)	259,403	164,759	131,391	113,335	10,844	7,213	33,367	17,484	6,640	9,243	94,644
Mean Earnings	\$51,205	\$51,205	\$59,817	\$64,005	\$43,800	\$18,093	\$17,244	\$23,785	\$16,340	\$5,501	\$0

<sup>118</sup> U.S. Census Bureau, PINC-05, Work Experience-People 15 Years Old and Over, by Total Money Earnings, Age, Race, Hispanic Origin, Sex, and Disability Status, Person Income in 2016, <https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-pinc/pinc-05.htm>

<sup>119</sup> U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, Current Population Reports, Income and Poverty in the United States: 2016, issued September 2017, <https://census.gov/content/dam/Census/library/publications/2017/demo/P60-259.pdf>

Total money earnings are shown above. Earnings from wages are only one way to produce income, but are the primary source of income for most Americans. According to the 2017 CPS ASEC data, as highlighted in yellow, 2016 U.S. mean earnings was \$59,817 for 131,391,000 citizens who worked at full-time jobs, \$17,244 for 33,367,000 citizens who worked part-time, and \$0 for the 94,644,000 Not-in-Labor-Force citizens who are capable of work but not working.<sup>120</sup>

**For the purpose of this analysis, rather than using \$59,817 for people who worked at full-time jobs, \$60,000 (\$60K) mean earnings will be used as a benchmark.** However, it is important to understand how earnings, differ from income and household income, which are all addressed herein.

According to the Census Bureau glossary,

- **Earnings** include wages or salaries, net income (gross receipts minus expenses) from nonfarm and farm self-employment, Armed Forces pay, commissions, tips, piece-rate payments and cash bonuses.
- **Income** includes earnings, interest payments, dividends, welfare payments, rental income, child support, alimony, tax rebates, inheritance, and capital gains on stock, real estate and appreciation of other assets.
- **Household income** is the sum of all people (related or otherwise) 15 years and older living in the household.<sup>121</sup>

It is also important to differentiate mean earnings from median earnings.

- **Mean** earnings is the amount obtained by dividing total labor force earnings by the number of American workers.
- **Median** divides the total earnings into two equal parts: one-half of the cases fall below the median and one-half of the cases exceed the median.

Mean and median earnings provide useful metrics to delineate those who are doing well as opposed those who are not doing as well. As it will be discussed in detail throughout this report, below mean earnings represent an acute financial problem for the vast majority of Americans, and a particularly acute challenge for women, minorities, new workforce entrants and a growing cadre of poor white males.

While median household incomes have improved somewhat since the Great Recession, median wage individual earnings have remained stagnant—rising an average of 1.8% per year over the last decade, 2007 to 2016, which was neutralized by an average inflation increase of 1.7% per year. Mean earnings rose 2.4% over the same timeframe. As discussed earlier, the reason that mean earnings (2.4% per year) rose faster over the decade than median earnings (1.8% per year) is largely due to explosive growth of wages at the high end of the wage scale.

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<sup>120</sup> U.S. Census Bureau, PINC-05, Work Experience-People 15 Years Old and Over, by Total Money Earnings, Age, Race, Hispanic Origin, Sex, and Disability Status, Person Income in 2016, <https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-pinc/pinc-05.html>

<sup>121</sup> U.S. Census Bureau, Glossary, <https://www.census.gov/glossary/>

From a Jobenomics perspective, there are a number of factors why U.S. wages have remained stagnant over the last decade for the vast majority of workers.

- Recent advancements in information technology make machine-based labor cheaper than traditional human labor. According to the April 2017 IMF World Economic Outlook, about half the decline of the labor share of income (i.e., the share of national income paid in wages including benefits to workers) in developed economies was due to advances in robotics and artificial intelligence (i.e., algorithms and smart machines).<sup>122</sup>
- The emergence of globalization, increased efficiencies in global supply chains, and a global workforce pits lower-wage foreign workers against higher-paid U.S. workers.
- Growth of the U.S. domestic contingent workforce is replacing high-paid full-time workers with lower paid part-time and task-oriented workers.
- Corporate profits are increasing being used to enhance shareholder value as opposed to increasing worker wages.
- De-unionization of the U.S. private sector workforce, which has reduced collective bargaining power of the labor force with a corresponding increase in corporation power. According BLS data, private sector union membership decreased by 58% since 1983.<sup>123</sup>
- Increased use of non-wage forms of remuneration (bonuses, stocks, benefits, perquisites, etc.) to a small cadre of upper-class executives, managers and high-skilled workers, which results in less use of corporate capital in the form of wages to lower-skilled, working-class citizens.

In contrast to stagnant individual earnings, U.S. median household income increased by 8.5% since 2014. The reason for the large increase to household income can be attributed to three factors.

- A change in the way survey questions are asked due to a redesigned income questions (see Real Median Household Income by Race and Ethnicity: 1967 to 2016 graph on page 91). For the most part, the 5.2% income jump in 2015 was due to how the value of assets was calculated as opposed to a real income rise.<sup>124</sup>
- While wages increased by 8.5% in 2015 and 2016, there is ample evidence that household members are working more hours and supplementing their incomes with two jobs or part-time work to make up a large percentage of this increase.
- Since the Great Recession the U.S. stock markets has soared by nearly 200%, a gain of approximately \$13 trillion dollars. Only half of all Americans are invested in the stock market, mainly via 401(K) and IRAs, which means half of all Americans did not experience the upside of the stock market's dramatic post-recession increase that created an estimated \$5.5 trillion

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<sup>122</sup> International Monetary Fund, World Economic Outlook, April 2017, Chapter 3 : Understanding the Downward Trend in Labor Income Shares, <http://www.imf.org/en/Publications/WEO/Issues/2017/04/04/world-economic-outlook-april-2017#Chapter 3>

<sup>123</sup> BLS, Union Membership In The United States, September 2016, <https://www.bls.gov/spotlight/2016/union-membership-in-the-united-states/pdf/union-membership-in-the-united-states.pdf>

<sup>124</sup> Pew Research Center, Methodology, <http://www.pewsocialtrends.org/2015/12/09/methodology/>

of new net worth. However, Wall Street is not Main Street and stock ownership is heavily-skewed to high net worth individuals as opposed to common workers.

## 2016 U.S. Labor Force Income Earnings By Gender, Race, Ethnicity & New Workforce Entrants

Source: U.S. Census Bureau 2017 Annual Social and Economic Supplement, Jobenomics Analysis

U.S. Workers With Earnings		Above Mean Income >\$60K	Population (Millions)	Below Mean Income <\$60K	Population (Millions)	Total Population (Millions)
By Gender	Both Sexes	28%	45.8	72%	118.8	164.6
	Males	35%	30.1	65%	56.8	86.9
	Females	20%	15.7	80%	62.1	77.7
By Race & Ethnicity	Asian	39%	3.9	61%	6.1	10.0
	White Non-Hispanic	32%	33.5	68%	71.5	105.0
	Black Non-Hispanic	18%	3.6	82%	16.4	20.0
	Hispanic	15%	4.2	85%	23.1	27.3
Entry	15-24 Year Olds	3%	0.7	97%	21.2	21.9

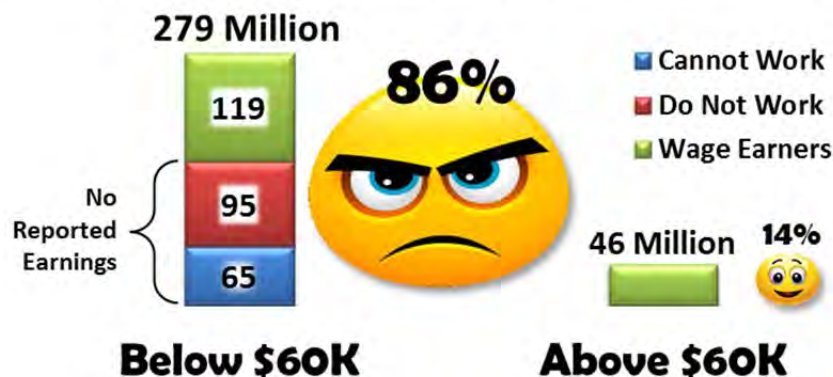
According to the 2017 CPS ASEC report, out of a total of 164,631,000 American workers 15-years old and over with earnings, only 28% (45,787,000) earned above mean income in 2016. In terms of gender, 20% of American female wage earners made above the mean compared to 35% of their male counterparts. By race and ethnicity, Asians set the wage gold standard with 39% of all Asians making above mean income, followed by Whites at 32%, Blacks at 18% and Hispanics at 15%. For entry-level workers aged 15 to 24, a paltry 3% made above mean income due to inexperience and a high percentage of part-time work.

## A Good Reason to Be Discouraged, Frustrated and Angry

Mean Income For Full-Time Jobs in 2016 = \$60K

U.S. Population in 2016 = 324 Million People

Source: Census Bureau, Current Population Survey, 2017 Annual Social and Economic Supplement



At the opposite side of the wage scale, 119 million wage earners (72% of all wage earners) made below mean earnings of \$60K. If the 95 million members of the Not-in-Labor-Force non-wage earners

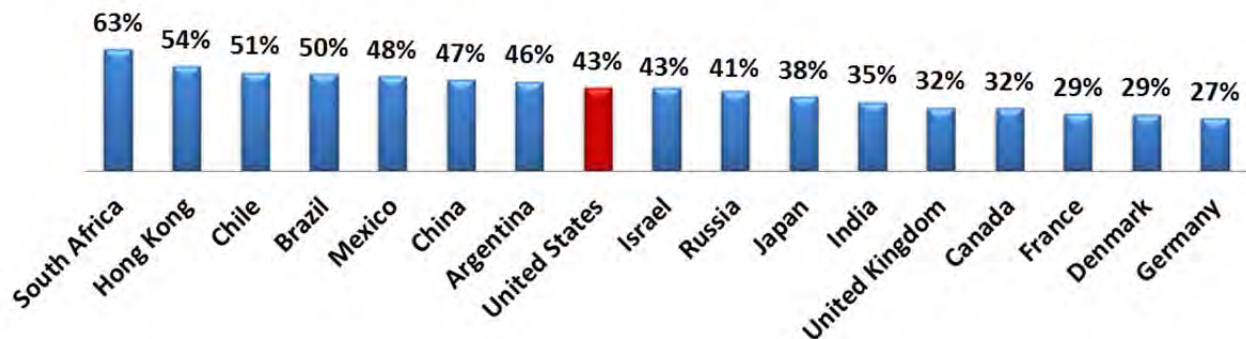
and 65 million citizens who cannot work (e.g., children) were included, **a colossal 86% of all Americans made below mean earnings in 2016**. No wonder why people are discouraged, frustrated, and angry. For many Americans at the base of the U.S. economic pyramid, the American dream is more of an American fantasy. After a brief period of wane during the Great Recession of 2007-2009, income inequality is growing again in America.

U.S. income inequality is often associated with income fairness and is now a dominant issue for policy-makers, media and social activists. Income inequality is defined as unequal distribution of household or individual income across the various participants (regional, social, racial, gender) in an economy. Income inequality slows economic growth, reduces social mobility, causes financial conflicts and creates discord. A survey for the World Economic Forum identified growing income inequality as one of the world's most pressing issues for the next decade.

A number of international organizations, like the World Bank and International Monetary Fund, use the Gini Ratio to define income inequality among nations. The *Global Index of Income Inequality* chart (below) was created by using US Central Intelligence Agency data listed in their widely-accessed World Factbook's *Distribution of Family Income-Gini Index*<sup>125</sup>, which was compiled by the CIA using data from various international institutions. The Gini Index (also known as the Gini coefficient or Gini ratio) is designed as a measurement of income distribution that ranges from 0 (or 0%), representing perfect equality, to 1 (or 100%), representing perfect inequality.

## Global Index of Income Inequality

Source: CIA World Factbook Country Comparison: Distribution of Family Income—Gini Index

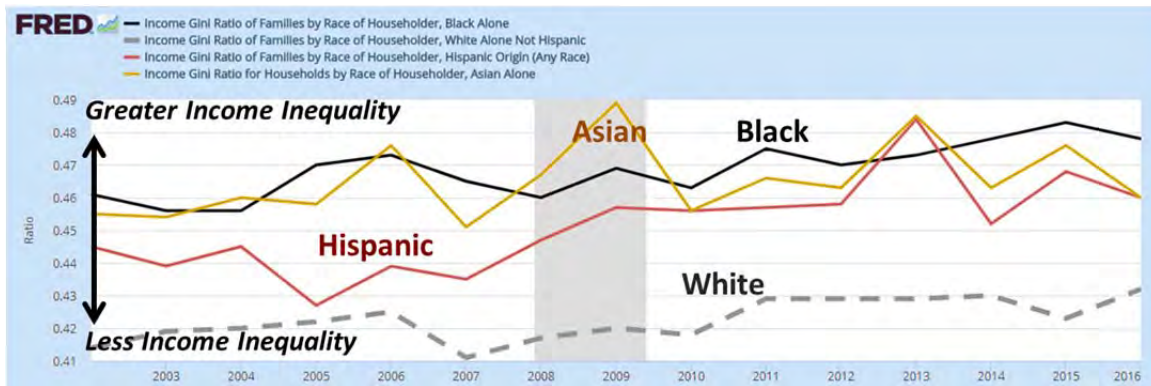


As far as global income inequality, the United States ranks 43<sup>rd</sup> out of 149 nations in terms of income inequality as reported by the CIA, which includes a number of very small nations and nations with questionable reporting data. As compared to a selected set of more mature nations, as shown above, the United States ranks closer to the middle of the pack. The world's worst income inequality is in emerging and totalitarian countries. Industrial and democratic countries are much more equitable in terms of income. Globalization has narrowed the income inequality between nations, but has exacerbated income inequality within nations, due to global competition, international supply chains, global capital markets, and new information technology.

<sup>125</sup> CIA World Factbook, Distribution of Family Income-Gini Index, <https://www.cia.gov/library/publications/the-world-factbook/fields/2172.html>

## Gini Ratio of U.S. Families by Race and Ethnicity

Source: US Federal Reserve Bank of St. Louis, GINIBAF, GINIWAH, GINIHARF, GINIAAH data



The Federal Reserve (the U.S. central bank) reports on income inequality using the Income Gini Ratio (also called the Gini Index or Gini Coefficient) by race.<sup>126</sup> Similar to the Gini Index, the Gini Ratio is defined as a measurement of income distribution that ranges from 0, representing perfect equality, to 1, representing perfect inequality. As shown, Black Americans suffer the worst inequality within their own race. In other words, the gap between rich and poor (income inequality) within the Black community is greater than the gap in other races. Since the turn of the century, Asians have vied with Blacks for the most unequal demographic group. Historically, the Hispanic community is the most homogeneous in terms of distribution of household income. Quite surprisingly and contrary to common knowledge, Fed Gini data shows that Whites (the dashed gray line) are the least unequal of the four demographic groups, which implies that Whites are more financially homogeneous within their demographic community than any of the major minority groups.

Consequently, when discussing income inequality it is often more important to measure the gap within races/ethnicities as it is between races/ethnicities. Families are usually more effective taking care of families than strangers. Malcolm X said it best, “A race of people is like an individual man; until it uses its own talent, takes pride in its own history, expresses its own culture, affirms its own selfhood, it can never fulfill itself.”

Income inequality is not a condition that we should tolerate, but it is a myth that it is always bad. Throughout history, income inequality has been a powerful motivator. The American Revolution had issues of income inequality at its roots. Today, many of the greatest American success stories are about people from humble beginnings. Some degree of income inequality can be tolerated as long as a corresponding degree of income opportunity exists. Individuals and businesses would not innovate without the opportunity to reap rewards. When opportunity exceeds inequality, people are generally optimistic and motivated to succeed. However, when inequality exceeds opportunity, people are unhappy and motivated towards discordance. Unfortunately, America has entered a period where inequality exceeds opportunity, which places the U.S. economy at risk.

<sup>126</sup> US Federal Reserve Bank of St. Louis,  
<http://research.stlouisfed.org/fred2/graph/?id=GINIBAF,GINIWANHF,GINIHARF,GINIAAH>

While most middle class Americans are cautiously optimistic about positive economic trends, media's perpetual focus on the "rich" continues to fuel the income inequality fire. While it is true that the wealthiest Americans have benefited financially (largely due to a historic stock market increase) to a much greater extent than average Americans, fueling latent anger will not serve America well over the long-term.

Rather than focus on income inequality, America needs a reset on income opportunity. Income opportunity involves money that people can earn, as opposed to money that they have. The term opportunity implies favorable conditions or prospects in order to attain advancement or success. Income opportunity is directly influenced by socio-economic mobility. Socio-economic mobility is the movement of an individual or group from one income level to another, and can be upward or downward.

With a few exceptions, mass upward socio-economic mobility has been the general trend since the creation of the United States. Most people who enter the US workforce from high school or college move from initial lower paying jobs to higher paying careers. Those who drop out of school or society are likely to entrench themselves in the lowest income quintile with much lower mobility. While welfare and unemployment payments provide a safety net for those in the lowest quintile, these payments tend to trap these same individuals in low quintiles by eroding their socio-economic mobility. The longer a person is out of the workforce, the harder it is for that person to get a meaningful job.

## Income and Earnings by Gender.

Gender pay gap is a highly-charged political and social issue. Unfortunately, few Americans fully understand the data behind gender income inequality. While it is true that American men make more than women, the gap is narrowing.

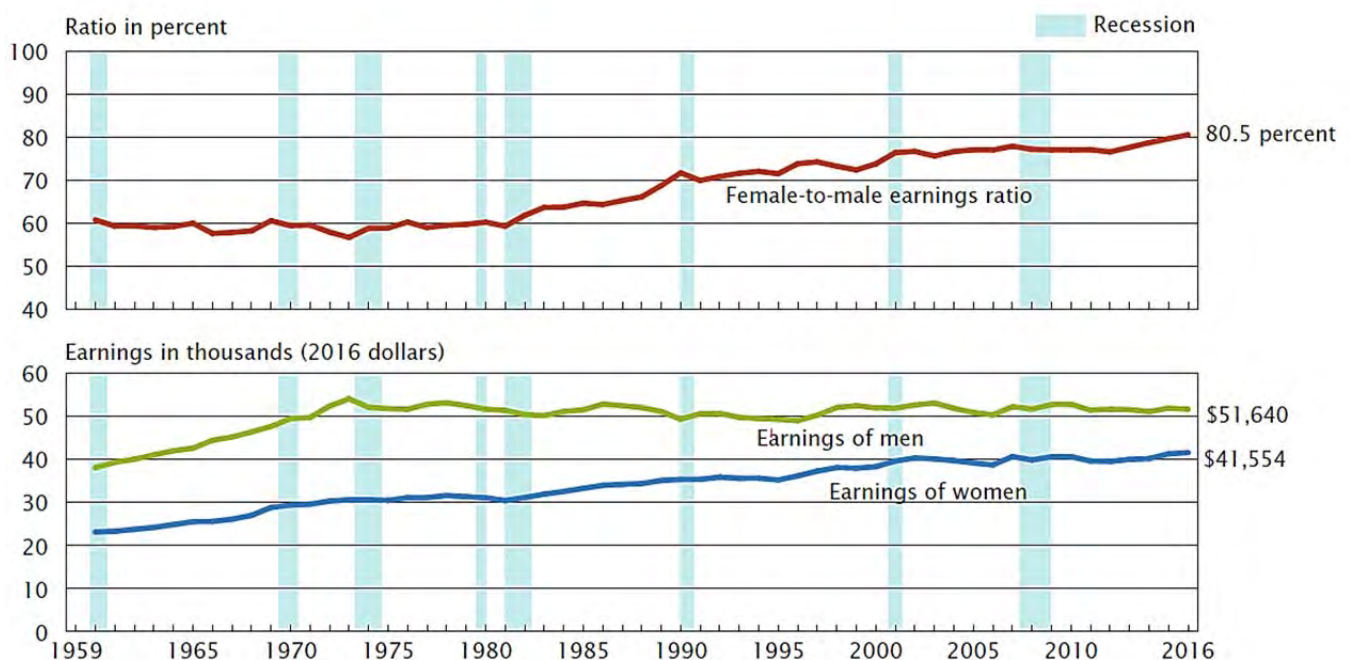
In 2016, American women earned only 2.4% less, or 98 cents on every dollar, than men in similar jobs, according PayScale, a leading U.S. online compensation information company.<sup>127</sup> This 2.4% figure is a far cry from the widely advertised 76% number by activists. On the other hand, across all jobs in the United States, PayScale estimates that women earn 23.7% less or 76% for every dollar earned by men.

To take a deeper dive into gender gap statistics, Jobenomics analyzed gender income and earnings based on official government data reported by the U.S. Census Bureau and the Bureau of Labor Statistics.

According to the Census Bureau's 2016 Income and Poverty in the United States report women are closing the gap between the sexes over the last six decades.

### Female-to-Male Earnings Ratio and Median Earnings of Full-Time, Year-Round Workers 15 Years and Older by Sex: 1960 to 2016

Source: U.S. Census Bureau, Income and Poverty in the United States: 2016<sup>128</sup>



As shown, in terms of **median** income, since 1960, American females have narrowed the female-to-male earnings ratio gap from 60% to 80.5% in 2016 based on real median earnings of men (\$51,640)

<sup>127</sup> PayScale, Gap Analysis, What Equal Pay Day Gets Wrong, <https://www.payscale.com/data-packages/gender-pay-gap>

<sup>128</sup> U.S. Census Bureau, Income and Poverty in the United States: 2016, issued September 2017, Figure 2, Page 9, <https://www.census.gov/content/dam/Census/library/publications/2017/demo/P60-259.pdf>

and women (\$41,554) who worked full-time, year-round. This ratio is based on **median** earnings (an occupational median wage estimate is the boundary between the highest paid 50% and the lowest paid 50% of wage earners) as opposed to **mean** earnings (an average wage; an occupational mean wage estimate is calculated by summing the wages of all the employees and then dividing the total wages by the number of employees).

### Median versus Mean Earnings by Sex in 2016

Median Earnings	Worked At Full Time Jobs				Worked At Part Time Jobs			
	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less
Female	\$39,157	\$41,554	\$29,346	\$9,109	\$10,869	\$15,708	\$10,473	\$2,570
Male	\$49,270	\$51,640	\$31,495	\$10,239	\$10,714	\$15,711	\$11,176	\$3,268
Difference	-\$10,113	-\$10,086	-\$2,149	-\$1,130	\$155	-\$3	-\$703	-\$698
Earnings Ratio	79.5%	80.5%	93.2%	89.0%	101.4%	100.0%	93.7%	78.6%

Mean Earnings		Source: 2017 CPS ASEC Data for Year 2016						
Female	\$50,025	\$53,372	\$40,374	\$16,144	\$15,972	\$21,757	\$14,599	\$4,911
Male	\$67,270	\$71,916	\$46,860	\$19,754	\$19,410	\$27,522	\$19,516	\$6,330
Difference	-\$17,245	-\$18,544	-\$6,486	-\$3,610	-\$3,438	-\$5,765	-\$4,917	-\$1,419
Earnings Ratio	74.4%	74.2%	86.2%	81.7%	82.3%	79.1%	74.8%	77.6%

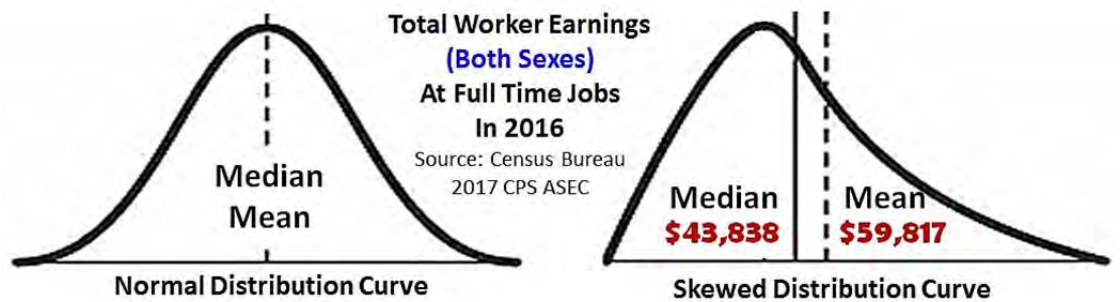
This chart, derived from 2017 CPS ASEC raw data by Jobenomics, shows in greater detail the differences between the 164.6 million American males and females who received earnings in 2016. In 2016, **median** earnings of men (\$51,640) and women (\$41,554) was significantly different from the **mean** earnings of men (\$71,916) and women (\$53,372), which accounts for the difference between the 80.5% and 74.2% female-to-male earnings ratios.

- **Median** (middle) earnings data for people who worked at full-time jobs for 50+ weeks per year is highlighted in dark yellow, and shows that the 80.5% female-to-male earnings ratio metric in relation to other full-time and part-time work data. With the exception of the total part-time work category, highlighted in light green, women earned less than their male counterparts.
- **Mean** (average) earnings data, highlighted in light red, places the female-to-male earnings ratio at 74.2% for full-time yearly workers. In terms of mean earnings, women earned less than their male counterparts in all listed categories.

Median household income is the single most widely used measure of income by the Census Bureau. Medians are often viewed as a better central measure than means, which can be skewed by a small number of extremely large values.

For the purposes of this report, **Jobenomics prefers means over medians since these “skews” are important in understanding gender income inequality.**

## Examples of Skewed Distribution Curves



In a normal distribution curve, median and mean are the same. When the distribution curve is skewed to the left due to the preponderance of low wage earners and higher income inequality, median is lower than the mean. Total worker earnings for both sexes that work for full-time jobs are shown. In 2016, the median income was much lower (\$43,838) than mean income (\$59,817), which shows the severity of skewing and why Jobenomics prefers to use mean income in comparing the disparities of income disparities and income inequality.

## Percent of U.S. Wage Earners Above & Below Mean Income in 2016

	Total Wage Earners		Male		Female	
Wage Earners In 2016	164,631,000	100%	86,888,000	100%	77,743,000	100%
<b>Above Mean Earnings</b>	45,787,000	28%	30,108,000	35%	15,679,000	20%
<b>Below Mean Earnings</b>	118,844,000	72%	56,780,000	65%	62,064,000	80%

Source: U.S. Census Bureau 2017 CPS ASEC Data, Jobenomics Analysis

As highlighted in yellow, according to 2017 CPS ASEC data, out of a total of 164,631,000 American workers 15-years old and over with earnings, only 28% earned above **mean** earnings in 2016. In terms of gender, 35% of American male wage earners made above the mean compared to 20% of their female counterparts.

## 2016 Income Earnings Profile by Gender

Millions of Workers With Earnings, Age 15 and Over

Source: Census Bureau Data, Jobenomics Analysis

Below Mean Earnings <\$60K	Males		Females		Above Mean Earnings >\$60K	Males		Females	
	Full-Time Work	Part-Time Work	Full-Time Work	Part-Time Work		Full-Time Work	Part-Time Work	Full-Time Work	Part-Time Work
	45,175,000	11,605,000	41,794,000	20,270,000		29,394,000	714,000	14,962,000	717,000
	56,780,000		62,064,000			30,108,000		15,679,000	
	118,844,000					45,787,000			

Total American **164,631,000** Wage Earners

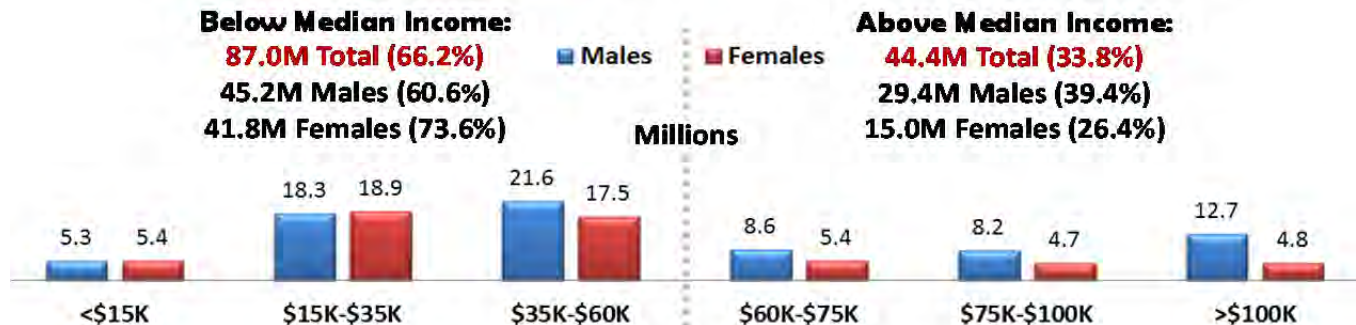
As shown, the number of male workers earning below mean income was 9% lower than their female counterparts (56,780,000 versus 62,064,000). Whereas, the number of males earning above mean income was 93% higher than females (30,108,000 versus 15,679,000).

## Strategic Snapshot of 2016 Income Earnings by Gender

Source: 2017 CPS ASEC Supplement, PINC-05 Data, Both Sexes<sup>129</sup>

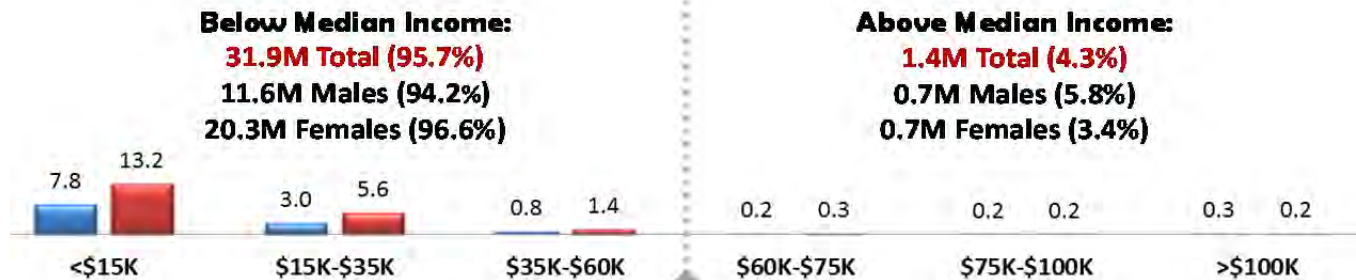
### Full-Time Labor Force

**131.3 Million With Earnings: 72.6 Million Males, 56.8 Million Females**



### Part-Time Labor Force

**33.3 Million With Earnings: 12.3 Million Males, 21.0 Million Females**



**Mean Income For Full-Time Workers = \$60K (\$59,817)**

Source: U.S. Census Bureau Data, Jobenomics Analysis

Out of a population of 324,000,000 in 2016, 164,631,000 Americans 15-years old and older worked with earnings. 80% (131,391,000) worked full-time and 20% (33,367,000) worked part-time during the work year. The full-time workforce was 57% male (74,609,000) and 43% female (56,783,000). The part-time workforce was 37% male (12,337,000) and 63% female (21,030,000).

There are six (<\$15K, \$15K-\$35K, \$35K-\$55K, \$55K-\$75K, \$75K-\$100K, >\$100K) categories for both sexes for the full-time workforce and six categories for the part-time workforce. Numbers and percentages for both sexes are shown for each of these twelve categories. While females tend to outnumber males in the lower wage categories and males outnumbered females in the higher categories, the differences are not substantial in the low wage categories but are noticeably larger in the high wage categories. The greater than \$100K full-time category, males outperform females by a factor of 2.6-to-1 (12.7 million versus 4.8 million respectively).

<sup>129</sup> U.S. Census Bureau, Current Population Survey (CPS) Annual Social and Economic (ASEC) Supplement, PINC-05. Work Experience-People 15 Years Old and Over, by Total Money Earnings, Age, Race, Hispanic Origin, Sex, and Disability Status, Personal Income in 2016, Both Sexes 15 Years and Over, <https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-pinc/pinc-05.html>

66.2% of all wage earners (87.0 million) who worked at full-time jobs in 2016 earned below mean earnings. Within this group, 60.6% (45.2 million) of male wage earners and 73.6% (41.8 million) of female wage earners made below mean earnings.

95.7% of all wage earners (31.9 million) who worked at part-time jobs in 2016 earned below mean earnings. Within this group, 94.2% (11.6 million) of male wage earners and 96.6% (20.3 million) of female wage earners made below mean earnings. Surprisingly, female wage earners made more money than their male counterpart in the part-time categories. At the lowest (below \$15K) category, females outperformed males by a factor of 1.7-to-1 (13.2 million versus 7.8 million respectively).

While the part-time workforce is currently only one-third the size of the full-time workforce, if Jobenomics is correct regarding the contingent workforce becoming the dominant form of U.S. labor in the near future, income disparity for low wage earners of both sexes will grow in importance and must be addressed now with actionable solutions.

## Wage Earner Comparison by Gender

American Workers 15 Years Old and Over by Total Money Earnings in 2016

Data Source: U.S. Census Bureau, Current Population Survey, 2017 Annual Social and Economic Supplement data, Jobenomics Analyses

Wage Earners	Worked At Full-Time Jobs (Having worked full-time 35 hours or more per week during a majority of the work weeks)				Worked At Part-Time Jobs (Having worked part-time less than 35 hours per week during a majority of the work weeks)			
	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less
<b>Both Sexes (000s)</b>	<b>131,391</b>	113,335	10,844	7,213	<b>33,367</b>	17,484	6,640	9,243
Mean Earnings	<b>\$59,817</b>	\$64,005	\$43,800	\$18,093	<b>\$17,244</b>	\$23,785	\$16,340	\$5,501
<b>Male (000s)</b>	<b>74,570</b>	64,953	5,723	3,894	<b>12,316</b>	6,143	2,346	3,828
Mean Earnings	<b>\$67,270</b>	\$71,916	\$46,860	\$19,754	<b>\$19,410</b>	\$27,522	\$19,516	\$6,330
<b>Female (000s)</b>	<b>56,757</b>	48,328	5,110	3,319	<b>20,985</b>	11,317	4,279	5,389
Mean Earnings	<b>\$50,025</b>	\$53,372	\$40,374	\$16,144	<b>\$15,972</b>	\$21,757	\$14,599	\$4,911

### Gender Wage Disparity

-26%	Female compared to Male	-18%
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This wage earner comparison by gender chart provides more detailed information regarding the amount of time per week for both sexes relative to the mean income of \$59,817.<sup>130</sup> What is most striking about this chart is that all full-timers are not working full-time due various reasons such as new entrants and reentrants, layoffs and illness. Only 86% (113,335,000 out of a total of 131,391,000 full-time workers) work 50 weeks or more a year. 14% or 18,057,000<sup>131</sup> work less than 49 weeks or less and are in actuality quasi-part-timers. Adding these 18,057,000 quasi-part-timers to the 33,367,000 workers who are officially classified as part-timers equals a grand total of 51,424,000 part-time workers. 51,424,000 is almost twice as high as the number of U.S. part-time workers (27,569,000) and 41% of the private sector workforce (124,051,000) as calculated by the BLS as 1

<sup>130</sup> People are classified as having worked part-time during the preceding calendar year if they worked less than 35 hours per week in a majority of the weeks during the year. Conversely, people are classified as having worked full-time if they worked 35 hours or more per week during a majority of the weeks in which they worked. Wages include total money earnings received for work performed during 2014. Earnings for self-employed businesses are considered wages.

<sup>131</sup>  $10,844,000 + 7,213,000 = 18,057,000$

September 2017. 41% approximates the 40% continent workforce calculation as discussed in this analysis and in the Jobenomics Comprehensive U.S. Labor Force & Employment Report.

As highlighted in light yellow on Gender Wage Disparity box at the bottom of the Wage Earner Comparison chart, for full-time workers, female mean earnings were 26% less than males (\$50,025 versus \$67,270). For part-time workers, female mean earnings were 18% less than males (\$15,972 versus \$19,410).

**CPS ASEC data therefore supports the claim that females earn 72.4% (mean) to 80.5% (median) of the earning of their male counterparts** for full-time equivalent workers. CPS ASEC data further indicates that females earned less across all work categories and were far more likely to work part-time. Consequently, female workers are poorer and more likely to be part of the contingent workforce than their male counterparts. These are extremely important issues that need to be rectified. However, these statistics do not adequately explain the critical question of why females earn less.

The fact that almost twice as many men make above mean earnings than women largely explains gender pay gap and is often cited as the basis for the “glass ceiling” argument (i.e., an intangible barrier within a hierarchy that prevents women from obtaining upper-level positions). According to the Korn Ferry Institute, a preeminent authority on leadership and talent, across all C-suite titles (CEO-Chief Executive Officer, CFO-Chief Financial Officer, CIO-Chief Information Officer, CMO-Chief Marketing Officer, CHRO-Chief Human Resources Officer) in six leading U.S. industries (Consumer, Energy, Financials, Life Sciences, Industrials and Technology) only 24% are occupied by women executives, ranging from a low of 1% of all CEOs to a high of 55% of all CHROs.<sup>132</sup>

There are many reasons cited for the glass ceiling ranging from male chauvinism to women’s choice of occupations. The U.S. female workforce is concentrated on generally lower paying jobs like teaching, nursing, secretarial and healthcare occupations that are approximately 80% female occupations. Women are also stymied by the so-called “motherhood penalty” that disadvantages women in highly competitive upper management positions that require long hours as a “sign of commitment and leadership potential”.<sup>133</sup> Regardless of reason, the overwhelming predominance of women in lower wage categories is one of the primary reasons that able-bodied women chose not to work as well as a major inducement towards welfare and other means of public assistance.

From a Jobenomics perspective, ethnology (cultural and relational differences) plays a major role on answering why females make less income. The diversity movement is narrowing the gap between female and male income inequities, but not fast enough to address the problem of an eroding American middle-class and energizing a lukewarm economy. To be more effective, the diversity movement needs to shift from its visible attributes orientation, such as gender and race, to more

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<sup>132</sup> Korn Ferry Institute, The gap at the top, Women in the C-Suite, 17 August 2016, <https://www.kornferry.com/institute/the-gap-at-the-top?articles>

<sup>133</sup> The Economist, The Gender Gap, Women still earn a lot less than men, despite decades of equal-pay laws. Why?, 7 October 2017, <https://www.economist.com/news/international/21729993-women-still-earn-lot-less-men-despite-decades-equal-pay-laws-why-gender>

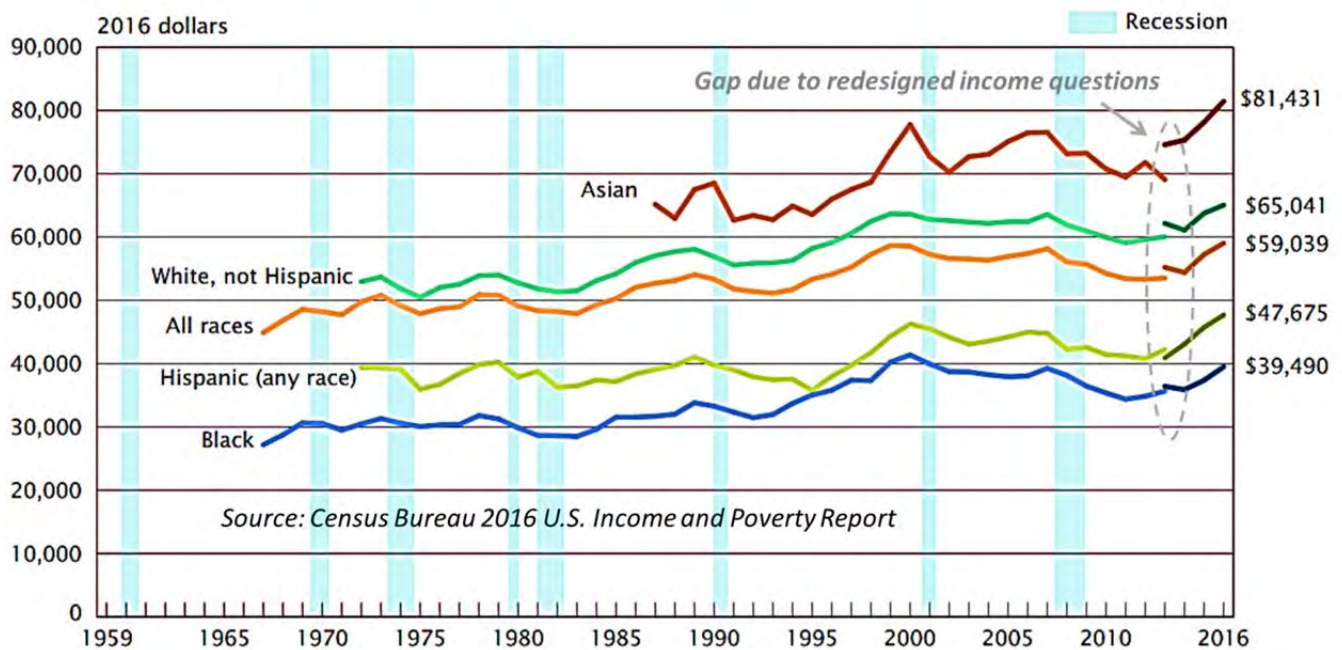


invisible attributes like parental, marital, socio-economic status, as well as educational, experiential, employment experience in order to craft solutions that will enhance the labor force.

To that end, Jobenomics emphasizes women-owned-businesses over women-in-business as a potential national initiative that will empower women to enter and succeed in the labor force with greater satisfaction and earnings. While there is nothing wrong with women pursuing opportunities with large established institutions, Jobenomics believes that many women will find greater opportunity and fulfillment by creating their own small and self-employed businesses that are tailored to their needs, lifestyles and expectations based on their invisible attributes and educational, experiential and employment experience. Contrary to common knowledge, the rate of employment growth and revenue of women-owned businesses has outpaced the economy and male-dominated businesses for the last three decades. In a gender-neutral digital economy, women can compete globally from home-based businesses in ways never before possible.

## Income and Earnings by Race and Ethnicity.

### Real Median Household Income by Race and Ethnicity: 1967 to 2016



The good news, according to the Census Bureau's 2016 Income and Poverty in the United States report, is that since 2014 median U.S. household income increased by 8.5% in real terms. As shown, the biggest percentage upturns were in minority households. Asian Americans are overwhelming more prosperous than other races and ethnicities with a 2016 median household income of \$81,431 compared to Whites at \$59,039, Hispanics at \$47,675 and Blacks at \$39,490. The bad news is that the gaps are not closing or the lines converging between the various races and ethnicities.

Year 2011, marked the first year in U.S. history that minority births exceeded White births. In 2015, over 50% of all U.S. children aged 5 years old were minorities. By 2020, more than 50% of all U.S. children are expected to be part of a minority race or ethnic group. By 2044, America will be a minority-majority nation.

California, Texas, New Mexico and Hawaii are already minority-majority states. Minority-owned businesses are already the fastest growing group in the American business community. Unleashing the potential power minority business owners will greatly benefit the U.S. economy and help unite a race-divided nation.

As forecasted by the U.S. Census Bureau, by 2044 minorities are projected to be in the majority (over 50% of the U.S. population) given current demographic growth rates.<sup>134</sup>

<sup>134</sup> U.S. Census Bureau, Projections of the Size and Composition of the U.S. Population: 2014 to 2060, March 2015, <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>

## Population Growth Rates by Race & Ethnicity

Source: US Census Bureau

	2000	2014	Growth Rate 2000-2014	2060	Growth Rate 2014-2060
<b>Total Population</b>	282,125,000	318,748,000	<b>11%</b>	416,795,000	<b>31%</b>
<i>Sum of race groups adds to more than the total population because individuals may report more than one race.</i>					
<b>White Non-Hispanic</b>	194,729,000	198,103,000	<b>2%</b>	181,930,000	<b>-8%</b>
<b>Three Major Minority Groups</b>					
<b>Hispanic</b>	35,818,000	55,410,000	<b>35%</b>	119,044,000	<b>115%</b>
<b>Black</b>	34,658,000	42,039,000	<b>18%</b>	59,693,000	<b>42%</b>
<b>Asian</b>	10,684,000	17,083,000	<b>37%</b>	38,965,000	<b>128%</b>
<b>Other Major Minority Groups</b>					
<b>Native American/Islanders</b>	2,874,791	4,691,000	<b>39%</b>	6,801,000	<b>45%</b>
<b>Two or More Races</b>	6,826,228	7,995,000	<b>15%</b>	26,022,000	<b>225%</b>

From year 2000 to 2014, Whites grew only 2% since the turn of the Century as opposed to 37% for Asians, 35% Hispanics and 18% for Blacks. From year 2014 to 2060, the Census Bureau projects that Whites will decline by 8%, whereas Asians are projected to grow by 128%, followed by Hispanics at 115% and Blacks at 42%. The multiracial (officially “two or more races”) population is projected to grow by an incredible rate of 225%.

**As the largest U.S. minority group, Hispanics are transforming the American landscape.** In 2007 at Los Pinos (the Mexican White House), this author queried the former politician and First Lady of Mexico, Margarita Zavala de Calderón, about the future of Hispanic Americans. Her answer was quite unexpected. She stated that “one-half of all Americans will be Hispanic or married to a Hispanic by 2040” and their participation would be paramount to the collective success of both the U.S. and Mexican economies. So far, her prognostication appears to be prophetic. As shown above, from 2000 to 2060, the U.S. Hispanic population is projected to increase from 35,818,000 to 199,044,000, an increase of 83,226,000 or 62% of all population growth in America during this time period.

From a Jobenomics perspective, Americans spend entirely too much time debating income inequality and inequities between White-haves and minority-have-nots. As indicated by U.S. Census Bureau and U.S. Bureau of Labor Statistics data, the numbers of White-have-nots far exceed White-haves, and are comparable to minority-have-nots at the lower end of the wage scale. On the other hand, based on projected demographic trends, minority job and wealth creation is essential to American economic prosperity and social stability as the United States transitions from a White-majority nation to a minority-majority nation. The primary solution to enhancing minority labor force participation and increasing wealth in minority communities involves minority-owned business creation, which is growing significantly faster than White-owned business.

The Census Bureau performs a Survey of Business Owners twice each decade.<sup>135</sup> The 2011 Survey was conducted for business owners in 2007 and the 2015 Survey for 2012 owners. This growth rate chart shown below was developed by Jobenomics as a summary of these surveys to show the

<sup>135</sup> U.S. Census Bureau, Survey of Business Owners, <https://www.census.gov/econ/overview/mu0200.html>

tremendous rate of growth for minority-owned firms during the Great Recession of 2007 to 2009 and the period of slow U.S. economic growth during the post-recession recovery.

## Growth Rate of Minority-Owned Businesses

Source: U.S. Census Survey of Business Owners 2007 & 2015, Jobenomics Analysis, \$ Millions

Ownership	Year	Total Firms	Sales, Receipts, Shipment Value	Employer Firms	Sales, Receipts, Shipment Value
All U.S.	2007	27,092,908	\$30,031,520	5,735,562	\$29,058,828
	2012	27,626,362	\$33,537,004	5,424,393	\$32,478,441
Growth Rate		2%	12%	-5%	12%
White	2007	22,595,146	\$10,240,991	4,639,743	\$9,406,549
	2012	21,748,125	\$12,986,134	4,523,536	\$12,109,855
Growth Rate		-4%	27%	-3%	29%
All Minorities	2007	5,759,209	\$1,024,802	766,533	\$860,492
	2012	7,996,226	\$1,565,881	923,140	\$1,344,170
Growth Rate		39%	53%	20%	56%
Hispanic	2007	2,260,269	\$350,661	248,852	\$279,921
	2012	3,320,563	\$517,362	291,335	\$423,005
Growth Rate		47%	48%	17%	51%
Black	2007	1,921,864	\$135,740	106,566	\$97,145
	2012	2,593,168	\$187,638	110,786	\$140,542
Growth Rate		35%	38%	4%	45%
Asian	2007	1,549,559	\$506,048	397,426	\$453,574
	2012	1,937,368	\$793,552	489,387	\$719,736
Growth Rate		25%	57%	23%	59%

All U.S., White, Black, Asian, Hispanic and All Minority (including other racial and ethnical minorities) firms are shown. "Total Firms" include all firms from very big to very small nonemployer (e.g., the self-employed) businesses. "Employer Firms" employ few to thousands of workers.

From 2007 to 2012, All U.S. "Total Firms" grew at 2%, White-owned firms decreased -4%, and All Minority-owned firms increased by 39%, which is incredible considering the austere times and onerous lending environment from financial institutions. During this time period, Hispanic-owned firms grew at 47%, followed by Black-owned at 35% and Asian-owned at 25%. During the same period, All U.S. and White-owned "Employer Firms" downsized by -5% and -3% respectively. All Minority-, Hispanic-, Black- and Asian-owned firms grew by 20%, 17%, 4% and 23% respectively. In addition, during this time period, the total number of minority-owned firms grew 5.8 million to 8.0 million firms, a 39% increase mainly due to nonemployer/self-employed firm growth. In comparison, White-owned decreased during the same period.

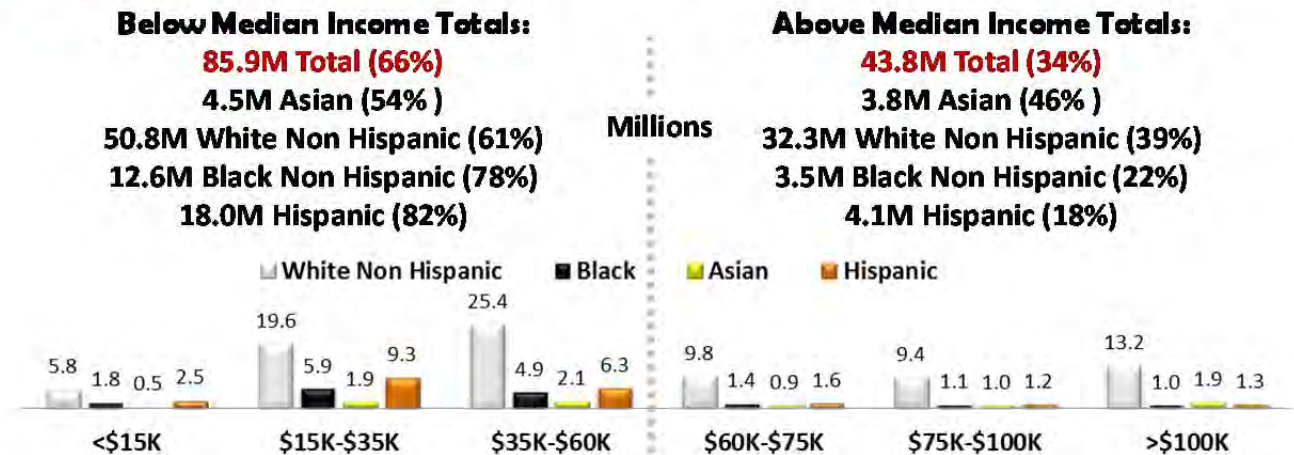
The 2015 Census Bureau Survey of Business Owners also provides detail on sales, receipts and shipment values for all firms. Minority firms did extremely well. In 2007, All Minority-owned firms contributed approximately \$1 trillion to the U.S. economy. In 2012, this amount increased by a combined 53% to \$1.6 trillion. Asian-owned sales, receipts and shipment values increased during this period by 57%, followed by Hispanic-owned by 48% and Black-owned by 38%.



(Hispanics, Black and Asian) and 198 million Whites for a 1-to-1.7 ratio. The Minority-to-White ratio for people earning below mean earnings is 1-to-1.6 (45.6 million versus 71.5 million), which surprisingly indicates that poorer Whites are slightly more financially disadvantaged compared to Minority wage earners. Not surprisingly, Minority-to-White ratio for people earning above mean earnings is 1-to-2.6 (11.7 million versus 33.5 million), which indicates that richer Whites are making almost three times as much as the average minority citizen.

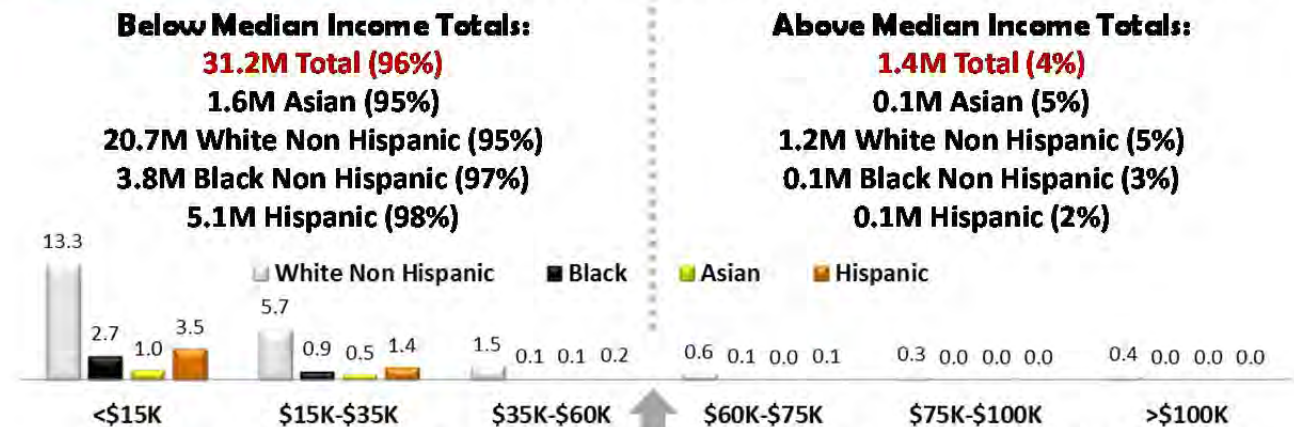
## Full-Time Labor Force in 2016

**129.7 Million With Earnings:** 83.2M White, 22.1M Hispanic, 16.2M Black, 8.3M Asian



## Part-Time Labor Force in 2016

**32.8 Million With Earnings :** 21.9M White, 5.2M Hispanic, 3.9M Black, 1.7M Asian



**Mean Income For Full-Time Workers = \$60K (\$59,817)**

Source: U.S. Census Bureau Data, Jobenomics Analysis

The total number of wage earners from **all** Americans was 164.6 million workers, of which 131.4 worked at full-time jobs and 33.4 million at part-time jobs. As shown above,

- Of the 129.7 million **full-time workers** from the four major racial and ethnic minority groups, 83.2 million were White, followed by 22.1 million Hispanics, 16.2 million Blacks and 8.3 million Asians.

Of the four racial and ethnic groups, the highest wage earners were Asian (46% above mean wages), followed by Whites (39%), Blacks (22%) and Hispanic (18%).

2016 Full-Time Wage Earners (Millions)	Asian	White Non Hispanic	Black Npn-Hispanic	Hispanic	Total
	8.3	83.1	16.2	22.1	129.7
<\$15K	6%	7%	11%	11%	
\$15K-\$35K	23%	24%	37%	42%	
\$35K-\$60K	25%	31%	30%	28%	
\$60K-\$75K	11%	12%	9%	7%	
\$75K-\$100K	12%	11%	7%	5%	
>\$100K	22%	16%	6%	6%	
	100%	100%	100%	100%	

This chart shows the percentage of people within their group by wage category and color code in rough terms of wage class. Red generally is associated with poor and low wage earners making less than \$35,000 per year. Yellow roughly indicated middle-class incomes. Green represents higher-income categories for wage earners making over \$75,000 per year. Whites represent the largest demographic in the middle class category (yellow, \$35K to \$75%). Asians are the highest wage earners in the two high-income categories (green). In the over \$100K category, Asians make 6% more than Whites and 16% more than Blacks and Hispanics. The differences between each of the racial and ethnic groups are much narrower at the bottom of the wage scale (red). Based on this data, the notion that income inequality is exclusive to Blacks and Hispanics is nonsense. 29% of all Asians and 31% of all Whites are considered poor or low income Americans.

- Of the 32.8 million **part-time wage** earners from the four major racial and ethnic minority groups, 21.9 million were White, followed by 5.2 million Hispanics, 3.9 million Blacks and 1.7 million Asians. It is interesting to note that Whites significantly outnumbered minorities in the lowest wage earning categories, 21.9 million versus 10.8 million. In terms of percentages (shown below), the percentages are roughly equal ranging for 87% to 94% of all people working part-time making subsistence-level earnings. Many of these people are working by choice for non-economic reasons (supplemental income, summer jobs, etc.). However, many are not working by choice.

2016 Part-Time Wage Earners (Millions)	Asian	White Non Hispanic	Black Npn-Hispanic	Hispanic
	1.7	21.9	3.9	5.2
<\$15K	61%	61%	69%	67%
\$15K-\$35K	28%	26%	24%	27%
	90%	87%	93%	94%

- The group with the largest number of people earning **above mean income** working full-time in 2016 were 32.3 million Whites followed by 4.1 million Hispanics, 3.8 million Asians with and Blacks 3.5 million. The group with the largest number people earning **below average income**

working full-time were 50.8 million Whites, 18.0 million Hispanics, 12.6 million Blacks and 4.5 million Asians. The percentage distribution for each racial and ethnic group is shown below.

% Distribution	Asian	White Non Hispanic	Black	Hispanic
Above >\$60K	46%	39%	22%	18%
Below <\$60K	54%	61%	78%	82%

As evidenced by these statistics, Whites made up the bulk of the labor force and had the highest number of above average wage earners. However Census Bureau data also shows that the total number of poor Whites earning below mean incomes greatly outnumbered all the minorities combined. Consequently, **the common perception that Whites do better than minorities is only half true.** In fact, mean earnings for Whites are much closer to Blacks and Hispanics than they are to Asians as shown below highlighted in yellow for full-time work. For part-time work, me

### Wage Earner Comparison by Race & Ethnicity

Data Source: U.S. Census Bureau, Current Population Survey, 2017 Annual Social and Economic Supplement data, Jobenomics Analyses

Wage Earners	Worked At Full-Time Jobs (Having worked full-time 35 hours or more per week during a majority of the work weeks)				Worked At Part-Time Jobs (Having worked part-time less than 35 hours per week during a majority of the work weeks)			
	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less	Total	50 Weeks or More	27 to 49 Weeks	26 Weeks or Less
<b>All (000s)</b>	131,327	113,281	10,833	7,213	33,301	17,460	6,624	9,217
Mean Earnings	\$59,817	\$64,005	\$43,800	\$18,093	\$17,244	\$23,785	\$16,340	\$5,501
<b>Asian (000s)</b>	8,315	7,380	527	408	1,696	934	304	458
Mean Earnings	\$72,444	\$76,360	\$54,928	\$24,301	\$18,087	\$25,159	\$14,412	\$6,090
<b>White Non-Hispanic (000s)</b>	83,112	71,914	6,965	4,234	21,857	11,439	4,562	5,856
Mean Earnings	\$65,503	\$69,764	\$49,136	\$20,043	\$18,734	\$26,092	\$17,121	\$5,617
<b>Black Non-Hispanic (000s)</b>	16,174	13,815	1,242	1,117	3,859	1,978	668	1,213
Mean Earnings	\$46,574	\$50,521	\$32,168	\$13,778	\$13,966	\$18,751	\$16,670	\$4,668
<b>Hispanic (000s)</b>	22,065	18,836	1,960	1,270	5,199	2,843	930	1,425
Mean Earnings	\$43,573	\$46,941	\$30,286	\$14,121	\$13,841	\$18,069	\$13,435	\$5,673

#### Race & Ethnic Wage Disparity Compared To Asians

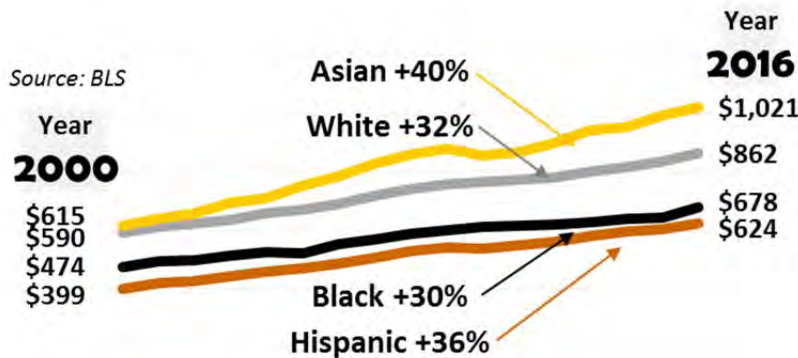
-10%	White Non-Hispanic	4%
-36%	Black Non-Hispanic	-23%
-40%	Hispanic	-23%

#### Race & Ethnic Wage Disparity Compared To White Non-Hispanics

11%	Asian	-3%
-29%	Black Non-Hispanic	-25%
-33%	Hispanic	-26%

According to CPS ASEC data, Asians are the most prosperous of all major racial and ethnic groups in regard to median earnings.

## Weekly Earnings Growth by Race & Ethnicity Year 2000 through 2016



In terms of weekly earnings at full-time jobs in 2016, Whites earned 16% less, Blacks earned 34% less and Hispanics earned 39% less than their Asian counterparts. In terms of earnings growth at full-time jobs from year 2000 through 2016, Asians set the gold standard for all major race and ethnic group wage earners, with a growth rate of 40% compared to Hispanic growth of 36% followed by Whites at 32% and Blacks at 30%. <sup>138</sup>

For more information on income inequality and income opportunity, download Jobenomics' Income Inequality versus Opportunity and Minority-Owned Businesses white papers regarding how to mass produce small businesses and jobs in minority communities at <http://jobenomicsblog.com/income-inequality-versus-income-opportunity/> and <http://jobenomicsblog.com/minority-owned-businesses/>.

<sup>138</sup> BLS, Median weekly earnings of full-time wage and salary workers by selected characteristics, <http://www.bls.gov/cps/cpsaat37.htm>, <http://www.bls.gov/cps/cpsrace2011.pdf> and <https://www.bls.gov/news.release/union2.t02.htm>

## Income and Earnings of New Workforce Entrants.

### New Labor Force Entrants

New Entrants	Generation	Born	Oldest Age In 2017	Population Millions/% In 2017	
	Gen Z, Screenagers	Before - 1996	21	87	27%
	Gen Y, Millennials	1980-1995	37	67	21%
	<i>Population</i>			<b>154</b>	<b>47%</b>
	Gen X, Post Boomers	1966-1979	51	62	19%
	Baby-Boomers	1946-1965	71	79	24%
	Great Generation	1912-1945	105	31	10%
	<i>Total Population</i>			<b>325</b>	<b>100%</b>

154 million Network Technology Revolution (NTR) savvy Generation Z (Screenagers) and Generation Y (Millennials) will transform the American labor force. The NTR is transforming the U.S. economy from a traditional economy based on person-to-person transactions to a digital economy that is increasingly relying on machine-to-machine e-commerce. Labor forces that adapt to this transformation will prosper. Those that don't, will not. As the U.S. labor force transitions from a traditional economy to a digital economy, these NTR-savvy generations will either make or break America as a global economic power.

The NTR is characterized by a "perfect storm" of highly advanced technologies including big data, semantic webs, ubiquitous computing, 5G networks, broadband, mobile computing, machine learning, mobile robotics, multifactor credentialing, emotive language, anonymity networks, Internet of Things, artificial intelligence, and intelligence agents. Screenagers and Millennials are more skilled and more intuitive with these emerging technologies than previous generations. On the other hand, these new workforce entrants are more interested in entertainment than workfare.

As of Q1 2015, Millennials became the largest group in the U.S. labor force with 52.5 million compared to 52.7 million Gen Xers and 44.6 million Baby-Boomers.<sup>139</sup> However, Millennials are generally not willing to trade lifestyle for a career, which makes part-time contingent work and self-employment appealing workplace options.

Rather than trying to force fit Millennials into a corporate structure, companies are adapting to these technology savvy, but high maintenance, workforce entrants. To that end, Fortune, the American business magazine, launched their inaugural list of The 100 Best Workplaces for Millennials in 2015. Over 90,000 employed Millennials from 465 companies were interviewed to determine the best places to work from the Millennials' perspective. Not surprisingly, few if any of America's best-known companies made the Forbes 2017 list. Ultimate Software, SAS Institute, Quicken Loans, Salesforce, Ecompass Home Health and Hospice, Point B, Navy Federal Credit Union, Kimley-Horn, Veterans United Home Loans and Zillow Group are listed as the Top 10 Best Workplaces for Millennials.

<sup>139</sup> Pew Research Center, Millennials surpass Gen Xers as the largest generation in U.S. labor force, 11 May 2015, <http://www.pewresearch.org/fact-tank/2015/05/11/millennials-surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/>

Surprisingly, the top platform companies (Amazon, Facebook, Apple, Microsoft and Google) did not make the Top 100, nor did any of the major manufacturing conglomerates.<sup>140</sup>

Little is known about Generation Z, the children of Generation X, who are just beginning to enter the labor force. While Gen Y and Z share many commonalities, they are vastly different. Gen Z is called Screenagers for a reason. They are truly the first digital natives who are addicted to mobile-on-the-go pad, tablets and smartphones, which are extensions to their persona. An average Screenager spends seven hours a day online. Two-thirds of the Screenagers list gaming as their main hobby and communicate with images, emoticons (emotional icons) and emoji (ideograms or pictographs) that are more suited for the virtual world than the real world. The biggest traditional workplace challenges for Screenagers include very short attention spans, less developed face-to-face interpersonal skills, and preference of unstructured environments. To a great extent, Screenagers are more content living in seclusion at their parent's home than entering the labor force. Most Screenagers abhor the idea of entering the traditional labor force with three-quarters planning to make their online hobbies their job. According to a Northeastern University national survey of Generation Z, aged 16 to 19, Screenagers are self-confident and entrepreneurial, but hold an unrealistic view of the economy, business and employment.<sup>141</sup> Despite being worried about making money or affording college, 64% of Gen Zers believe that big corporations control too much in society and view traditional career paths as abhorrent.

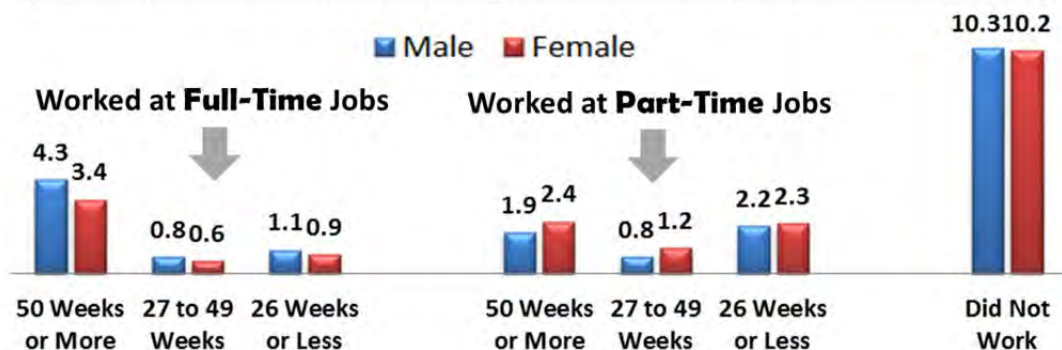
## Earnings of New U.S. Labor Force Entrants in 2016

Total Population of 42.5 Million (21.5M Males and 20.0M Female)

Between the Ages of 15 to 24

Source: U.S. Census Bureau Data, Jobenomics Analysis

Gender 15-24 Years Old		Worked	Full-Time	Part-Time	Did Not Work	Below Mean Income <\$60K
Both Sexes	Earners Millions	22.0	10.1	10.9	20.5	97%
	Mean Earnings	\$18,377	\$27,085	\$9,431	\$0	
Males	Earners Millions	11.2	6.3	4.9	10.3	95%
	Mean Earnings	\$21,188	\$30,058	\$9,829	\$0	
Females	Earners Millions	10.8	4.8	6.0	10.2	98%
	Mean Earnings	\$15,403	\$23,230	\$9,106	\$0	



<sup>140</sup> Fortune, The 100 Best Workplaces for Millennials, 2017, <http://fortune.com/best-workplaces-millennials/>

<sup>141</sup> Northeastern University, Innovation Imperative: Meet Generation Z, survey was conducted 8–23 October 2014, <http://www.northeastern.edu/news/2014/11/innovation-imperative-meet-generation-z/>

97% of new working labor force entrants, ages 15 to 24, currently receive below mean (average) income. While this is to be expected for newcomers, the earning potential for new workforce entrants are not encouraging and are proving to be a disincentive to leaving home, school or adolescence in lieu of a job.

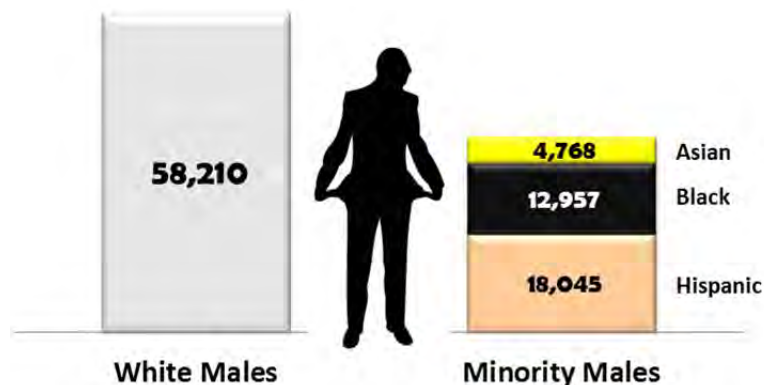
According to CPS ASEC data, there are a total of 42.5 million American workers below the age of 25. 22.0 million worked in 2016, of whom 10.1 million worked at full-time jobs and 10.9 million part-time. 20.5 million did not work, many of whom were in school or college. Of the 22 million workers, both sexes were relatively equally represented.

Of the 22.0 million workers with earnings, a total of 3.4 million people who worked at full-time jobs worked less than 50 weeks per year, which makes them quasi-full-time wage earners. If these 3.4 million quasi-full-time workers were added to 10.9 million part-timers and the 20.5 million that did not work, a total of 81% (34.8 million out of a total population of 42.5 eligible workers) could be considered contingent workers. For all the reasons addressed earlier, low wage, core contingent workers are the most likely group to drop out of the labor force. When one adds ethnology (cultural and relational differences) of younger Millennials and Screenagers to the mix, the United States has a significant labor force challenge to make sure than they are productively engaged in economic pursuits as opposed to seeking alternative forms of livelihoods.

**Income and Earnings of Poor White Males.** In today's politically correct society, it is often indelicate to mention issues regarding white males. However, this sector of U.S. society is increasingly feeling neglected, shunned and disenfranchised. Downturns in male dominated industries, like manufacturing and construction, as well as computer automation of manual and other low-skill jobs are having a major impact on white male employment and wages. Largely due to the political correctness and social justice movement, poor white males increasingly feel disenfranchised with little or no public support and reverse discrimination.

White males are significantly more likely to be poor as any other demographic of minority American males. According to CPS ASEC data, there are 58,210,000 white males above age 15 who earn less than mean income (\$60,000 in 2016) compared to 18,045,000 Hispanic males, 12,957,000 black males and 4,768,000 Asian males.<sup>142</sup> These numbers include all male wage earners plus able-bodied Americans that could work but chose not to work. They do not include males that cannot work due to age, disability or are institutionalized.

## Comparison of American Males Earning Below Average Income



Unless attention is given to this increasingly beleaguered group, they are likely to become more isolated, aggressive, antisocial and even violent. Having 58 million financially distressed and frustrated white males is a potential economic and social powder keg. If a small percentage of 13 million angry black males can disrupt the social and economic order in St. Louis and Baltimore by their disruptive and often violent protests, one can only image the disruption caused by a similar percentage of well-armed and militant white males that outnumber their black counterparts by a factor of almost 4.5 to 1. The United States is already experiencing an upturn in white male militancy and vigilantism and is likely to increase as America transitions from a white-majority to a minority-majority nation over the next several decades.

**In summary,** Jobenomics regards gender income equality as a very important issue that is the subject of much media, political and activist interest and public discussion. What is not discussed publically is the underlying income disparity issue across the entire U.S. labor force where 72% of workers of both sexes are trying to eke out a living with wages below the mean income level. Jobenomics asserts that a better approach to income inequality is to concentrate on solutions that will lift all incomes for

<sup>142</sup> U.S. Census Bureau, Current Population Survey Tables for Personal Income Personal Income in 2016: PINC-05, Males 15 Years and Over, <https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-pinc/pinc-05.2016.html>

those individuals at the base of America's economic pyramid regardless of gender, race or ethnicity. To do this, decision-makers need to have a greater understanding of the economics of the working poor, which is addressed herein, and in other Jobenomics analyses and national grassroots initiatives.

Encouraging people to look for work has less practical meaning in communities with very high unemployment and limited employment opportunities. Consequently, the only true way to reduce unemployment and reduce the numbers of Not-in-Labor-Force personnel is to create net new businesses and jobs tailored to the needs of the 115.2 million workers who make less than the U.S. mean income of \$54,964 and the 94.2 million able-bodied citizens that have departed the workforce.

## Small Business Creation Solution

Small business, the engine of the U.S. economy, is the best way to generate millions of new jobs with livable income and career opportunities. Big business, the anchor tenant of the U.S. economy, is on an opposite track regarding jobs creation and is unlikely to create a significant amount of net new jobs in the foreseeable future. Government can play a significant support role in small business creation, especially if they underwrite the mass-production of startups in the same way they supported the homebuilding and mortgage industries over the last fifty years via a number of government sponsored enterprises like Fannie Mae, Ginnie Mae and Freddie Mac.

The first government-sponsored enterprise (GSE) was created by the U.S. Congress in 1916 (with the creation of the Farm Credit System) to enhance the flow of credit to targeted sectors of the American economy and reduce the risk to investors and other sources of capital. If the U.S. government can underwrite trillions of dollars of loans to the agriculture, construction, automotive and aerospace industries, it surely can do a much better job for small business—the principle employer of American workers.

The U.S. Small Business Administration currently underwrites small business loans, but its budget is too limited, its outreach is too focused on disadvantaged small businesses (which is absolutely necessary but insufficient in a strategic context), and its processes are generally too oriented on individual established firms as opposed to helping communities mass-produce thousands of startups.

**Small Business: the Engine of the U.S. Economy.** Jobs do not create jobs, businesses do, especially small businesses. 30 million American small businesses employ the vast majority of Americans and created the vast majority of all new jobs this decade.

According to the U.S. Small Business Association (SBA),<sup>143</sup>

- There are 29.6 million U.S. small businesses with less than 500 employees compared to 18,600 big businesses with over 500 employees. Of the 29.6 million small businesses, 5.8 million had paid employees and 23.8 million had no employees, termed “nonemployers”.
- The BLS definition of a nonemployer business is “one that has no paid employees, has annual business receipts of \$1,000 or more (\$1 or more in the construction industries), and is subject to federal income taxes”. Nonemployer businesses include:
  - Individual proprietorships, sole proprietorships, an unincorporated business owned by individual and self-employed persons.
  - Partnerships or unincorporated business owned by two or more persons having a shared financial interest in the business.
  - Corporations that are legally incorporated businesses under state laws.<sup>144</sup>

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<sup>143</sup> U.S. Small Business Association, Office of Advocacy, Frequently Asked Questions, <https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2017-WEB.pdf>

<sup>144</sup> BLS, Nonemployer Definitions, <https://www.census.gov/epcd/nonemployer/view/define.html>

- As explained by the Census Bureau, “Nonemployer statistics data originate chiefly from administrative records of the Internal Revenue Service (IRS). Data are primarily comprised of sole proprietorship businesses filing IRS Form 1040, Schedule C, although a small percentage of the data is derived from filers of partnership and corporation tax returns that report no paid employees.” Nonemployer businesses may operate from a home address or a separate business location.<sup>145</sup>

The 29.6 million U.S. small businesses employ the majority of all Americans and created the majority of all new U.S. jobs this decade. Today, as of 1 October 2017:

- Small businesses employ 77.2% in the U.S. private sector.
- Small businesses (less than 500 employees) employ 3.4-times more citizens than large businesses (500+ employees), or 96,372,361 versus 28,542,121 jobs respectively.
- Micro businesses (less than 20 employees) employ 1.6-times more than very large institutions (1,000+ employees), or 31,287,554 versus 20,015,946 jobs respectively.<sup>146</sup>

Since the beginning of this decade to today (1 January 2010 to 1 October 2017):

- Small businesses created 73.1% of all new jobs in the United States.
- Small businesses (less than 500 employees) created 2.7-times more jobs than large businesses (500+ employees), or 12,706,977 versus 4,670,100 new jobs respectively.
- Micro businesses (less than 20 employees) created 0.84-times as many jobs as very large institutions (over 1,000 employees), or 2,957,237 versus 3,506,217 new jobs respectively.<sup>147</sup>

The above data supports the fact that small businesses produce far more jobs than big business.

Tax Reform is Trump’s signature initiative that underpins his bold vision of sustained 4% GDP growth and 25 million new jobs over the next ten years. Jobenomics could not agree more with this vision. The Republican-controlled U.S. House of Representatives released their version of the “Tax Cuts and Jobs Act” that chops the corporate tax rate from 35% to 20% on incorporated small business and reduces the tax rate from 39.6% to 25% for unincorporated pass-through businesses (sole proprietorships, partnerships, and S-Corporations that pay taxes based the owner’s personal income tax returns).

These tax cuts on small business should have a dramatic effect on job creation. Unlike large corporations that spend as much money on making money (stock buybacks, mergers and acquisition, secondary market plays, etc.) as they do on labor, small businesses tend to hire and expand their business, which creates more jobs. **If each of these 29.6 million small businesses created or hired only one (1) net new employee over the next several years, Trump’s 25 million new jobs goal could be realized in a much shorter timeframe than currently envisioned.**

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<sup>145</sup> U.S. Census Bureau, Purpose And Use Of Nonemployer Statistics, <https://www.census.gov/epcd/nonemployer/1997/introgen.htm>

<sup>146</sup> ADP Research Institute, Historical Data, <http://www.adpemploymentreport.com>

<sup>147</sup> ADP Research Institute, Historical Data, <http://www.adpemploymentreport.com>

While Jobenomics asserts that tax cuts for small incorporated and unincorporated businesses will greatly accelerate America's economic and job creation performance, Jobenomics is concerned by exploitation by "large" and "wealthy" pass-through businesses. According to Brookings Institution, a leading U.S. nonprofit public-policy organization, while 99% of U.S. businesses are small and 95% of all U.S. businesses are pass-throughs, over 80% of all sales and profits are accrued by large pass-through businesses that represent only 1% of all firms. "Most hedge funds, private equity funds, law, consulting, and accounting firms are partnerships; these businesses can be large, global enterprises."<sup>148</sup> Unlike large corporations that spend as much money on making money as on labor, Wall Street pass-throughs make breathtaking amounts of money on money alone. Consequently, any pass-through tax cuts should focus on birthing, accelerating and expanding small mom-and-pop businesses as opposed to hedge funds (that pay their managers an average of \$2.4 million dollars annually<sup>149</sup>) and high wage earners who often masquerade as small businesses in order to reduce taxes.

Small businesses are important to the unemployed and part-time workers who face significant workforce and financial challenges. Small businesses tend to hire these demographics at a far greater rate than large businesses that can be choosy about whom they hire. It is a well-established fact that large corporations shy away from hiring formerly unemployed workers (regardless of reason) and give preference to hiring employed workers from other organizations. Large businesses historically have been the mainstay for U.S. jobs. However, this fact is changing due to global competition, outsourcing, automation, economic uncertainty, and greater use of part-time and contingency workers.

Jobenomics is a strong advocate of big business and believes that a robust industrial base is paramount to American prosperity and security. Jobenomics also freely shares its warehouse of information and trend data with large institutions to help shape their business and labor strategies. On the other hand, Jobenomics is a strong advocate and aggressive promoter of small, self-employed and startup businesses that, overwhelmingly, are the primary sense of U.S. employment.

Contrary to popular opinion, 50% of all small business startups last five years and 30% remain in business over ten years. In addition, small business growth has outperformed large businesses during the recovery from the Great Recession<sup>150</sup>.

A strong small business sector is of paramount importance in supporting big business as well as government. The more people small businesses can employ means less personnel issues that big business and government have to handle—thereby increasing focus on more strategic matters like economic and national security.

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<sup>148</sup> Brookings, 9 facts about pass-through businesses, <https://www.brookings.edu/research/9-facts-about-pass-through-businesses/>

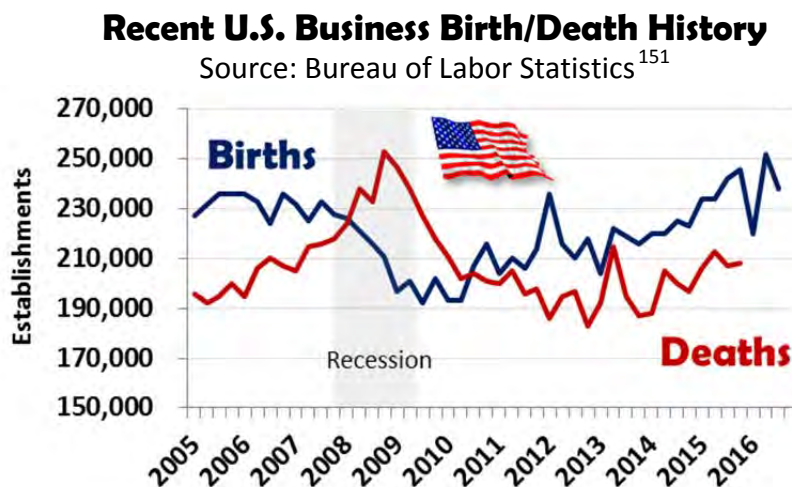
<sup>149</sup> CNBC, Hedge fund manager pay rises to \$2.4 million, 6 November 2014, <https://www.cnbc.com/2014/11/06/hedge-fund-manager-pay-rises-to-24-million.html>

<sup>150</sup> For more detail see Jobenomics U.S. Employment Analysis: Q1 2017

Federal, state and local governments can also create jobs, but the likelihood of increased government employment is limited considering the current political and fiscal environment. Even with profligate government spending after the Great Recession, net government jobs are down by 145,000 employees. Spending on government-sponsored infrastructure projects is a popular notion, but infrastructure spending is limited by budget constraints and the jobs they produce (mainly construction) are usually temporary in nature.

Notwithstanding, government can play a large role in business creation by the policies and incentives they promote and support. For example, America's electrical grid requires approximately \$2 trillion to modernize and protect. Rather than restoring a 50-year old electrical infrastructure, government could empower businesses to create a new distributed and dispersed point-of-use power generation systems that would create millions of local, middle-class jobs via emerging renewable (such as solar, wind, geothermal and high-head hydro) and cleaner fossil fuel (such as natural gas) technologies.

**Jobenomics Community-Based Business Generator Concept.** The solution to growing America's economy involves putting our small business engine into over-drive. Energizing existing small businesses and creating new small and self-employed businesses could create 20 million of new jobs within a decade. To prove the validity of this assertion, Jobenomics is working with a number of cities to implement community based business generators to mass produce startup businesses. The objective of a Jobenomics Community-Based Business Generator is to increase "birth rates" of startup businesses, extend the "life span" of fledgling businesses and increase employees per business.



As shown, the U.S. establishment business birth/death history since 2005 has been relatively consistent ranging from lows around 187,000 to highs of 252,000 births/deaths per quarter. The BLS defines establishments as a physical location of a certain economic activity—for example, a factory, mine, store or office.

- In terms of births/deaths per quarter, over the last decade, births exceeded deaths in 36 quarters (out of a total of 45 quarters). The 9 quarters where deaths exceeded establishment births occurred during and shortly after the Great Recession. The average number of new

<sup>151</sup> Bureau of Labor Statistics, Economic News Release, last modified 27 July 2016, retrieved, 20 October 2016, Table 8. Private sector establishment births and deaths-seasonally adjusted, <http://www.bls.gov/news.release/cewbd.t08.htm>

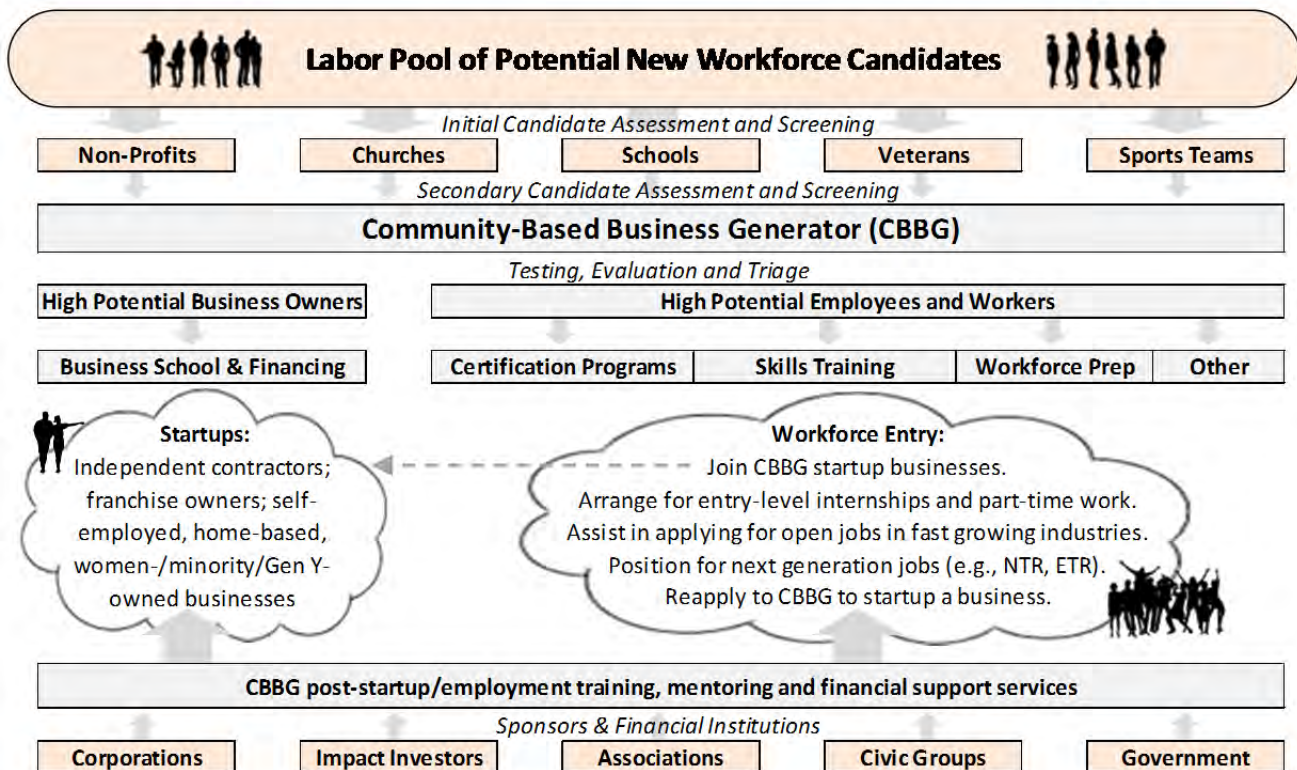
business establishments per year was 885,667 whereas the average number of establishment closings per year was 829,156, for a net gain of 56,511 new businesses per year.

- In terms of employment, the average number of new hires per year was 3,367,250 whereas the average number of layoffs per year was 3,019,289, for a net gain of 347,961 new jobs per year. It is important to note that each new company employed approximately 6.2 workers, which means that micro-businesses or micro-organizations in larger businesses make up the vast majority of new businesses.

The way that government and big business can plan, manage and support small business and job creation is via community-based business incubators, business accelerators and business generators.

Business incubators tend to focus high-tech, silver bullet innovations that have extraordinary growth and employment potential. Business accelerators focus on expanding existing businesses in order to make them larger and more profitable. The Jobenomics business generator concept involves mass-producing small and self-employed business with emphasis on lower-tech but plentiful service-providing businesses at the base of America's economic pyramid. Many cities have business incubators, usually located at or around universities or technology parks, and business accelerators that are associated with mezzanine financing institutions. Jobenomics is working with cities and states to create business generators to mass-produce startup small and self-employed businesses.

## Jobenomics Community-Based Business Generator Concept



A Jobenomics Community-Based Business Generator is designed to mass produce startup businesses with emphasis on minority-owned, women-owned, Generation Y/Z (new workforce entrants)-owned and financially distressed/handicapped startups of all races and ethnicities.

Jobenomics Community-Based Business Generators mass-produce startup businesses by: (1) working with community leaders to identify high-potential business owners and employees, (2) executing a due diligence process to identify potential high quality business leaders and employees, (3) training and certifying these leaders and employees in targeted occupations, (4) creating highly repeatable and highly scalable “turn-key” small and self-employed businesses, (5) establishing sources of startup funding, recurring funding and contracts to provide a consistent source of revenue for new businesses after incorporation, and (6) providing mentoring and back-office support services to extend the life span and profitability of businesses created by the Jobenomics Community-Based Business Generators.

## Jobenomics Community-Based Business Generator Process



## A Unique Community-Based Business And Workforce Development Process

The process starts by using community leaders to identify high potential job seekers. Churches, non-profit institutions, schools, sports teams and veterans groups are a great source for identifying talent, desire and fortitude. These organizations provide the first phase of the triage process by screening and assessing high performance people who are known to them. The second stage is accomplished during onboarding that involves Jobenomics screening and assessing. The third stage uses aptitude and personality tests to determine potential career paths.

Once completed, candidates will be separated into a business leader group or a high potential employee group for training. The leader group will undergo management and startup business training. The employee group will undergo skills training based on the role that they will assume in the startup business (operational, technical, mechanical, financial, marketing, administrative, etc.). After the training is completed and certifications awarded, the team will commence startup operations under the guidance and assistance of the Jobenomics Community-Based Business



Generator team. Jobenomics contends that Community-Based Business Generators could vastly improve the rate of startups and expanding businesses, and reduce the rate of contracting and closing businesses.

Starting with a notional pool of thousands of candidates, Jobenomics will work with local civic organizations (churches, non-profits, sports teams, etc.) to identify and nominate the top 30% to 50%, who they know, for the Jobenomics Community-Based Business Generator program. This is the first stage of the due diligence process to separate the proverbial wheat from the chaff.

These nominees will then be subjected to standard aptitude and attitude tests in order to identify and assist those that (1) should be sent to other educational (GED and postsecondary) or training (vocational) centers for career development, (2) are qualified and suitable for immediate employment with existing companies, and (3) desire and have an aptitude for starting a small or self-employed business. Jobenomics Community-Based Business Generator will help all people who enter the program to find meaningful employment and career paths.

Jobenomics envisions that 25% of the nominees would seek a traditional education and training path, 25% would be hired directly by existing business who are looking for quality workers, and 50% would seek a more independent and self-sufficient route offered by a small business startup or self-employment.

Of the 50% that choose the Jobenomics Community-Based Business Generator training and certification process, Jobenomics anticipates that approximately 25% will eventually implement a small business startup or incorporate as a self-employed business. The 75% that undergoes but does not complete the Jobenomics Community-Based Business Generator process will be certified (with empirical data by professional testing and evaluation) as high-quality candidates for immediate employment or traditional education/vocational training.

Many of the initial candidates are likely to prefer working for existing companies rather than going through the Jobenomics process. Anticipating this, Jobenomics will implement a “pipeline” to connect these individuals who have undergone some level of due diligence to companies that are hiring. Consequently, the Jobenomics management team includes a nationally recognized leader who developed such a pipeline system that has matched 250,000 veterans with companies. This system is ideally suited for matching Jobenomics candidates to local employment vacancies.

The overall objective is to mass-produce small and self-employed businesses, which makes the Jobenomics Community-Based Business Generator process unique as a traditional business and workforce development center. Traditional workforce development processes focus on preparing potential workers for employment by existing businesses—usually large corporations. For marginalized individuals at the base of the American economic pyramid (especially those in depressed urban and rural areas) the odds of employment at existing businesses are slim as evidenced by the long lines at traditional job fairs versus the low percentage of people hired.

The Jobenomics process focuses on preparing workers for starting a business, whether they actually start one or use the experience to be more competitive to get a job. In today’s world, gainful



employment is difficult and oriented to those that are currently employed, credentialed or high-skilled. Conversely, a common complaint that Jobenomics often hears from companies is that they have a very hard time (1) finding good people who want to work, (2) who have the right attitudes and aptitude for work, and (3) who have workforce credentials, experience or related skills.

Every nominee that enters the Jobenomics process will setup a self-employed business, which can be incorporated in a matter of days, and undergo elementary business training. The reason for setting up a small business is to make them more competitive in today's job market. Many employers prefer to "try before they buy". An incorporated self-employed individual can position themselves for subcontract or contingent work (1099) as a prelude to standard full-time work (W2). Even if a self-employed individual never receives an income as a self-employed business, that individual can present themselves with credentials (Employer ID Number, website, business card and skills resume) that align with the business community. In addition, Jobenomics will provide additional credentials regarding the individual's workforce aptitude, skills and suitability tailored to the specific hiring opportunity. Jobenomics credentialing, along with letters of recommendation from the nominees' sponsoring organization, will greatly distinguish the individual from the masses of unemployed or new or returning workforce entrants.

Today, the United States does not have standardized national, state or local processes to create or mass-produce startup businesses. The U.S. startup process is largely ad hoc. By instituting a community-based (all jobs are local) standardized, repeatable and scalable process to mass-produce startup businesses, millions of new establishments could be created across America. By being part of a small business team, team members will be motivated to grow the business in order to make it more profitable, which facilitates upward mobility, higher wages, better benefits, potential equity positions, and, perhaps most importantly, a sense of camaraderie and purpose.

Job creation is the number one issue facing the United States in regard to economic growth, sustainment and prosperity. Jobs do not create jobs, businesses do, especially small businesses that currently employ 80% of all Americans and created 80% of all new jobs since the end of the Great Recession.

Unfortunately, America is focused on big business and government employment solutions that have not been very effective growing the U.S. labor force. In fact, the U.S. labor force is in a state of decline as evidenced by the eroding middle-class and the transformation from standard full-time to part-time and contingency workers. With the next fifteen years, Jobenomics forecasts that the contingent workforce will replace traditional full-time workforce as the dominant force of labor in the United States—a trend that is largely unknown to policy-makers and the American public.

Jobenomics asserts that the four demographics with the highest need and growth potential include women, minorities, new workforce entrants, and the large cadre of financially distressed citizens who want to work or start a business. These demographics are ideally suited for the accommodating the growing contingent workforce and attracting new labor force entrants that often do not share the same employment dream of older generations.

Jobenomics believes that new small, emerging and self-employed businesses could create 20 million new jobs within a decade, if properly incentivized and supported. Notwithstanding filling the 5+



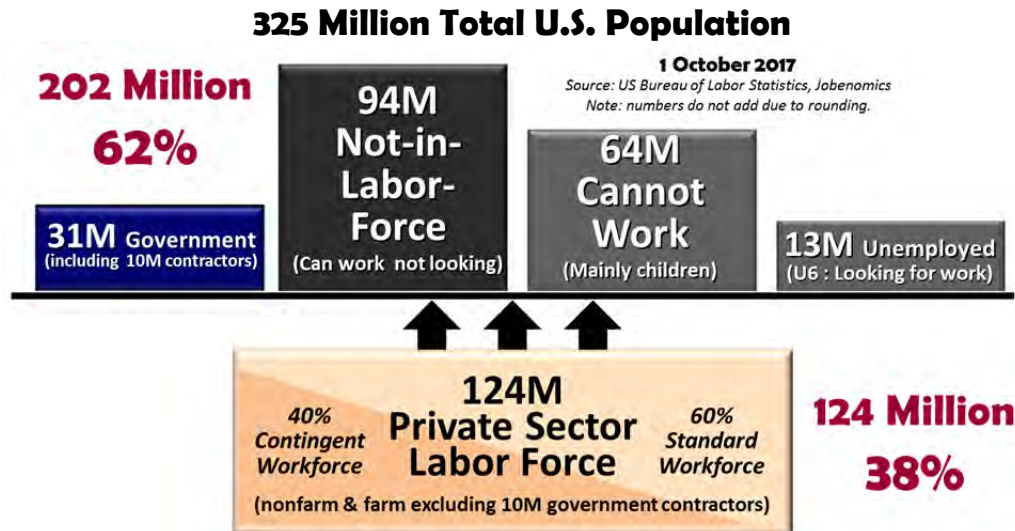
million open U.S. jobs positions, the emerging Energy Technology Revolution (ETR) and the Network Technology Revolution (NTR) could create 20 million net new American jobs within a decade given proper leadership and support.

Using the Jobenomics Community-Based Business Generator process of mass-producing highly repeatable and scalable “turn-key” small and self-employed businesses, America writ large could create tens of millions of jobs that would transform the U.S. labor force, middle-class and economy as well as providing hope and jobs for marginalized urban and rural American communities.

Jobenomics is now working directly with community leaders to develop business and job creation initiatives to mass-produce small businesses and jobs. Emphasis is placed on demographics with the greatest need and potential—women, minorities and youth. Jobenomics New York City, Jobenomics Delaware and Jobenomics Baltimore City initiatives are underway with other state and city efforts in progress including Jobenomics North Carolina, Jobenomics Southern Maryland and Jobenomics Harlem. Each of these initiatives incorporates Jobenomics Community-Based Business Generators as the way to mass-produce small and self-employed business as well as maximizing the number of jobs within targeted, often marginalized, communities.

## Conclusion

Out of a population of 326 million citizens, only 38% of all Americans are financially supporting the rest of the country.



The U.S. currently has 124 million private sector workers that support 31 million government workers and contractors, 13 million total unemployed (U6 rate), 94 million able-bodied people who can work but chose not to work, and 64 million who cannot work.

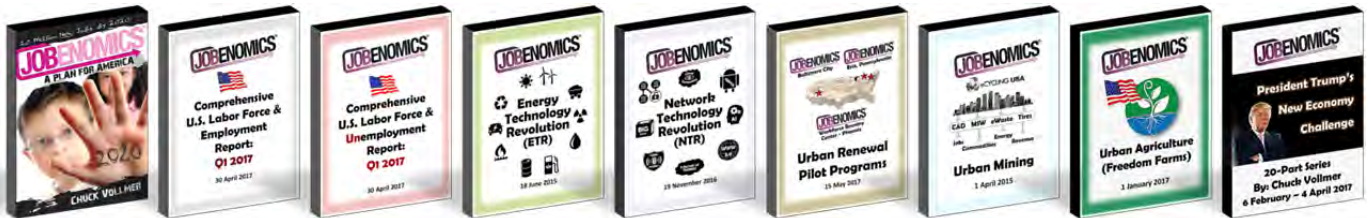
The U.S. economy cannot be sustained by 38% supporting an overhead of 62%. More people must be productively engaged in the labor force for the U.S. economy to flourish. A vibrant labor force depends on a well-trained, disciplined, and engaged labor force. The antidote to unemployment and voluntarily workforce departures is employment and meaningful career opportunities.

Jobenomics asserts that the greatest labor force challenge involves business and job creation. New small, emerging and self-employed businesses could create 20 million new jobs within a decade, if properly incentivized and supported. Three prominent areas to focus are: filling 6 million unfilled U.S. job openings, and exploiting the 10s of millions of new jobs generated by Energy Technology and Network Technology Revolutions. If Jobenomics can help create thousands of highly-scalable small businesses, America writ-large can facilitate the creation of millions of small businesses that would transform our economy.

If American policy-makers and decision-leaders are serious about revitalizing the eroding middle-class, they must address the growing voluntary workforce departures, contingent workforce and below mean income issues. As discussed herein, Jobenomics believes that the place to start is with demographics with the greatest need and potential (i.e., women, minorities, new workforce entrants and the growing cadre of poor white males). Jobenomics suggests that policy-makers, in both parties, should make solutions to these labor force challenges their top priority.

## About Jobenomics

**Jobenomics** (*Jobs + economics*) deals with the process of creating and mass-producing small businesses and jobs. Jobenomics National Grassroots Movement's goal is to facilitate creation of 20 million net new U.S. jobs within a decade. Over 20 million people have been reached by Jobenomics via its media, website and lectures, and has garnished wide-spread support for its economic development, workforce development and business development efforts. Jobenomics website and blog receives 30,000 page views each month with over half the viewers regularly spending over an hour of online research on the Jobenomics website.



Jobenomics regularly updates its nine books and e-books (shown above) to keep its members current on the latest national and international economic and labor force issues, trends and solutions. Jobenomics research is perhaps the most complete library of employment and unemployment challenges facing the nation and world. Jobenomics also provides special reports on national and international events that impact the economy. For example, as shown, these reports range from the U.S. workforce development challenge to international competition in the emerging digital economy to helping solve delicate labor force issues like discontent and extremism.



Jobenomics provides advice and timely data to policy and decision-makers worldwide. Over the last few years, Jobenomics met with over a thousand government, business and community leaders to incorporate the best of their ideas and requirements into Jobenomics initiatives and programs. Today, a dozen communities have started Jobenomics initiatives led by local community leaders. Another dozen are in the pipeline. These initiatives focus on citizens at the base of America's socioeconomic pyramid with emphasis on women, minorities, youth, veterans and other hopefuls who want to work or start a business. While Jobenomics is designed as an American business and job creation movement, there is significant interest from Asian, Middle East and African nations to start similar movements.

**Key Focus Areas.** While Jobenomics supports big business and government job creation efforts, its principal focus is on highly-scalable small and self-employed businesses that employ 80% of all Americans and produced 80% of all new jobs this decade. Jobenomics is working with numerous national organizations to implement Jobenomics Community-Based Business Generators to mass-produce startup businesses and provide skills-based training and certification programs to create "jobs within months and careers within a year." Via a strategic partnership with The Hope Collection



([www.hopecollection.org](http://www.hopecollection.org)), Jobenomics can offer over 9,000 online technical training and certification programs. Jobenomics partnership with EmeraldPlanet ([www.EmeraldPlanet.org](http://www.EmeraldPlanet.org)) includes relationships with the world's 1,000 best emerging green business practices and Emerald Planet Television Show aired weekly worldwide. Jobenomics is also partnered with ACTS Freedom Farms ([www.actsffa.com](http://www.actsffa.com)) produce 25,000 veteran-owned micro-farms, employing over 100,000 new U.S. jobs in the next five years. These micro-farms feature state-of-the-art hydroponic and vertical agricultural technology in a controlled environment to grow high-quality organic agricultural products in both urban and rural areas.

**Contact Information:** Charles D. (Chuck) Vollmer, Founder, Email: [cvollmer@Jobenomics.com](mailto:cvollmer@Jobenomics.com), Website: <http://Jobenomics.com>, Telephone: 703-319-2090, Office, P.O. Box 2182, Vienna, Virginia USA 22183.