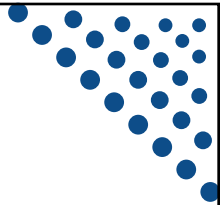


Osher Lifelong Learning Institute, Winter 2022 **Contemporary Economic Policy**

University of Southern Maine
January-February, 2022

Jon Haveman, Ph.D.
National Economic Education Delegation

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Available NEED Topics Include:

- **Coronavirus Economics**
- **US Economy**
- **Climate Change**
- **Economic Inequality**
- **Economic Mobility**
- **Trade and Globalization**
- **Minimum Wages**
- **Immigration Economics**
- **Housing Policy**
- **Federal Budgets**
- **Federal Debt**
- **Black-White Wealth Gap**
- **Autonomous Vehicles**
- **US Social Policy**

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Course Outline

• Contemporary Economic Policy

- Week 1 (1/11): US Economy & Coronavirus Economics
- Week 2 (1/18): Federal Debt (Ryan Herzog, Gonzaga University)
- Week 3 (1/25): Economics of Immigration (Jennifer Alix-Garcia, Oregon St.)
- Week 4 (2/1): Health Economics (Me)
- **Week 5 (2/8): Minimum Wage (Me)**
- Week 6 (2/15): Cryptocurrencies (Geoffrey Woglom, Amherst College)

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Minimum Wage

Jon Haveman, Ph.D.
February 8, 2022



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Credits and Disclaimer

- **This slide deck was authored by:**
 - Jon Haveman, NEED
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 - Jeffrey Clemens, UC– San Diego
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- **Disclaimer**
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Outline

- **What is the Federal minimum wage?**
- **Origin story**
- **Limitations**
 - Excluded occupations/sectors
 - Different mins for diff occupations
- **Effects of increasing**
- **Economist's perspective**



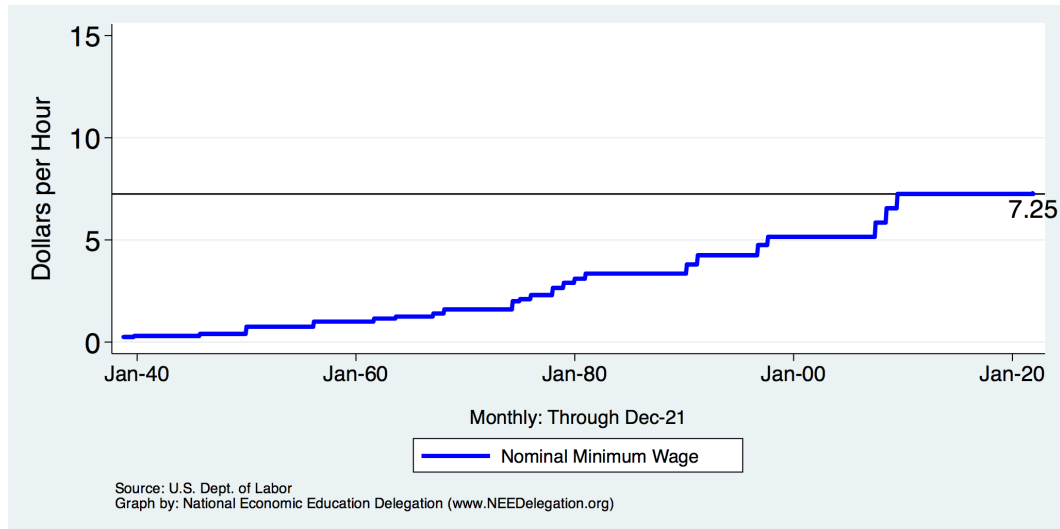
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What Is The Federal Minimum Wage?

- **The minimum wage is an example of a price control and sets a wage floor.**
 - It is unlawful for businesses in covered industries to pay a wage below the minimum.
- **The Federal minimum wage is currently \$7.25.**
- **Minimum wage of \$2.13 for tipped workers with the expectation that wages plus tips total no less than \$7.25 per hour. The employer must pay the difference if total income does not add up to \$7.25 per hour.**

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Nominal Minimum Wage Over Time



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Correcting Variables for Inflation: Comparing Dollar Figures from Different Times

- Inflation makes it harder to compare dollar amounts from different times.
- **Example: the minimum wage**
 - \$1.15 in December 1964
 - \$7.25 in April 2021
- **Did min wage have more purchasing power in December 1964 or May 2021?**
- **To compare, use CPI to convert 1964 figure into “today’s dollars”...**
- **CPI is Consumer Price Index: a measure of the overall cost of the goods and service bought by a typical consumer**



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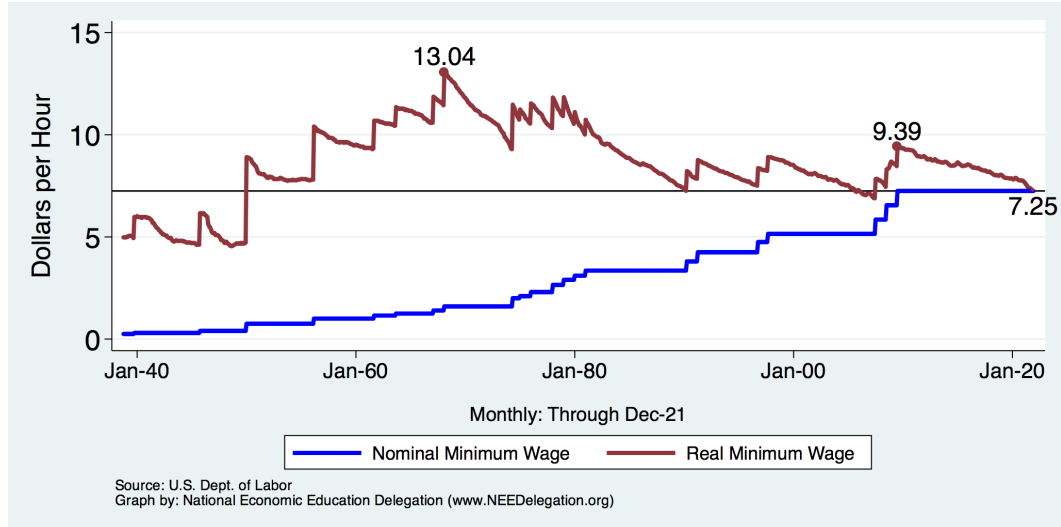
Correcting Variables for Inflation: Comparing Dollar Figures from Different Times

- Researchers, business analysts, and policymakers often use this technique to convert a time series of current-dollar (nominal) figures into constant-dollar (real) figures.
- They can then see how a variable has changed over time after correcting for inflation.
- **Example: the minimum wage, from Jan 1960 to 2021...**



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History of the Federal Minimum Wage



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From Hourly to Approx. Annual Minimum Wage

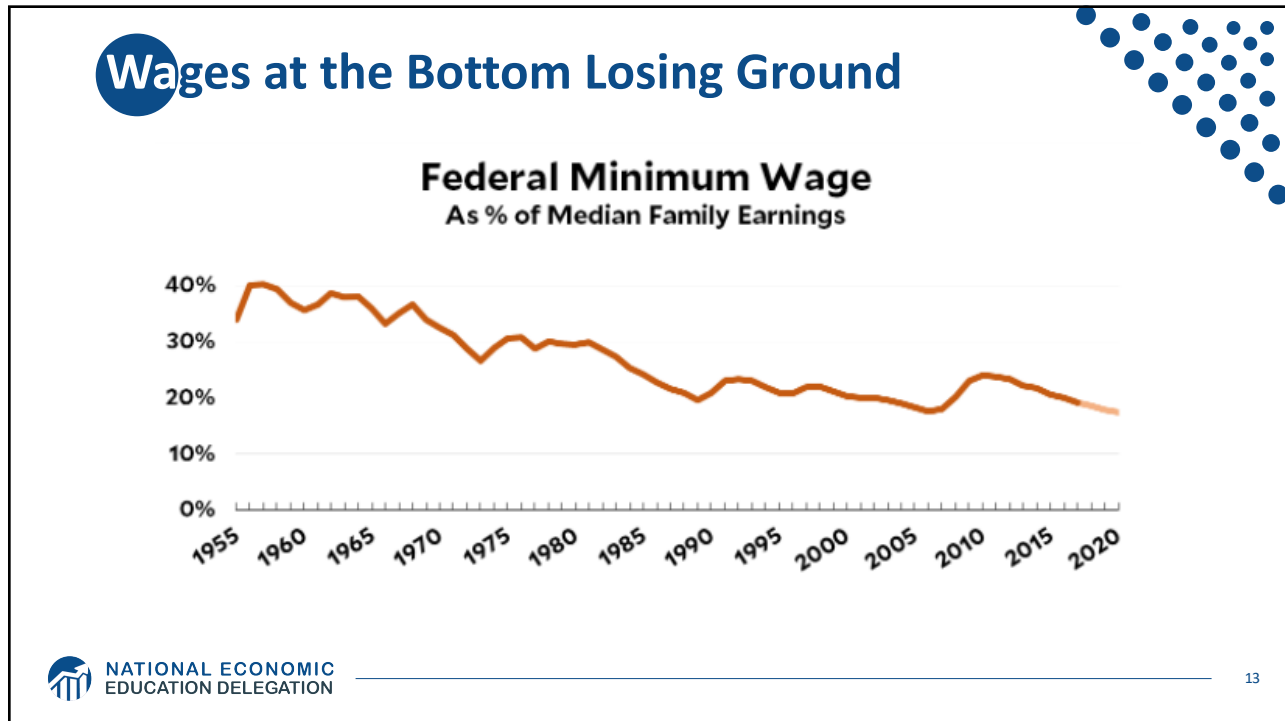
- Real Annual Minimum Wage in 1968 was
 $\$12.80 \times 40 \text{ hours per week} \times 52 \text{ weeks} = \$26,624$
- Real Annual Minimum Wage today is
 $\$7.25 \times 40 \text{ hours per week} \times 52 \text{ weeks} = \$15,080$



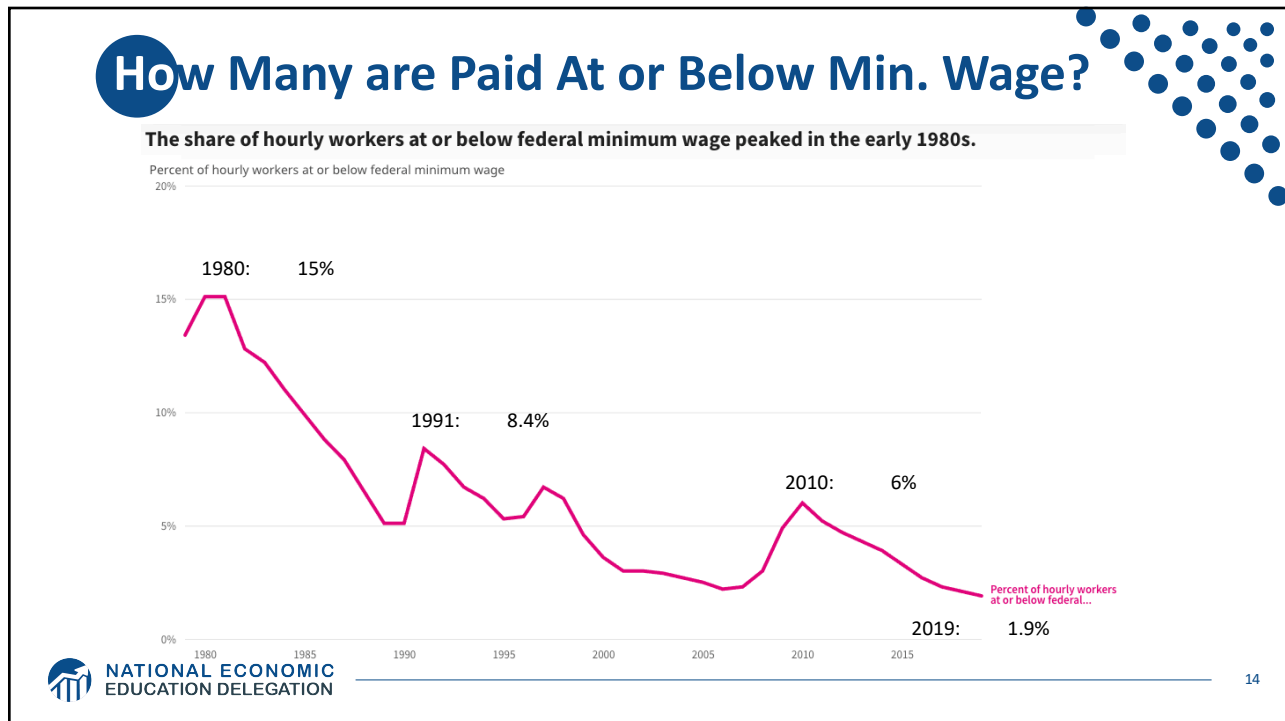
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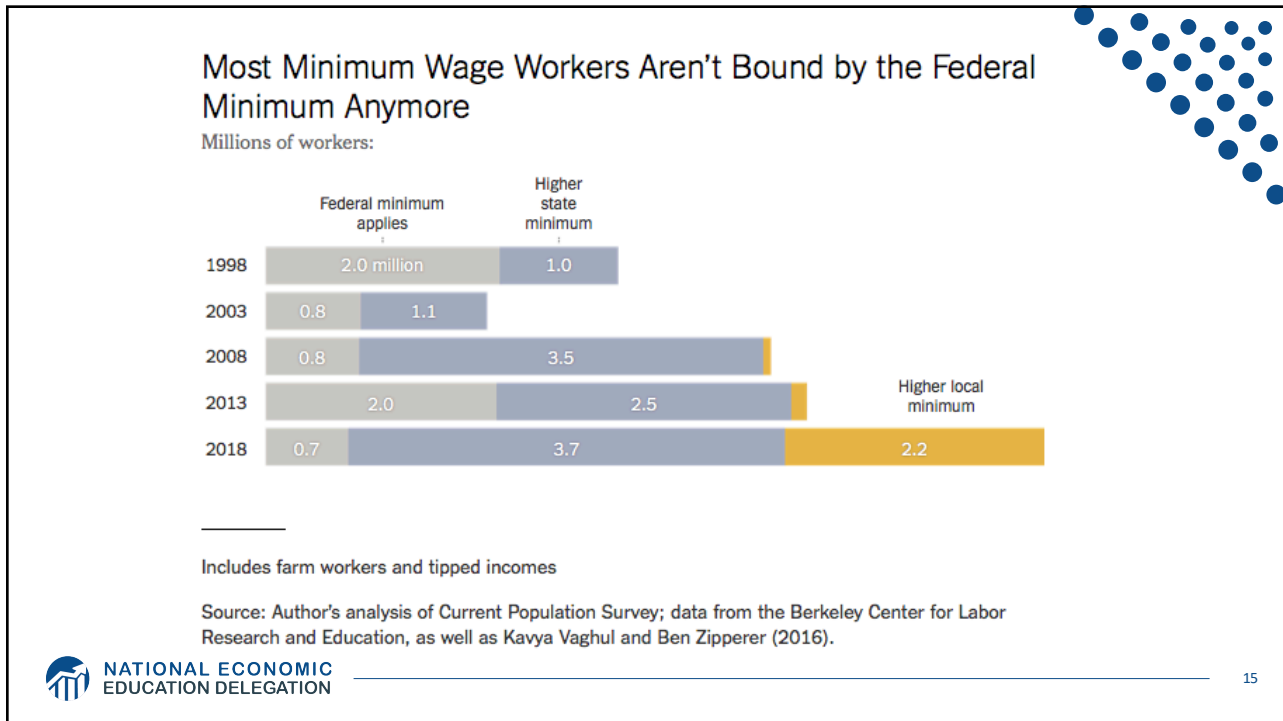
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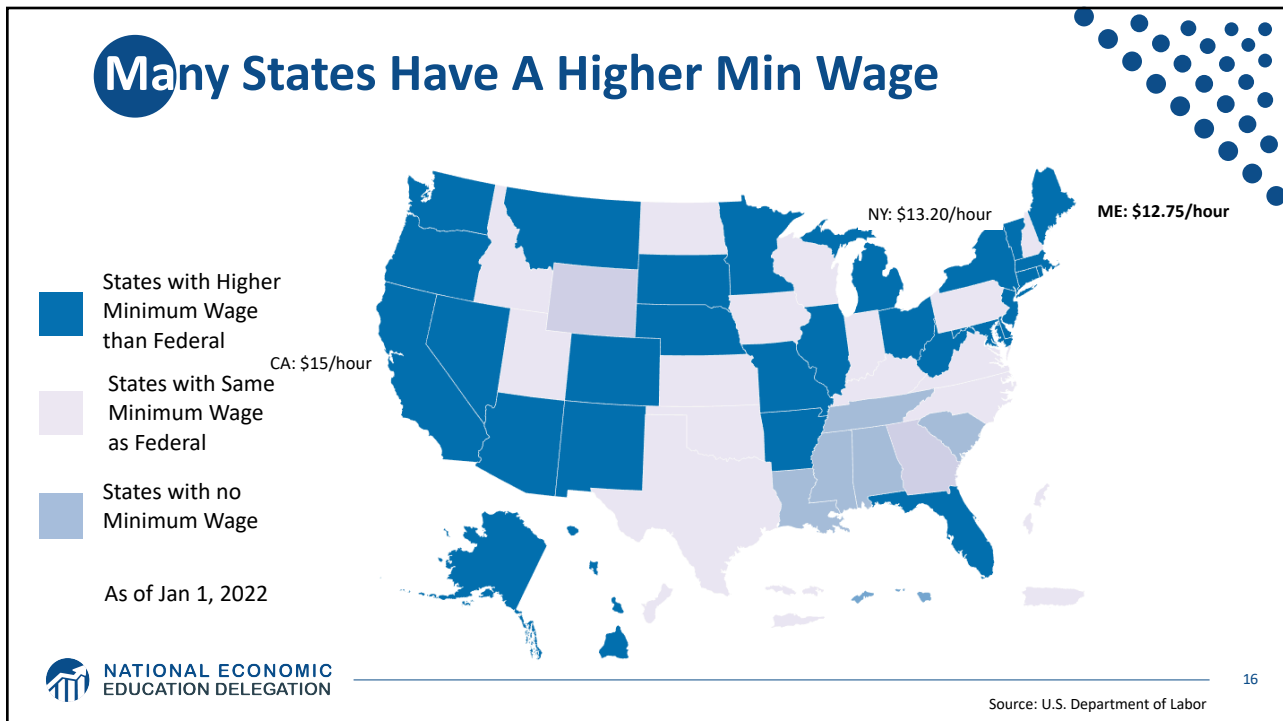
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Example: Minimum Wage in Maine

- Maine's minimum wage rate is currently is \$12.75.
- Employers must use the following hourly minimum wage schedule:

Effective Date	State Minimum Wage	Minimum Direct Service Wage	Maximum Tip Credit
1/1/2019	\$11.00	\$5.50	\$5.50
1/1/2020	\$12.00	\$6.00	\$6.00
1/1/2021	\$12.15	\$6.08	\$6.08
1/1/2022	\$12.75	\$6.38	\$6.38



Important Questions:

- What is the purpose of a minimum wage?
- What is the purpose of a FEDERAL minimum wage?
- Why do we have one?
- What are the implications of having one?
- Should we have one?
- How high should it be?



Minimum Wage: Purpose

- **International Labor Organization:**

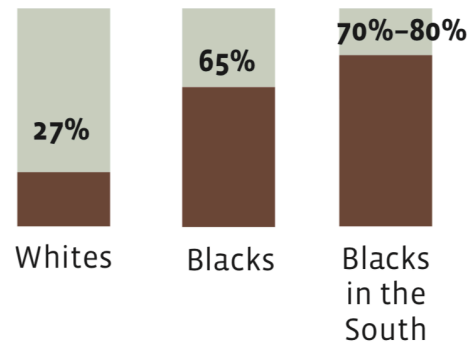
- The purpose of minimum wages is to **protect workers against unduly low pay**. They help **ensure a just and equitable share** of the fruits of progress to all, and a minimum **living wage** to all who are employed and in need of such protection.
- Minimum wages can also be one element of a policy to **overcome poverty** and **reduce inequality**, including those between men and women, by promoting the right to equal remuneration for work of equal value.



Origin Story: The New Deal

- **Minimum wages**
- **Social Security**
- **Unemployment**

INELIGIBLE FOR SOCIAL SECURITY IN 1935



Fair Labor Standards Act of 1938

- **Minimum wage: \$0.25 – raised 22 times**
- **“Covered” only about 23% of workers at the time.**
 - The law did not apply universally.
 - 11 million out of 48 million gainful workers were covered.
 - The provisions of the Act affect employees who are engaged in (interstate) commerce or the production of goods for (interstate) commerce.
 - Not covered were:
 - Farm labor, retail trade, domestic and personal service, governmental service, or the self-employed.

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Minimum Wages

- **1960s – great equalizer - MW increased in real terms 37% (8.9 to 12.24)**
 - The 1966 Fair Labor Standards Act extended federal minimum wage coverage to agriculture, restaurants, nursing homes, and other services which were previously uncovered and where nearly a third of black workers were employed.
- **Since 1968 – has fallen 41% (12.18 to 7.25)**
 - Or, in 1968, was 69% higher than it is today.
 - Exacerbating the Black-White wage gap.

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Should There be A Federal Minimum Wage?

- **Abolish a FEDERAL minimum wage?**

- **Argument in favor:**

- o Cost of living differs across states.

- **Arguments against:**

- o Could result in very different living standards across states.
- o Racial differences are a particular concern.

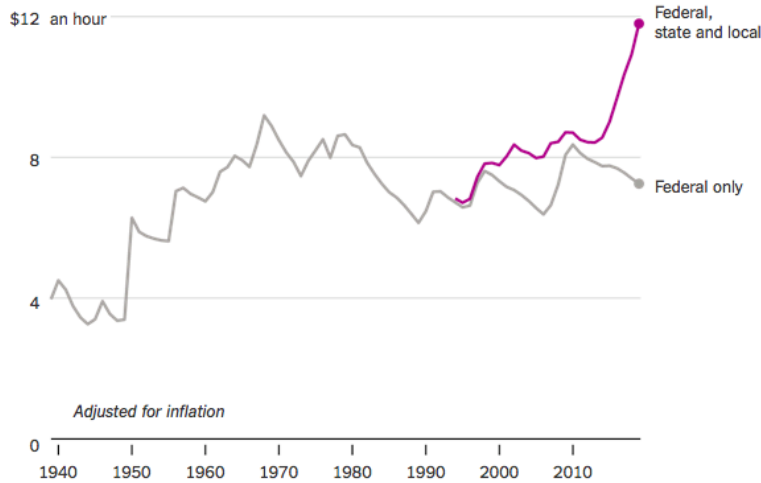
- **30% of labor force will already be under a \$15 min wage by 2025.**

- California, Connecticut, Illinois, Maryland, Massachusetts, New Jersey, New York



States and Local Gov'ts are Raising Min Wages

The average job at the federal, state or local minimum wage pays almost \$12 an hour.



Common View of Minimum Wage

- Wages go up.
- Labor costs go up.
- Employment falls and Unemployment increases.

- Bottom line: are the increased wages worth the drop in employment?

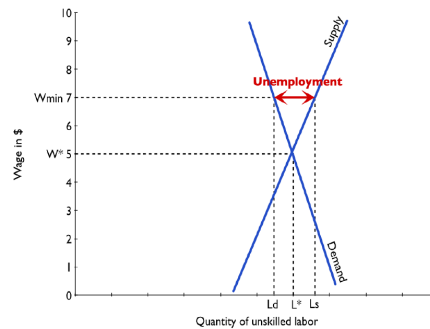
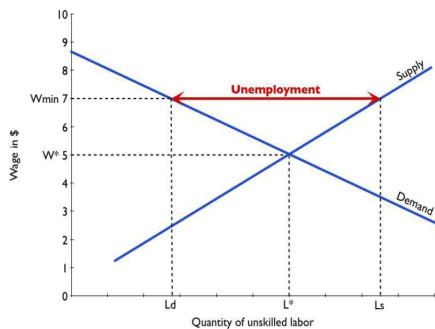
- This is a very SIMPLE view of the minimum wage.
 - Economics is complicated.



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How Much Job Loss Might Result?

- Very Elastic Supply and Demand
 - Quantity changes a lot with price.
- Very Inelastic Supply and Demand
 - Quantity changes little with price.



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Empirical Evidence

- The empirical research on the effects of min wage on employment is actually difficult to do.
- For example, over the past two decades hundreds of papers have been published on this topic, with different results.
- To summarize the evidence we can look at a **meta-analysis** performed by Belman and Wolfson (2010). They find that a 10 percent increase in the minimum wage is associated with a reduction in employment or hours of employment is close to zero.
- More recently, Neumark and Shirely (2021) look at about 70 studies. They use a bit unconventional methods but find that majority of studies report negative employment effects. However, they also conclude that the data supports relatively inelastic labor demand curve where a 10 percent increase in the minimum wage is associated with a reduction in employment around -1.45%.



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Market Structure

- **The previous graphs and analysis using Supply and Demand assumes perfectly competitive labor market.**
 - Numerous employers
 - Numerous workers
 - Each behaving as price taker and with no market power
- **Labor markets may be monopsonistic**
 - Monopsony is when there is only one buyer or a single buyer that dominates the market.
 - Similar to monopoly, where there is only one seller.
 - Both monopoly and monopsony are an example of a market failure and provide inefficient market allocations.



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Monopsony in the Labor Market and MW

- **Examples of Monopsony in the Labor Market:**
 - Coal mine owner in town where coal mining is the primary source of employment.
 - The government in the employment of civil servants, nurses, police and army officers.
 - Walmart, Amazon, Uber
 - Universities
 - Hospitals
 - Even if a firm is not a pure monopsony, it may have a degree of monopsony power, due to geographical and occupational immobilities, which make it difficult for workers to switch jobs and find alternative employment.
- **A higher, well chosen minimum wage can raise employment in a labor market where firms enjoy monopsony power.**



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Simple Views are Incomplete

- **A minimum wage need not reduce employment.**
- **An increase in the minimum wage can hurt its intended beneficiaries - even with no employment effect.**
- **This incompleteness comes from potential firm responses:**
 - Output prices
 - Nonwage compensation
 - Other job attributes:
 - Effort requirements, safety measures, quality of working environment.
- **Because business settings vary, the responses across these areas will differ across industries and between firms within an industry.**
 - No single answer is possible.



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Responses by Employer

- **Reduce employment of low wage workers.**
 - Produce less.
 - Reduce dependence on low skilled labor
 - o Using more capital or more of labor with higher skills.
- **Raise prices to consumers.**
 - Offsets the increase in labor costs, blunting the drop in employment.
 - However, it also erodes the income gains of min wage increase.
- **Reduce nonwage compensation.**
 - Health care, paid leave, etc.
- **Alter other job attributes.**
 - Effort requirements, safety, general quality of the work environment, flexibility of schedules.
- **Offshore production.**
- **Experience lower profits.**
- **Close down.**



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Responses by Employee

- **Increase their supply of labor.**
 - Growing the labor force.
- **Value the job more highly.**
 - Increased effort.
 - Reduced job search.
- **Use the increased income to:**
 - Better the lives of their family.
 - Invest in training and education.



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Arguments FOR a Minimum Wage

- **Basic:**
 - It **raises the standard of living** for minimum wage workers.
 - In 2019, CBO projected increases for 17 million people with an increase to \$15/hour by 2025.
- **Secondary - Less consensus:**
 - **Improved employee morale.**
 - Less turnover, greater productivity.
 - **Economic growth potential.**
 - Increased purchasing power among low wage workers may increase aggregate demand.
 - **Reduce gender disparities in wages.**
 - A greater proportion of female workers are paid the minimum wage.
 - Proportions across race and ethnicity do not differ significantly.



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Source: <https://www.investopedia.com/articles/markets-economy/090516/what-are-pros-and-cons-raising-minimum-wage.asp>

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Arguments AGAINST a Minimum Wage Hike

- **Basic:**
 - Increased labor costs **lowers employment** among low wage workers.
 - Particular effect on:
 - Small businesses.
 - Labor intensive industries.
- **Secondary:**
 - Increases the cost of living – inflation.
 - Producers may raise prices to offset the increase in labor costs.
 - May change the nature of the workplace environment.



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Source: <https://www.investopedia.com/articles/markets-economy/090516/what-are-pros-and-cons-raising-minimum-wage.asp>

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Who Wins? No Clear Answer

- **Minimum wage is more likely to be beneficial at lower wages and with smallish changes.**
- **The spillover effects of an increase in the minimum wage are not well understood:**
 - Increased effort and employee retention.
 - Increase in prices/inflation.
 - Reduction of nonmonetary compensation.
 - Less attractive work environment.
 - E.g., more variable work schedules, fewer safety measures.
- **“Conservative/Liberal” divide in the profession**
 - Conservatives – emphasize job losses
 - Liberals – minimize job losses
 - Both are incomplete.....



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Consensus of Employment Effects?

- **Short answer: No!**
- **Longer answer:**
 - Trend in the literature is toward finding progressively smaller NEGATIVE employment effects.
 - Most analyses indicate negative employment effects.
 - Some confirmation that the negative implications for employment, or hours, translates into negative implications for compensation.



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Raise the Wage Act 2021 (RWA)

- Raise the federal minimum wage from \$7.25 to \$15 by 2025;
- Index the federal minimum wage to median wage growth;
- Eliminate multiple minimum wages:
 - End tipped workers lower minimum wage;
 - End teen worker lower minimum wage;
 - End subminimum wage certificates for workers with disabilities.

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Scheduled Min Wage Increases Under RWA

Year	Minimum Wage	Tipped Wage	Youth Wage	14(c) Wage
Current	\$7.25	\$2.13	\$4.25	Subminimum Wages
2021	\$9.50	\$4.95	\$6.00	\$5.00
2022	\$11.00	\$6.95	\$7.75	\$7.50
2023	\$12.50	\$8.95	\$9.50	\$10.00
2024	\$14.00	\$10.95	\$11.25	\$12.50
2025	\$15.00	\$12.95	\$13.00	\$15.00
2026	Index to Median Wages	\$14.95	\$14.75	Equal to Standard Minimum Wage
2027		Equal to Standard Minimum Wage	Equal to Standard Minimum Wage	

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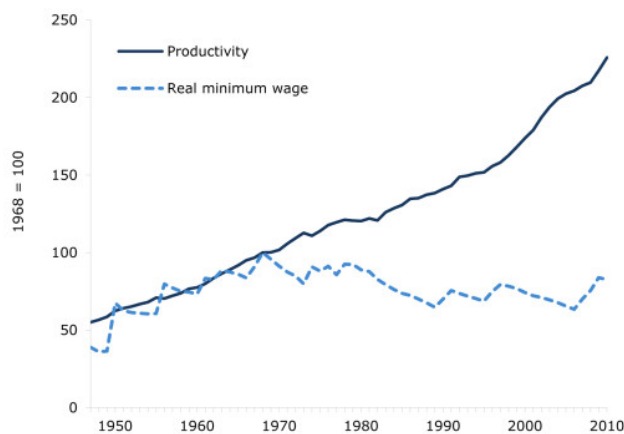
Economic Consensus on \$15/hour? NO

- Increases are well outside the range of previous experience.
- **Ambiguous impact on affected worker's living standards:**
 - Negative: unemployment, lower on the job amenities, inflation
 - Positive: higher wages
- **Likely NOT an improvement for business owners.**
 - Unless it induces implausibly high levels of increased worker effort.
- **Implications for broader society are unclear.**
 - But the minimum wage is implemented as an efficiency tradeoff for equity.
 - It is a policy that reflects society's values regarding the welfare of workers.



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Real Minimum Wage and Productivity



If minimum wage had kept up with productivity increases and keep up with inflation it would be over \$24 per hour.



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CBO Analysis

• Effects of increase to \$15 – summary:

- **Increased wages** for 27 million people in 2025.
 - 17 million who would be below \$15/hour.
 - 10 million who would have earned just above \$15/hour.
 - Increased labor compensation of \$333 billion between 2021 and 2031.
 - \$509B in increased pay.
 - \$175B less because of job losses.
- Put 1.4 million **out of work** (0.9% of workers).
 - Primarily young, less educated workers.
- Lift 900,000 out of **poverty**.
 - 2019: 34 million people lived in poverty.

What to make of the CBO results?

• Primary Results

- Increased wages for 27 million people.
- 1.4 million fewer low wage jobs.
- 900,000 lifted out of poverty.

• Reasonable people can, and do, disagree about whether or not the tradeoff is worth it.

• Important question: Is there a better policy instrument?

- Up for consideration: expanding the Earned Income Tax Credit.
 - Also raises the incomes of low wage workers, but puts taxpayers on the hook instead of businesses.
 - *Again, reasonable people can, and do disagree about whether this is better.*
- Up for consideration: Can trade unions do a better job in wage negotiation?

The Impact on Poverty and Wage Inequality

- MW can help “working poor”.
- MW is not great in decreasing poverty. A large number of individuals that are poor (i.e. children or disabled) do not work. In this way, no matter how high the minimum wage is, if you do not work, you do not get any benefits from it.
- Many who earn MW also do not live in poor households (i.e. teenagers in wealthier households).
- There is evidence that increase in MW can decrease wage inequality



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Other Options?

- **Why Federal MW and not simply State or Local?**
- **Why not rely more on the use of collective bargaining agreements and unions**
- **Earned Income Tax Credit (EITC):** provides an income subsidy (in the form of a tax credit) to low-income working families. The tax credit benefits are phased out slowly so that workers are not penalized as they earn more income.



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EITC superior on many grounds

- **MW**
 - May costs some jobs (or hours worked).
 - Does not target benefits on the poor.
 - Does not redistribute from the richest.
- **EITC**
 - Targets the poor effectively.
 - Encourages work.
 - Better long-term effects.
 - Financed by taxes (hence can decrease inequality).
 - We can make it more generous.



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But Both Might Be Better Together

- **EITC – encourages more people to work, lowering wages.**
 - Reduces the amount of the EITC that goes to workers. Some goes to employers.
- **Minimum wage – can reduce the extent to which wages fall with the EITC.**
 - Minimum wage shifts EITC back to workers and away from employers.
- **Minimum wage can dilute the wage reducing effects of the EITC.**
 - Workers keep more of their EITC payments.



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Summary

- **The minimum wage has been around since 1938.**
 - The comprehensiveness of its coverage has steadily increased.
- **The Federal minimum wage is currently \$7.25/hour.**
 - It's level has fluctuated, both up and down in inflation adjusted terms.
 - o It is currently 41% below it's peak in the 1960s.
- **There are perfectly valid arguments for and against it.**
 - Economics is not currently able to provide a definitive answer.
 - Depends on the tradeoff between higher wages and employment.
- **The textbook exposition (price up -> quantity down) is a gross simplification.**
 - The reality of its evaluation is much more complicated.
- **The FEDERAL minimum wage is waning in importance.**
 - States take up the mantel.
- **Economists do not have a clear position or anything like consensus on the issue.**
 - But the research is trending in the direction toward benefits (improved living standards) and away from direct costs (unemployment).



Most Important Point: It's Complicated

- **Minimum wage helps some (many?) workers, but has negative consequences.**
- **Little or no evidence of net benefits for low-income families.**
- **There are winners and losers from a higher minimum wage.**
- **Policymakers and the public then have to decide if enough of the gains are going to those they want to help, to offset the losses for others.**
- **There are other policies that likely work better.**



Driving Change – Autonomous Vehicles’ Big Impact



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 - Jon Haveman, NEED
- **This slide deck was reviewed by:**
 - Ronald Fisher, Michigan State University
 - William F. Fox, University of Tennessee, Knoxville
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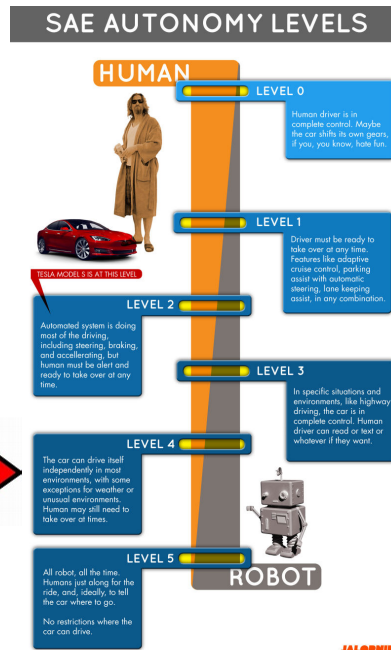
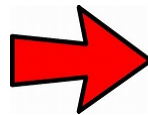
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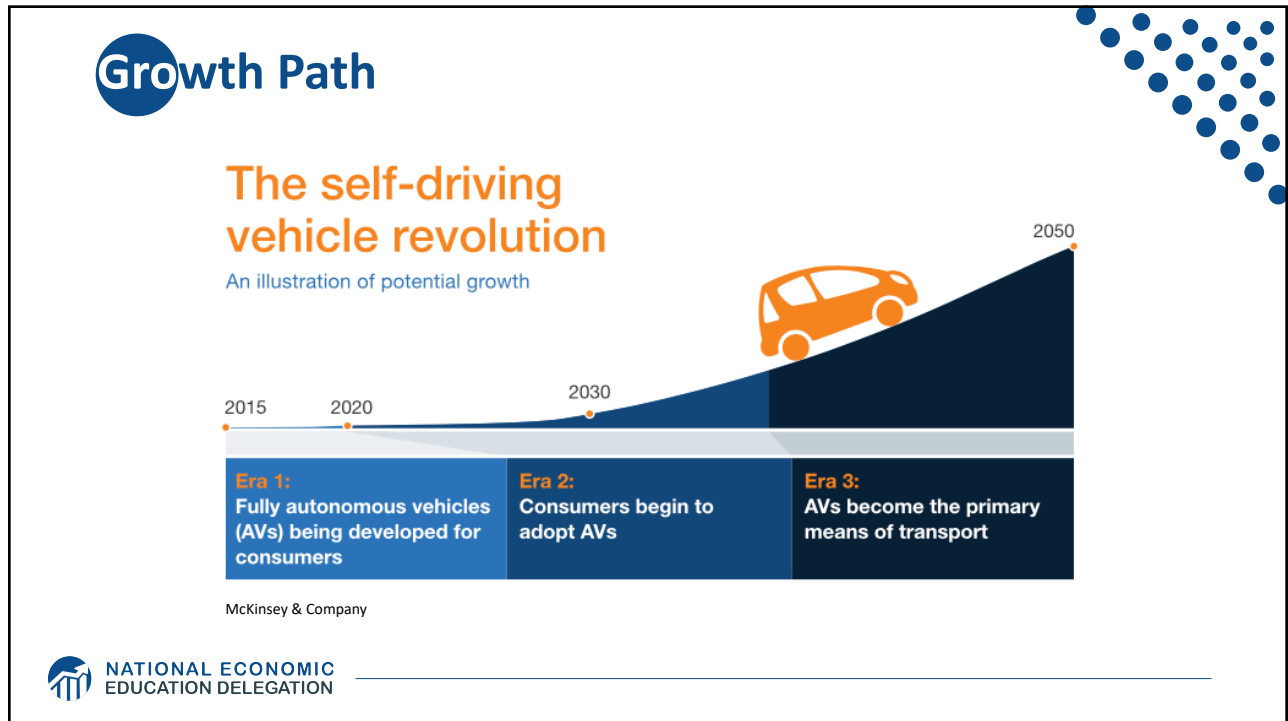
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Outline

- Where does the AV path lead?
- Transition
- Policy/Planning Issues
- Major Economic/Development Changes

Autonomous Taxonomy





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40+ Corporations Working On Autonomous Vehicles

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WHEN?

What is possible?

- **By 2025 (?)**
- **Potentially 95% of VMT by 2035.**
 - Last 5% may be very difficult to achieve.
- **Is this possible?**
 - Horses to cars: 10 years – early 1900s
 - But adoption of EVs is so slow!
 - Adoption of AVs will be rapid.



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Waymo's self-driving cars are now available on Lyft's app in Phoenix

Hyundai plans to launch a free robot taxi service in California

Singapore's self-driving cars can now be hailed with a smartphone

NuTonomy joins forces with 'the Uber of Southeast Asia'

Cruise to offer free robo-taxi rides in S.F. for the public — without backup drivers



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What will the future look like?



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This:



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But, will it be:



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Hell

- **Primarily individual private car ownership**
 - Much as today.
- **Internal combustion engines**
- **Why Hell?**
 - Dramatically increased VMT and pollution.
 - Potentially increased congestion.
 - Parking




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Two Adults and a Child: Morning Miles

And this is just the morning.....

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Heaven



- **Vehicle ownership will be very limited**
 - Private ownership for those with specialized vehicle needs.
 - Fleet ownership will serve everybody else.
- **Engines: electric**
- **Not clear when we will get there, but this is the likely model.**
 - 2030 for widespread adoption in many regions.

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Why is this Heaven?

- **Not only autonomous, but:**
 - Shared
 - Connected
 - Green
- **Far fewer cars in existence.**
 - Better resource utilization: steel, rubber, aluminum, and land!
- **VMT could go up or down, but more productive than in Hell.**
- **Congestion effects – unclear, but likely reduced.**
 - Right-sized vehicles, platooning, sharing, V2V communication
- **Minimal need for parking.**



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Economics Drives Transition: Private

- **Adoption dividend for private individuals**
 - Eliminate car ownership
 - Ave annual cost of owning a car: \$9,561 (2020)
 - Cost per mile will fall: \$0.59 to \$0.19
 - Repurpose your garage
 - \$50,000 from transition to bedroom
- **Time recovery**
 - 50% of the San Francisco Bay Area workforce has a commute in excess of 30 minutes.



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Economics Drives Transition: Public

- **Economic and social costs associated with human drivers are enormous:**

- ACCIDENTS (U.S.):
 - Drive 25% of congestion.
 - Result in 40,000 deaths.
 - And 2 million injuries.
 - 90+% caused by human error.
- Increased productivity from not driving.
- Costs of human drivers estimated at up to \$1.3 TRillion each year in the U.S.



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Encourage Change

- **Mobility and equity considerations**
 - Elderly/disabled/impovertished
- **Safety:** only way to reduce traffic fatalities is by coordinated effort
- **Productivity:** reduced congestion
- **Environment:** speed transition to electric vehicles

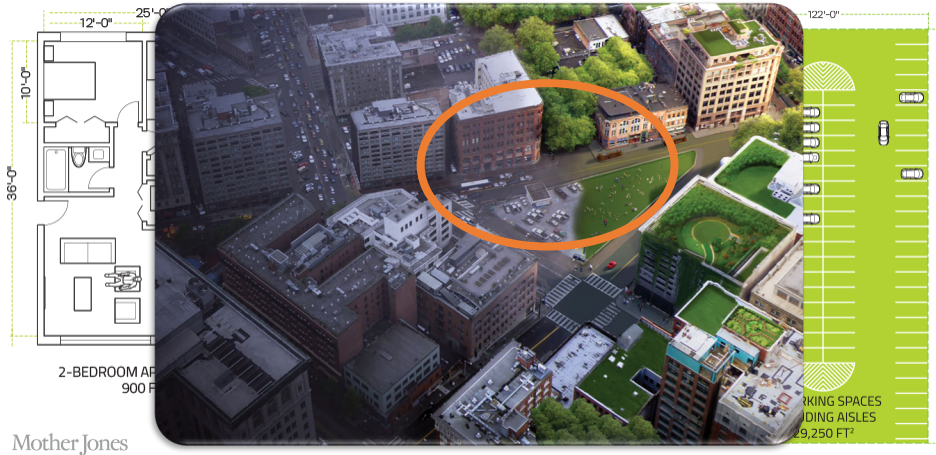
These are all societal benefits that come about too slowly
if the private market is left to itself.



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Environment



What Changes Will This Bring?

- Disposable income
- Government finances
- Transportation demand
- Infrastructure
- Public transportation
- Housing
- Employment
- Parking

Potentially dramatic improvements in infrastructure planning and maintenance -
Data sharing and integration

Employment

- **Massive job displacement/relocation (Millions!):**
 - Drivers of all varieties: truck, taxi, delivery...
 - Car production jobs, car parts production jobs
 - Gas station, vehicle repair, and body shop
 - Police and fire
 - Health care workers
 - And so on...



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Parking

- **Greatly reduced demand for parking lots.**
- **Service providers will own parking lots in strategic places.**
- **Street parking will largely be a thing of the past.**
 - More green space in cities.
- **Shopping mall and apartment parking?**
 - Converted to housing?



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Freeing Up Urban Space from Parking

- **Los Angeles: 14% of incorporated land area**
 - 200 Square miles
- **San Francisco: 275,450 on-street parking spaces**
 - Enough to parallel-park a line of cars 60 miles longer than California's entire 840-mile coastline
- **In the US: (estimate) 500 million spaces**
 - That's larger than Delaware and Rhode Island combined.
 - Could be as many as 2 billion (add in Connecticut and Vermont).



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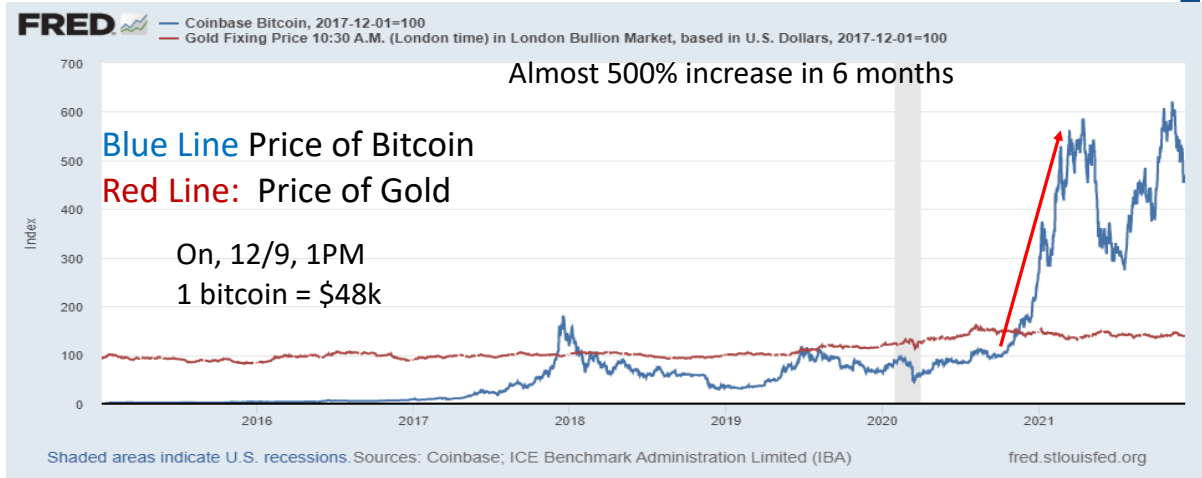
Summary of Change

- **Massive employment upheaval.**
- **Local government finances will look very different.**
- **Housing will be easier to build and more plentiful.**
- **Parking conversions will be commonplace.**
- **Demand for transportation infrastructure will likely decline.**
 - Transportation infrastructure technology will be a booming business.
- **Demand for public transportation may well decline.**
- **Coming likely sooner rather than later!**



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Bitcoins: Next Week w/Geoffrey Woglom



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Thank you!

Any Questions?

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