

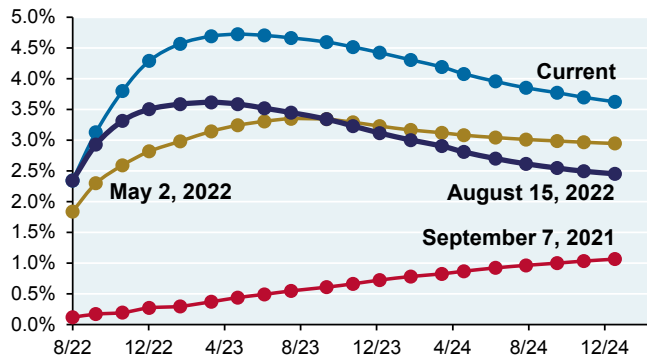


Arrested Development: the tightest labor markets in decades are pressuring the Fed; can “second chance” policies for those with criminal histories expand the labor force? Also: the Citrix canary and a COVID update

As I wrote in our Labor Day piece, we expected the S&P 500 to re-test June lows and now we’re there. Equity markets have been slow to digest the path of future policy rates shown in the first chart below. Additional headwinds come from Europe’s energy mess, and from China’s real estate collapse (bad debt ratio of 30% and rising) and its zero COVID tolerance policy. More broadly, as shown in the second chart, **we’re emerging from a decade of abnormal pricing for risky assets relative to cash, which argues for lower valuations on just about everything as the gap closes and normalizes.** As we wrote on Labor Day and earlier in the year, we do not envision a deep US recession based on the strength of consumer balance sheets, but we think better entry points on equities still lay ahead.

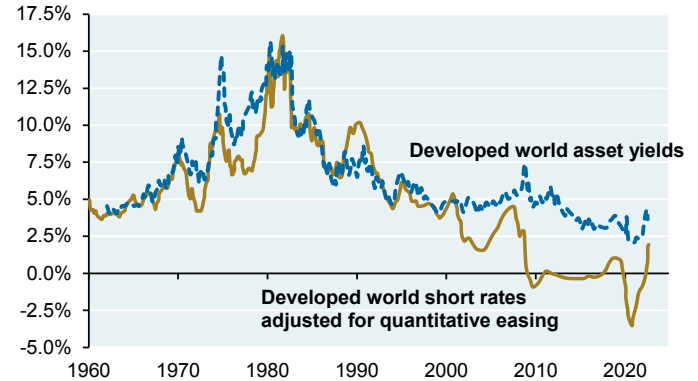
Consider the Citrix deal whose senior notes priced at 10% vs initial underwriting levels of 6.5%; underwriters still reportedly hold the all of the second lien Citrix notes which would require much larger discounts to place with investors. Pending large buyout financing deals include Twitter, Nielsen, Tegna and Tenneco, all of which are lower rated by Moody’s than Citrix. Citrix may be a canary in the coal mine given the limited selloff so far in high yield spreads and leveraged loan prices, which at 6% and \$93 are still below recessionary levels.

Fed funds target rate: current vs prior market expectations
Percent, shown through December 2024



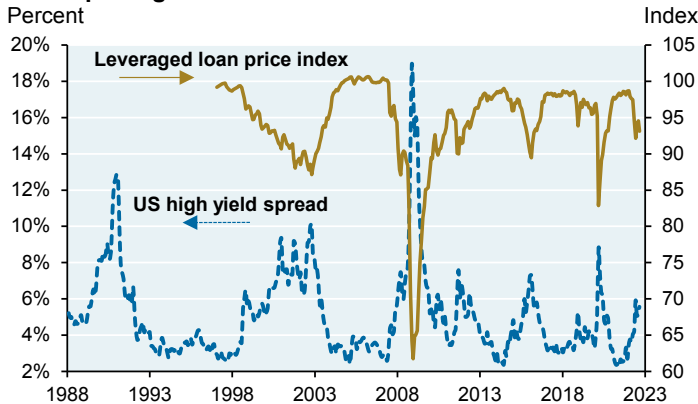
Source: JPMAM. September 23, 2022. Note: data comes from Overnight Indexed Swaps market.

Gap between asset yields and short rates is finally closing
Percent



Source: Bridgewater. August 25, 2022.

Credit pricing



Source: Bloomberg, JPMAM. September 25, 2022.

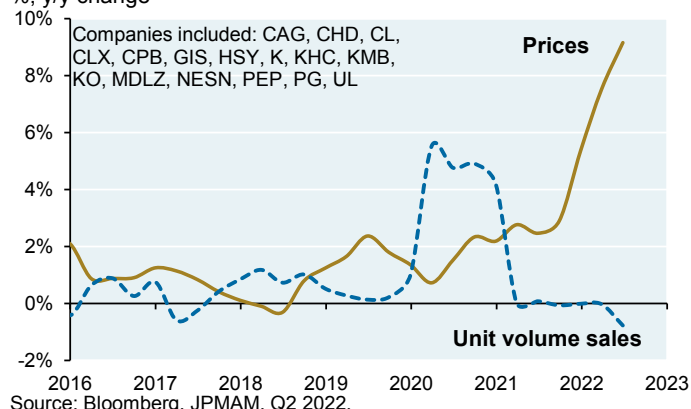


Early warning signs on earnings appear below. Consider US consumer staples: while Q2 revenues rose, all of the increase resulted from price hikes while unit volumes were down. As the economy weakens with rising Fed Funds rates, it will become harder to pass through rising costs. Other early warning signs on earnings include leading indicators with which they're correlated (see chart below), and that's before taking into account a projected ~2% EPS decline from the new 15% minimum book tax mostly affecting tech and healthcare companies, and the 1% buyback tax. Last point: as Gavekal Research highlighted in a recent note, the ratio of S&P to NIPA (economy-wide) profits has risen to 1.2x again, a level which historically has been a reliable indicator of pending profits recession.

To be clear, institutional positioning and individual investor sentiment are quite bearish and some valuations already price in bad news: China banks at less than 0.5x book value, Europe 10.7x forward P/E converging on 2012 debt crisis lows and Metaverse-Fintech-Hydrogen-SPAC stocks down 50%-80% from their peaks. But all eyes are on the Fed and its vanishing hopes of a soft landing, which we discuss next.

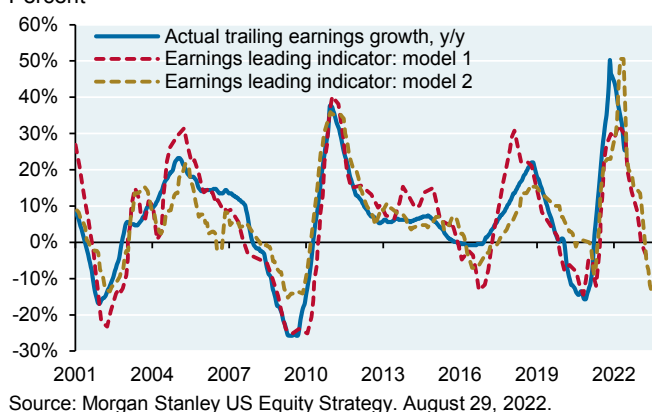
Operating metrics for consumer staples companies

% y/y change



Leading earnings indicators point to downside ahead

Percent



A brief COVID update: bivalent vaccines, inhalable vaccines and preventable deaths

- While vaccine protection against infection and transmission have dropped sharply with efficacy below 50%, studies focused on people aged 60+ still show large declines in mortality and hospitalization risk from a 4th shot compared to two or three shots
- Unvaccinated people (most of whom have already been infected) have 14x the risk of dying than vaccinated people, suggesting that infection-induced immunity is much weaker than immunity from vaccines
- New bivalent mRNA vaccines are now available and have been engineered to work against the original strain and against Omicron BA4/5. There is not a lot of efficacy data yet; the decision to move forward was based on the results of a BA1 vaccine, a Beta variant vaccine and lab data from mice
- A new report from the NEJM indicates that mucosal (nasal) antibodies are what may be needed to more effectively block infection and transmission, since that is where airborne pathogens are first introduced into the body
- China approved its first inhalable COVID vaccine manufactured by CanSino, which uses the same adenovirus vector approach that it uses in its injectable vaccine. Early trials showed better immune responses than a regimen of three shots, and CanSino claims that its inhalable vaccine also needs much less viral material to be effective. India's Bharat Biotech has also approved its own inhalable adenovirus vaccine which it developed in conjunction with researchers at the Washington University (St Louis) School of Medicine
- Inhaled vaccines are best used in tandem within injected vaccines rather than replacing them, since injected vaccines produce antibodies in the bloodstream and internal organs which are needed if nasal defenses fail
- As per Brown's School of Public Health and Microsoft AI: from January 2021 to April 2022, the US experienced 320,000 deaths that could have been prevented if such individuals had been vaccinated. Excess death rates are still 10% above expected levels, and in 2021, the US experienced the largest decline in life expectancy in 100 years



Why would the Fed tighten into a weakening global economy? The risk of wage-price spirals apparently worries them even more. Can the US labor supply increase without a deep recession?

The Fed is under the gun: the monthly job fill rate as a % of openings has collapsed, and the ratio of employment plus job openings to the size of the labor force is close to its highest level on record. Other similar indicators:

- People switching jobs are earning a very high premium relative to those who stay put
- A Brookings paper cites labor market tightness as being responsible for 80% of the increase in consumer price inflation since 2020¹ [note: in our view, explosive monetary and fiscal stimulus, supply chain delays due to COVID and energy policy were the primary drivers of the initial rise in inflation]
- A new NBER paper estimates NAIRU (the non-inflationary rate of unemployment) at 6%, one of the highest rates since the 1980's²
- 2.5% of the US workforce is estimated to have been lost to excess retirement during COVID, other COVID related issues (long COVID, terminations, child care shortages) and the decline in immigration³

It's hard to increase the labor supply. Birth rates are stagnant, immigration is just beginning to pick up (see Appendix) and it's difficult to lure retired people back into the workforce. Unless the labor supply increases, wage-price spirals could become more commonplace; this is a risk that the Fed is clearly focused on. As we discussed last time, labor force participation is already back to normal for 25-54 year olds; it remains depressed for those over 54. **One potential pool of underutilized labor:** the population of people with a criminal arrest record, many of whom were never convicted for serious crimes and/or incarcerated. Let's take a closer look.

Lowest job fill rate since the year 2000

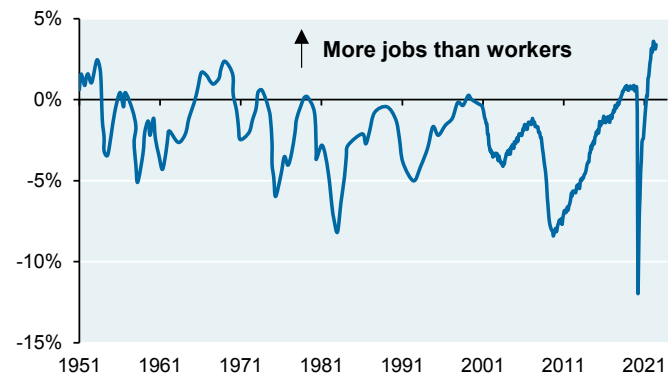
Jobs filled as a % of outstanding job openings



Source: BLS, JPMAM. July 2022.

Largest worker shortage in the post war era

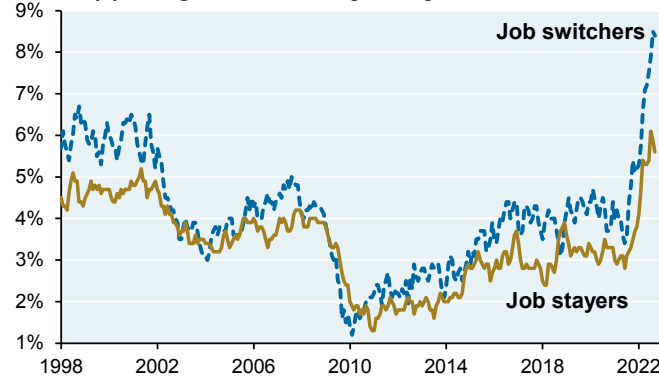
Job openings plus employment as % of labor force



Source: BLS, JPMAM. July 2022.

Atlanta Fed Wage Tracker: job switchers vs stayers

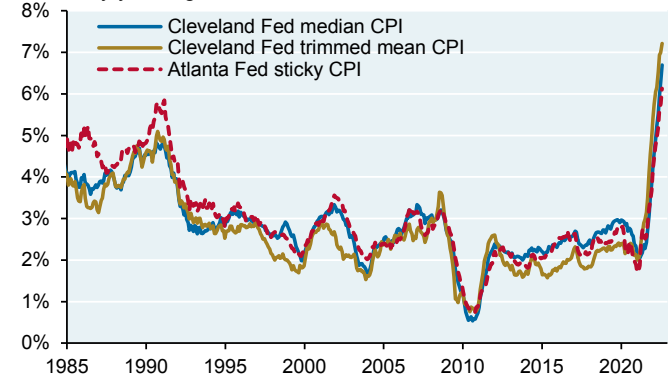
Percent, y/y change, 3 month rolling average



Source: Bloomberg, JPMAM. August 2022.

US consumer price inflation measures

Percent, y/y change



Source: Bloomberg, JPMAM. August 2022.

¹ "Understanding US Inflation During the COVID Era", Ball and Mishra, Brookings, September 7, 2022

² "Estimating Natural Rates of Unemployment", Bok and Petrosky-Nadeau (FRBSF), May 31, 2022

³ "The Big Stuff: Earnings, Inflation and the Labor Market", Empirical Research, September 14, 2022



Could “Second Chance” legislation help reduce the US labor supply shortage? It’s worth a closer look

Second chance legislation refers to policies designed to ease the path to employment for people with a criminal record, some of whom have been incarcerated although many people with an arrest or conviction record haven’t been. Given the recent increase in violent crime rates, it might seem like an odd time for this; but if such policies can reduce recidivism, a wide range of social, economic and workforce issues could improve.

Main components of second chance legislation:

- “Clean Slate” procedures under which criminal records are automatically expunged if individuals remain arrest-free for a specified period. Eight states have passed such legislation: PA, UT, MI, CT, DE, OK, CO, VA
- “Ban the Box” legislation which would require most private employers to postpone asking about an applicant’s criminal record until after the applicant has had an opportunity to interview, or until after a conditional offer of employment has been made. More than 100 cities/counties and 19 states have already enacted ban the box policies, as has the Federal government⁴
- The FDIC has recently narrowed the circumstances under which written consent is required in order for a bank to hire individuals with minor criminal offenses, but more can be done by Congress
- Prevent unpaid court debts (fines, fees, costs and restitution) from being a barrier to record clearing. In almost every jurisdiction, outstanding court debt is a barrier to record clearing, either rendering a person ineligible for record relief or making it difficult for them to qualify for it⁵
- Standardize record clearing timetables across states. These timetables refer to the time during which individuals must be crime-free in order to qualify for record clearing. Dispersion across states is very wide; for example, some states allow clearing of felony convictions after 1-3 years, others after 5, 7 or 10 years, and 16 states do not allow felony record clearing at all⁶

To understand why this legislation is worth thinking about, consider the following:

- **One third of the adult working age population has a “criminal record”** that can impair their ability to get a job, even though most have not committed a “serious crime”, and even after the rest fulfill their justice system obligations. Criminal records are retained by the Department of Justice in its Interstate Identification Index even though many people who get arrested are never charged or convicted⁷. Around one third of employers consider an arrest without conviction as “somewhat influential” in their hiring decisions
- In another study, **64% of all unemployed males between the ages of 30 and 38 had been arrested at least once**, with negative implications for marriage, education, net worth, employment and earnings⁸
- With respect to drug arrests, 70%-80% have been for possession rather than manufacture (see Appendix)
- The current system of record expungement is costly, complex and time-consuming; as a result, few pursue it even though having an arrest record reduces the chances of being contacted by an employer by 50%-65%⁹. Example: among those eligible for expungement in Michigan, just 6.5% obtained it within five years of eligibility due to a limited understanding of expungement laws and procedures, application fees and possible loss of wages for time taken off work¹⁰
- The US has the highest rate of incarceration in the world, just above Rwanda, Turkmenistan and El Salvador. Formerly incarcerated people are routinely and systematically shut out of the work force

⁴ As per the Federal Fair Chance Act of 2019, the Federal government and its paid contractors may not require that job applicants disclose criminal history information prior to extending a conditional offer of employment

⁵ “The high cost of a fresh start”, National Consumer Law Center, February 2022

⁶ “Waiting for relief: a national survey of waiting periods for record clearing”, CCRC, February 2022

⁷ Brennan Center for Justice, Matthew Friedman, November 2015

⁸ “Barred from employment: More than half of unemployed men in their 30s had a criminal history of arrest”, Bushway et al, Science Advances, 2022

⁹ Colorado Law & Policy Center, “Ban the box legislation boosts employment and reduces recidivism”, Nov 2015

¹⁰ “Expungement of Criminal Convictions: An Empirical Study”, Prescott and Starr, Univ. of Michigan, 2020



- In one study¹¹, 33% of parolees found no employment over four years post-release, and at any given time no more than 40% was employed (i.e., a roughly 60% consistent unemployment rate). Those who were employed had an average of 3.4 jobs throughout the four-year study and earned 50%-80% of median wages, suggesting they were landing jobs that didn't offer security or mobility
- Someone imprisoned as a young adult suffers a lifetime earnings loss of \$480k, regardless of the offense¹²
- All of the above contribute to the US having one of the lowest male labor force participation rates in the OECD (see Appendix)

Will such second chance programs “work”? In other words, when Ban the Box and record clearing legislation exists, do such policies sustainably increase the work force? They just might. Studies differ, of course; here are some noteworthy analyses.

- **Employment has been estimated to be the most significant factor in decreasing recidivism¹³**
 - In Chicago, formerly incarcerated people who had found employment for one year had a recidivism rate of only 16% over three years compared to a 52% for all other releases¹⁴
 - However, it appears that “any job of any kind” doesn't help as much. In several studies, recidivism rates only declined when parolees got higher paying jobs leading to sustainable career pathways¹⁵, such as construction and manufacturing jobs rather than retail or food service jobs¹⁶
- **Reducing employer liability could increase hiring rates of people with criminal records.** According to the Society of Human Resource Management, 52% of employers said their primary reason for checking candidate backgrounds was to reduce legal liability rather than to ensure a safe work environment (49%) or assess trustworthiness (17%)¹⁷
 - In a criminal background check, how far back should employers look? In other words, how long does it take for someone who has been convicted or arrested to demonstrate that it won't happen again? By shrinking the time horizon of background checks, pathways to employment increase
 - One answer comes from a 2009 paper which looked at 88,000 first-time arrestees in New York and followed them for the next 25 years to see whether they committed other crimes. After a sufficient amount of time following a prior offense passes without new charges, ex-offenders are no more likely to be arrested than the average citizen. For those who commit their first crime at a young age or whose first crime is a serious offense, it takes about eight years without another offense. For others, such as those who commit non-serious crimes, it can take as little as three years¹⁸

Policy experts in this field believe that viable employees are being passed over unnecessarily. Emerging research suggests that some combination of age, number of prior convictions and time since last conviction (and *not* the nature of the crime itself) are the best indicators of future criminal activity risk. In other words, the older someone is and the more time that elapsed since the crime occurred, the lower the risk to the employer of recurrence. Algorithms have their problems and biases, but policies driven by empirical data are probably better than the ad-hoc and zero-risk tolerance approaches used today by many hiring managers.

¹¹ “New data on formerly incarcerated people’s employment reveal labor market injustices”, Wang and Bertram, Prison Policy Initiative, February 2022

¹² “Conviction, Imprisonment, and Lost Earnings: How Involvement with the Criminal Justice System Deepens Inequality”, Brennan Center, September 2020

¹³ “Reentry and the Ties that Bind: An Examination of Social Ties, Employment, and Recidivism”, Justice Quarterly, 2011

¹⁴ “Safer Foundation Three-Year Recidivism Study”, Georgia Justice Project, 2008

¹⁵ “Local labor markets and criminal recidivism”, Yang (Harvard Law), 2017; “The Impact of Post-release employment on Recidivism in North Carolina”, Berger-Cross (NC LEAD), 2022; and “Not Just Any Job Will Do”, Ramakers et al. (IJOTCC), 2017

¹⁶ “Good Jobs and Recidivism”, Schnepel (Univ. of Sydney), 2016

¹⁷ Society of Human Resources Management survey, SHRM Research Institute

¹⁸ “Redemption in an Era of Widespread Criminal Background Checks”, Blumstein & Nakamura (NIJ), 2009



Employers are increasingly turning to second chance hiring

- The Second Chance Business Coalition, co-chaired by JPMorgan Chase, represents more than 40 large companies across industries that are committed to developing best practices and tools for employers to deploy second hiring and advancement strategies at companies like Accenture, CVS, Eaton, General Motors, McDonald's, Microsoft, Verizon and Walmart
- Last year, JPMorgan Chase hired more than 4,300 people with criminal backgrounds (~10% of new hires in the US) whose history fit within industry regulatory guidelines and had no bearing on the requirements of the job they were seeking
- Many were involved in low-level crimes such as disorderly conduct, personal drug possession and DUI, and are employed in jobs such as transaction processing, and lending and account servicing
- The firm “banned the box” that asked about a candidate’s criminal or arrest records on initial job applications, and established a community hiring strategy that provides legal services, job search support and mentorship in collaboration with local nonprofit organizations
- In addition to our own hiring practices, the firm is supporting Second Chance legislation at the state and Federal levels through the JP Morgan Chase Policy Center

Second Chance Bills in front of Congress

Fair Hiring in Banking Act, H.R. 5911, would expand employment opportunities for those with a previous minor criminal offense without posing safety and soundness risks to the financial system. This measure passed the U.S. House in May with significant bipartisan support and is expected to be introduced in the U.S. Senate this month

Clean Slate Act, H.R. 2864, would create a process for clearing low-level nonviolent federal records and streamlining the process through automation

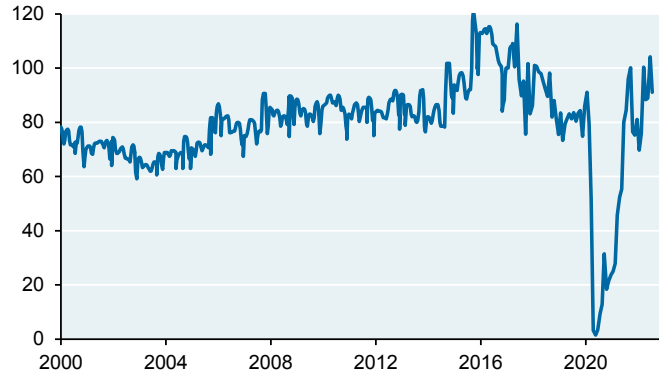
Fresh Start Act, H.R. 5651, would allow states that have expungement or sealing laws in place to apply for a Federal grant to help automate the process



Appendix charts

US Immigrant Visa issuance

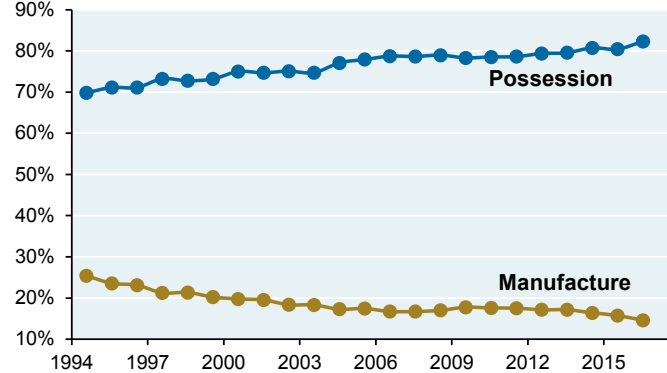
Index (100 = Dec 2016)



Source: US Dept of State, CATO, JPMAM. July 2022.

Share of drug offense arrests by type

Percent



Source: FBI, JPMAM. 2016.

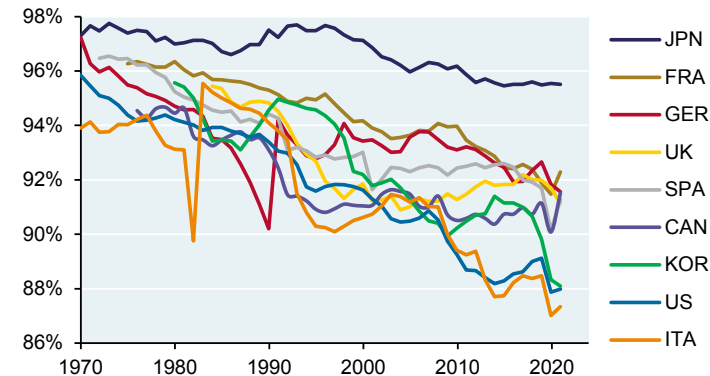
US arrests by type and share of total arrests, 2014-2016

Homicide	0.1%	Burglary	1.7%	Vandalism	1.5%	DUI	8.4%
Rape	0.2%	Larceny	8.9%	Prostitution	0.3%	Liquor laws	2.1%
Robbery	0.7%	Motor vehicle theft	0.6%	Other sex offenses	0.4%	Drunkenness	3.1%
Aggravated assault	2.9%	Property crime	11.3%	Drug abuse	12.0%	Disorderly conduct	3.1%
Arson	0.1%	Forgery	0.4%	Gambling	0.0%	Vagrancy	0.2%
Other violent crime	3.9%	Fraud	1.0%				
Other assault	8.4%	Embezzlement	0.1%				
Weapons possession	1.1%	Stolen property	0.7%				
Subtotal	17.5%	Subtotal	24.9%	Subtotal	14.3%	Subtotal	16.9%
						Other	26.4%

Source: FBI, JPMAM. 2016.

Male labor force participation rates, ages 25-54

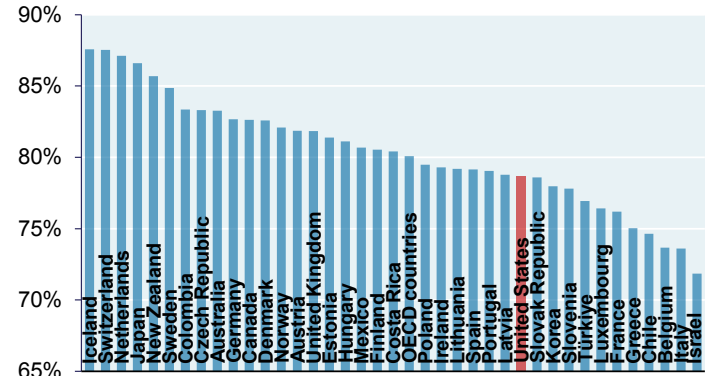
Percent



Source: OECD, JPMAM. 2021.

OECD male labor force participation rate, ages 15-64, 2021

Percent



Source: OECD, JPMAM. 2021.

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