

# **The State of Broadband in Mississippi**

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**April 13<sup>th</sup>, 2017**

**MS Public Service Commission**

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# Reaching 100 million users worldwide

- Telephone **75 years**
- Mobile phone **16 years**
- World Wide Web **7 years**
- Facebook **4 years**
- Instagram **2 years**
- PokemonGo **1 month**



Source: Twitter user @ValaAfshar; ITU; Statista; BCG Research



# The Digital Economy

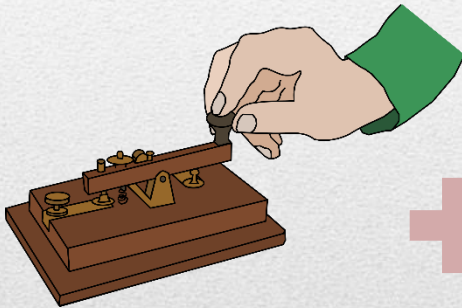


- In 2016, it employed **32 million +** people than in 2010
- By 2020, will reach **\$6.6 trillion** in G-20 economies
- Real threat to economic growth: **digital divide**

Source: Boston Consulting Group

# 1<sup>st</sup> Industrial Revolution

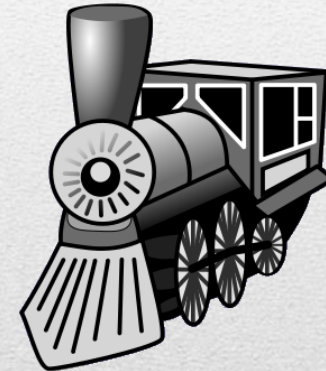
**Communication**



**Energy**



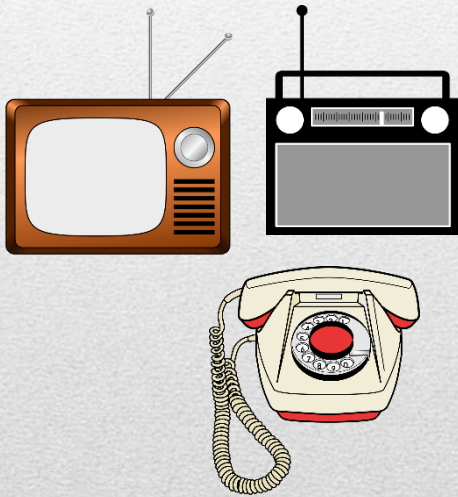
**Transportation**



**Source: Rifkin, J. (2015). The Zero Marginal Cost Society**

# 2<sup>nd</sup> Industrial Revolution

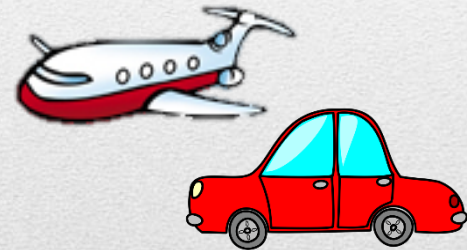
## Communication



## Energy



## Transportation



Source: Rifkin, J. (2015). *The Zero Marginal Cost Society*

# 3<sup>rd</sup> Industrial Revolution

## Communication



## Energy



## Transportation



Source: Rifkin, J. (2015). *The Zero Marginal Cost Society*

# Digital Potential

- **Dozens of indicators**
- **Building digital assets**
- **Expanding digital usage**
- **Creating digital workforce**



# 18%

Source: [McKinsey Global Institute \(2015\)](#)

# Digitization, huh?



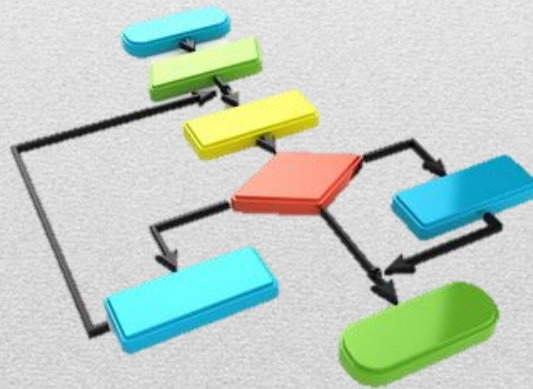
- **Internet of Everything (IoE)**
  - “Physical world can now be digitized, monitored, measured, and optimized.” – **Project Syndicate**
- At least **50 billion** devices will be connected by 2020 – Cisco (2014)
- “IoE is a **\$19 trillion** global opportunity over the next decade” – Cisco (2014)
- Up to **\$11 trillion annual** economic impact in 2025 – McKinsey (2015)



# 21<sup>st</sup> Century Oil

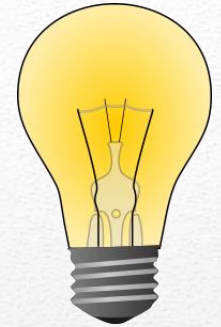
**“Big Data is the oil of the 21<sup>st</sup> century. Oil is useless thick goop until it’s refined into fuel. Big data’s version of refined fuel—proprietary algorithms that solve specific problems that translate into actions.”**

## Hello algorithm economy!



Source: Peter Sondergaard. [Forbes](#)

# How exactly does it work?



## Innovators\*

- ✓ • Access to talent
- ✓ • Networking opportunities
- ✓ • Proximity to customers and suppliers

## Rural areas offer

- **With connectivity & know how**
- Better air quality
- Natural amenities
- Less traffic

\*Source: [Washington Post](#)

# Economic landscape shifting



## Industrial Economy

- **Geographic proximity**
- **The bigger, the better**
- **Tied to office, factory**
- **Mass production**

## Digital Economy

- **Decentralization**
- **Economic gardening**
- **Work from anywhere**
- **Open innovation**

# Digital Globalization



- **Digital flows**—nonexistent 15 years ago—have a **larger impact** on GDP than centuries-old **goods trade**
- Trade was once **confined to advanced economies and large multinational companies**
- Today digital globalization has opened the door to **developing countries, small companies and start-ups, and billions of individuals**

Source: McKinsey Global Institute. Digital Globalization: The New Era of Global Flows. March 2016



# Digital Age makes possible ...



Credit: Jordana Barton. Federal Reserve Bank of Dallas

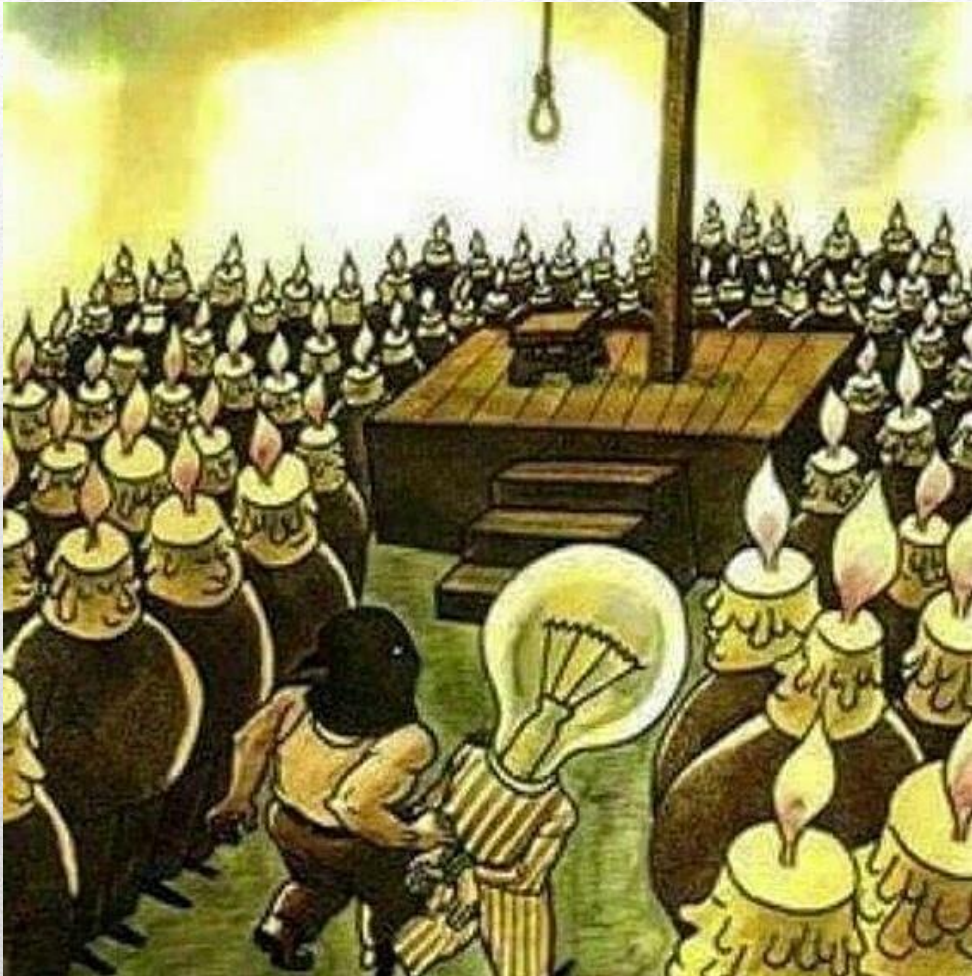
# Do I need faster Internet?

**... is like asking ...**



**Do I need electricity when I  
already use candles?**

# Change is not easy ...



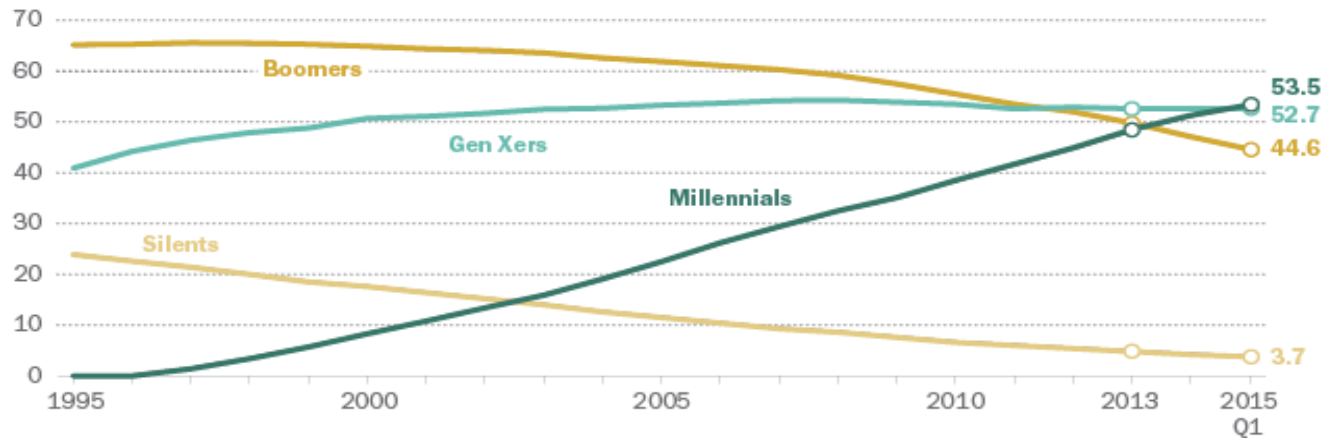
**“Doubt is an uncomfortable condition, but certainty is a ridiculous one.”**  
**Voltaire**

# That selfie generation ...

## U.S. Labor Force by Generation, 1995-2015

### U.S. Labor Force by Generation, 1995-2015

In millions



Note: Annual averages plotted 1995-2014. For 2015 the first quarter average of 2015 is shown. Due to data limitations, Silent generation is overestimated from 2008-2015.

Source: Pew Research Center tabulations of monthly 1995-2015 Current Population Surveys, Integrated Public Use Microdata Series (IPUMS)

PEW RESEARCH CENTER



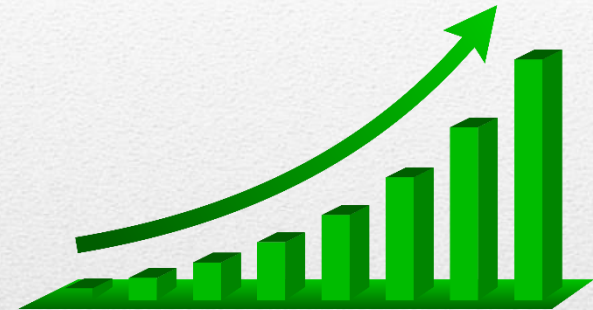
# Extension Resources

- **Virtual Incubator Program (VIP)**
- **Master Technology Innovator (MTI)**
- **Digital Literacy**
- **Websites**
- **4-H Robotics/Scratch Jr.**
- **E-Front Door**
- **Digital Works**
- **DR Certification**



# Digital Divide Index

- **Census tract data**
- **Broadband Infrastructure**
  - **Access (Availability)**
  - **Speed (Download/Upload)**
  - **Residential Connections**
- **Socioeconomic characteristics**
  - **Percent Ages 65+**
  - **Percent Age 25+ with less than high school**
  - **Individual Poverty Rate**
- **Index Score: 0 to 100**
- **[ici.msucare.com/ddi](http://ici.msucare.com/ddi)**



# DDI: Mississippi

- **Infrastructure/Adoption**

- 2014: 75.05 (49<sup>th</sup>)
- 2015: 77.48 (49<sup>th</sup>)

- **Socioeconomic**

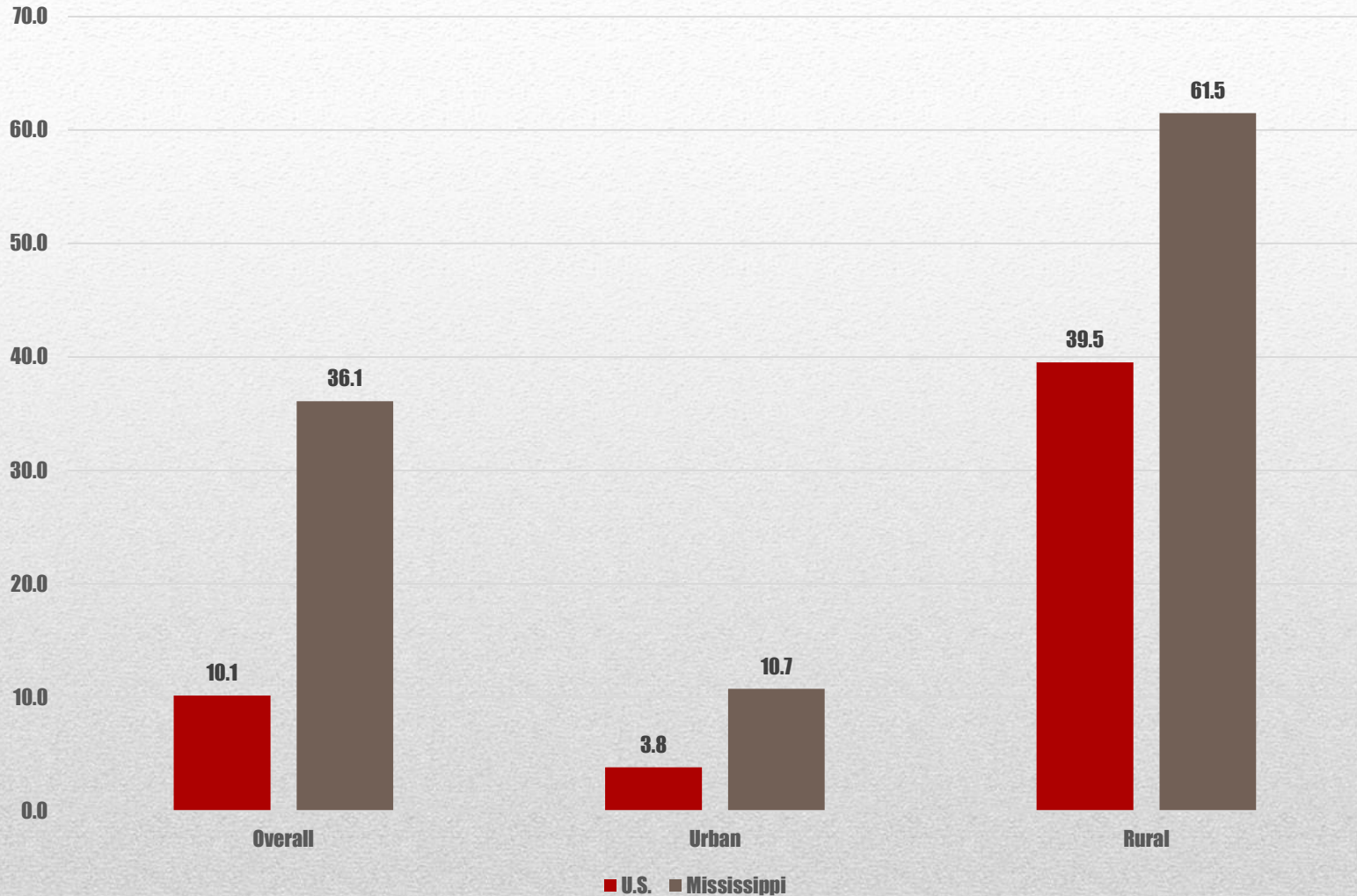
- 2014: 52.14 (51<sup>st</sup>)
- 2015: 53.41 (51<sup>st</sup>)

- **Digital Divide Index**

- 2014: 63.80 (51<sup>st</sup>)
- 2015: 64.70 (51<sup>st</sup>)



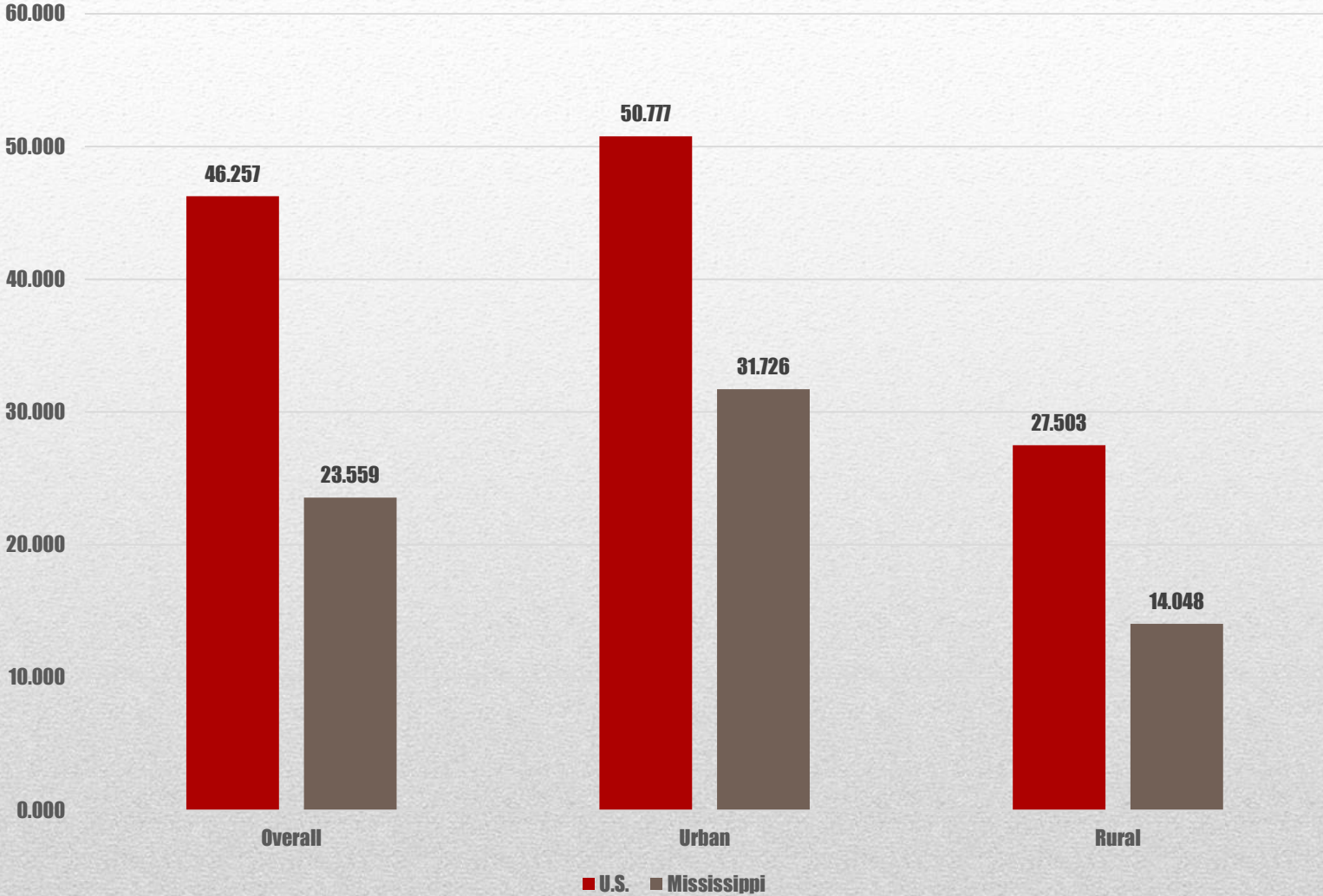
## Percent 2010 Population without Access to 25/3 Fixed Broadband



Source: FCC Form 477 December 2015 v2; Census-tract data



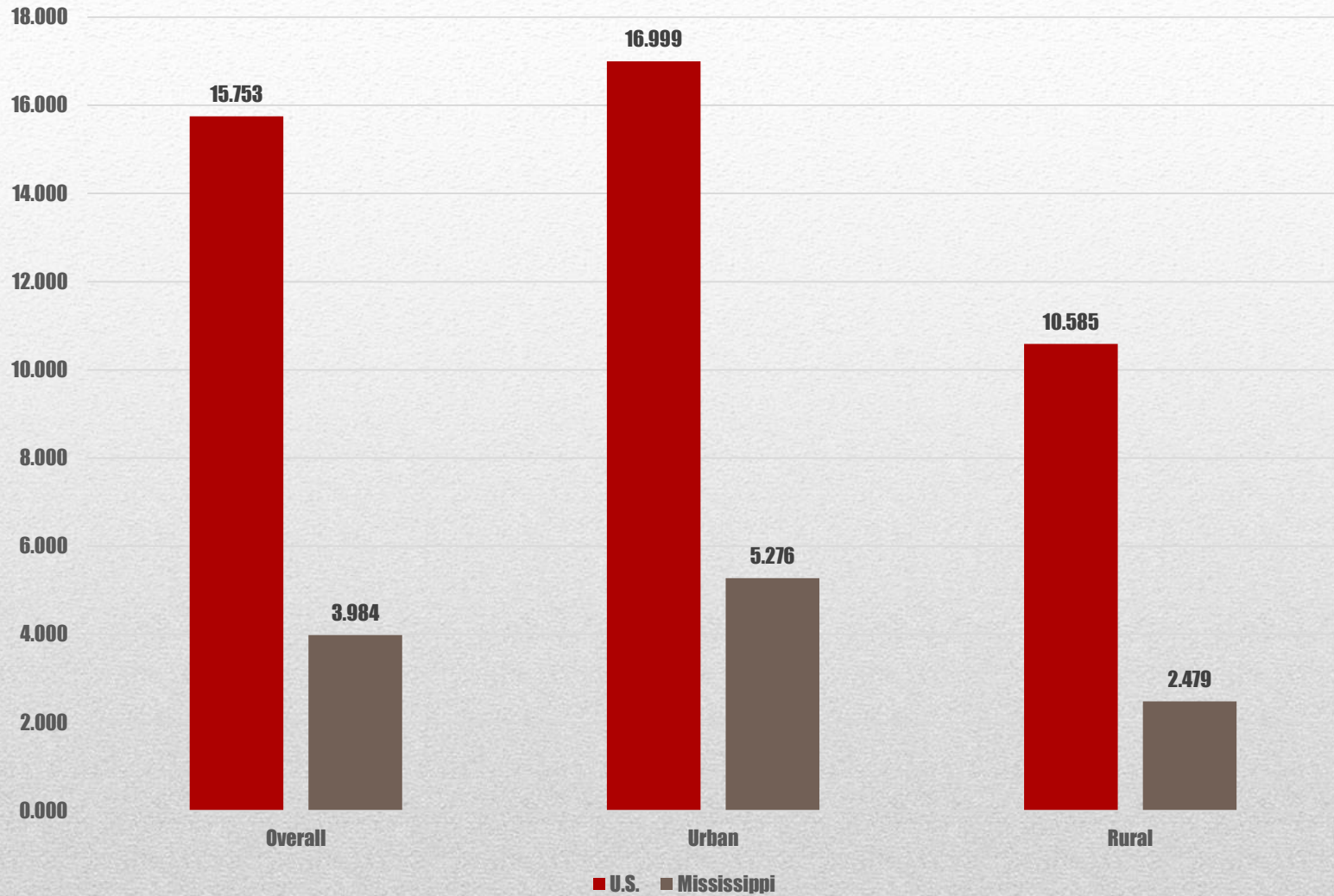
# Avg. Max. Adv. Download Speeds (Mbps)



Source: FCC Form 477 December 2015 v2; Census-tract data



## Avg. Max. Adv. Upload Speeds (Mbps)

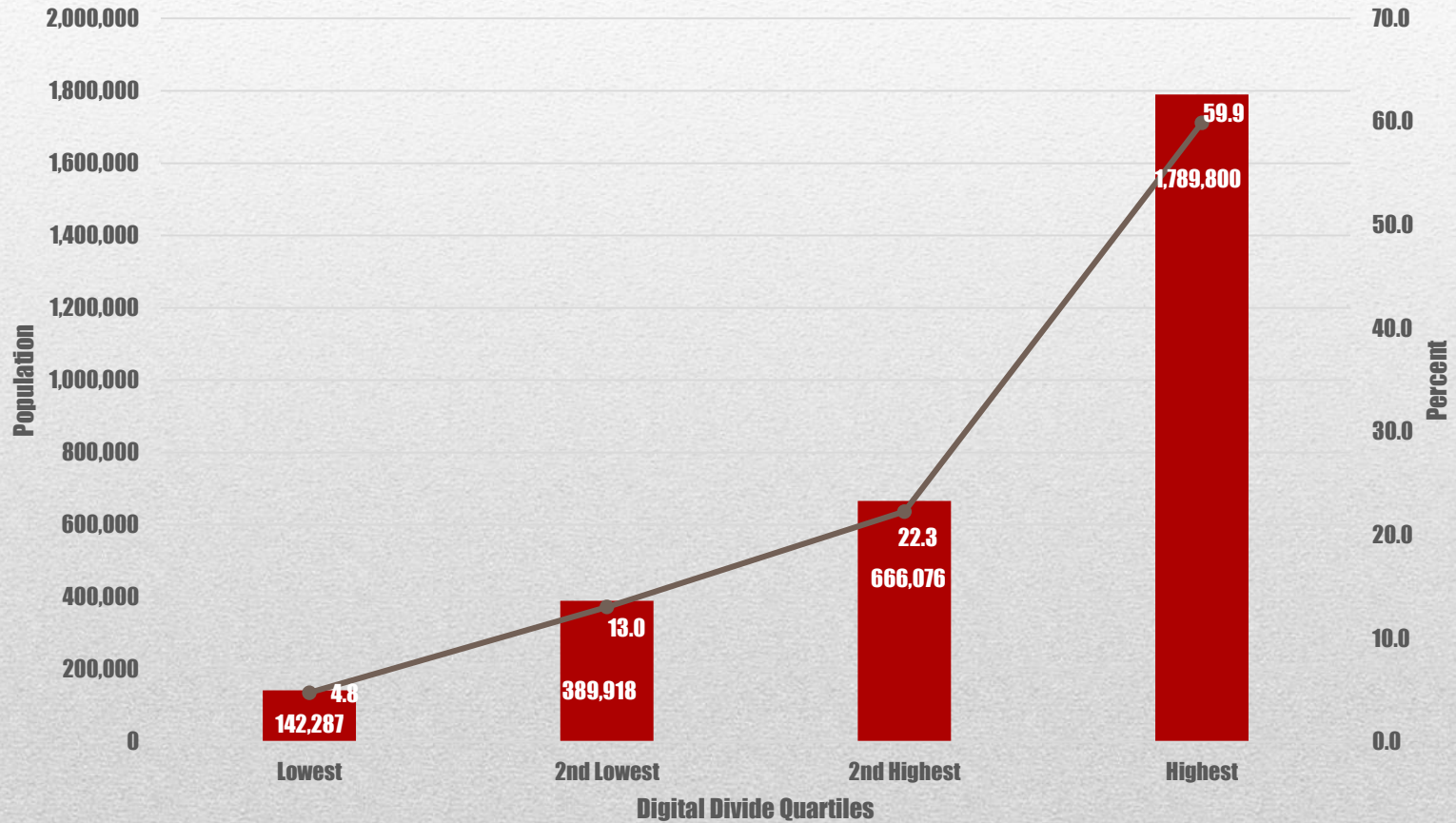


Source: FCC Form 477 December 2015 v2; Census-tract data



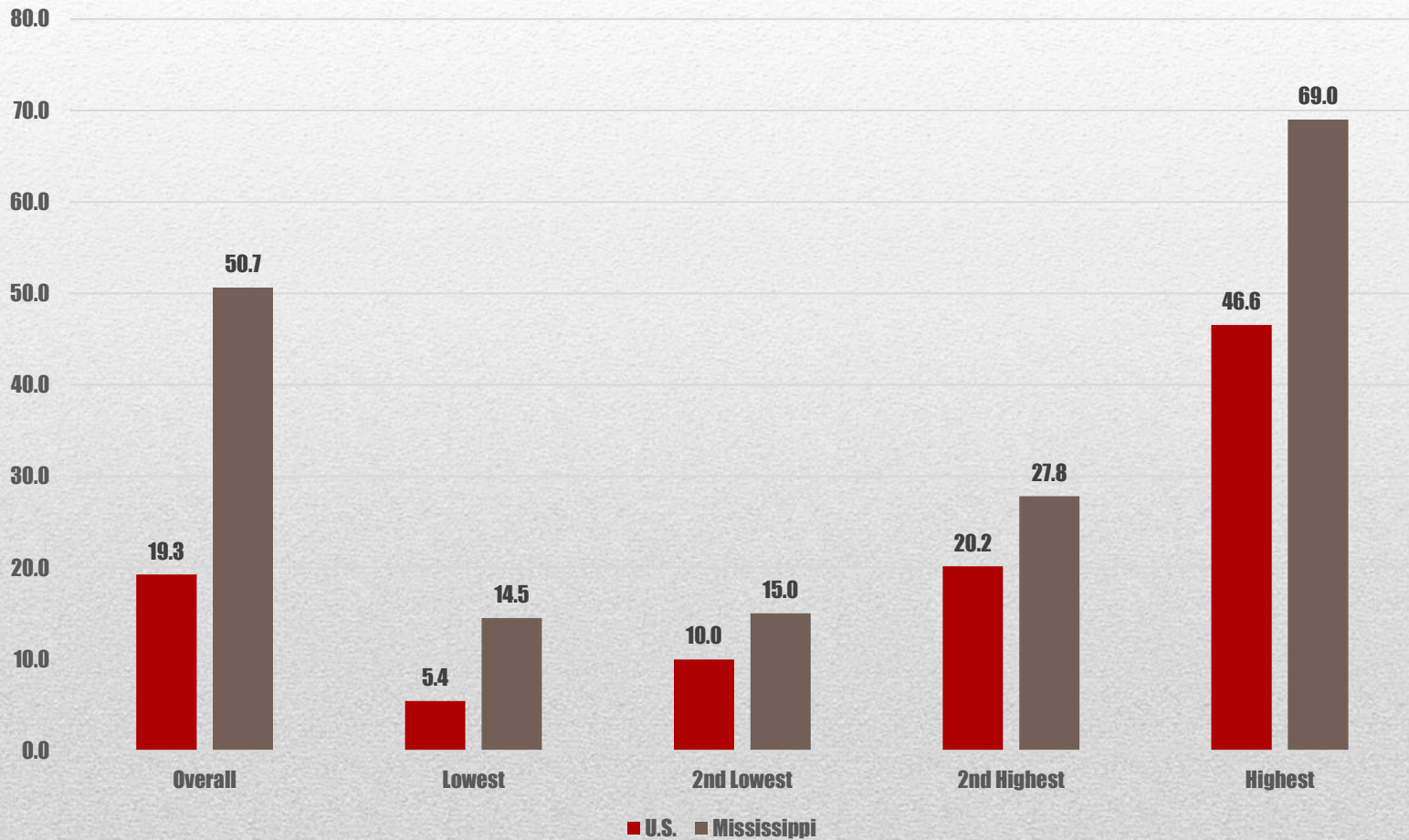
# DDI: Mississippi

## 2015 Population Mississippi



# DDI: Mississippi

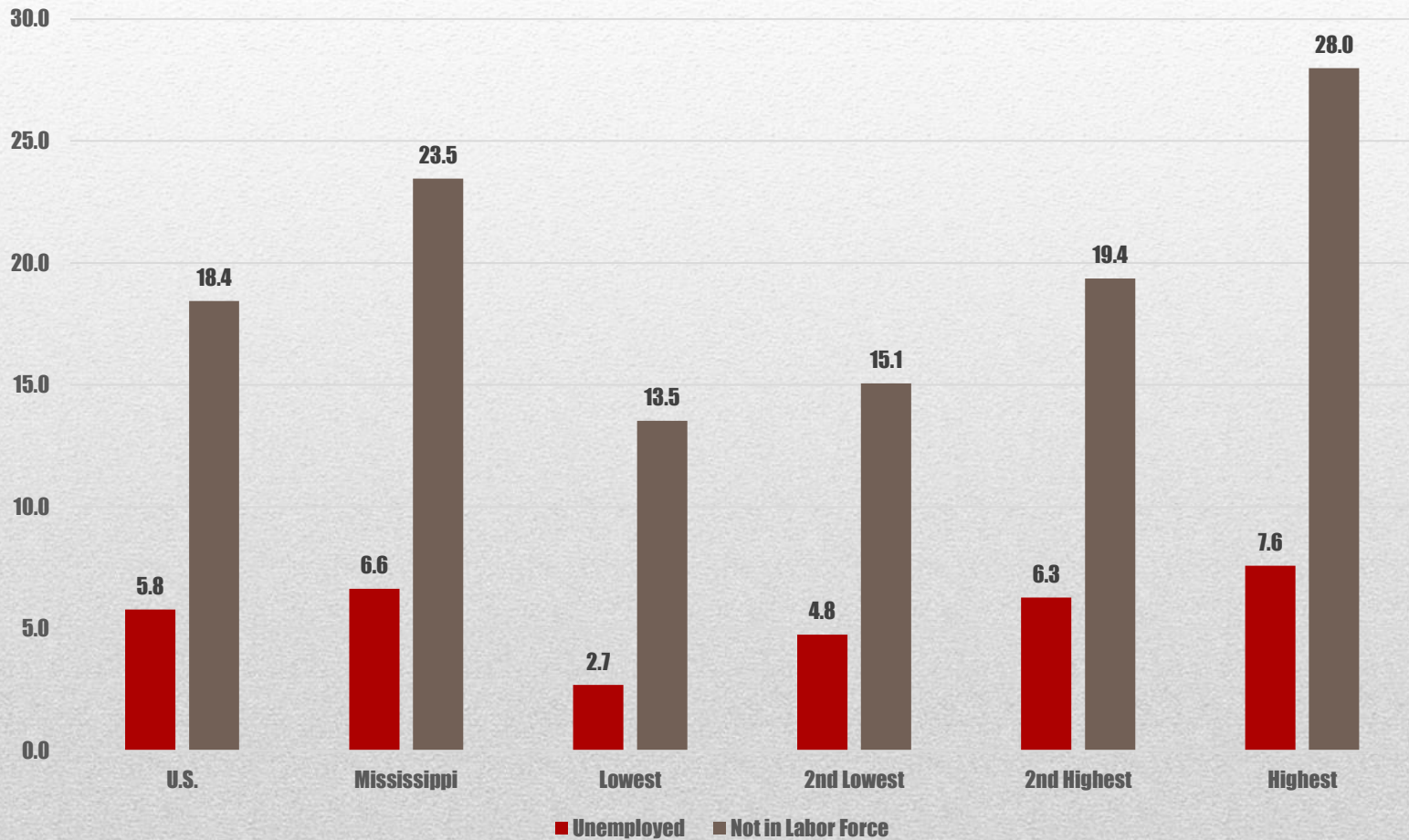
Percent 2010 Rural Population





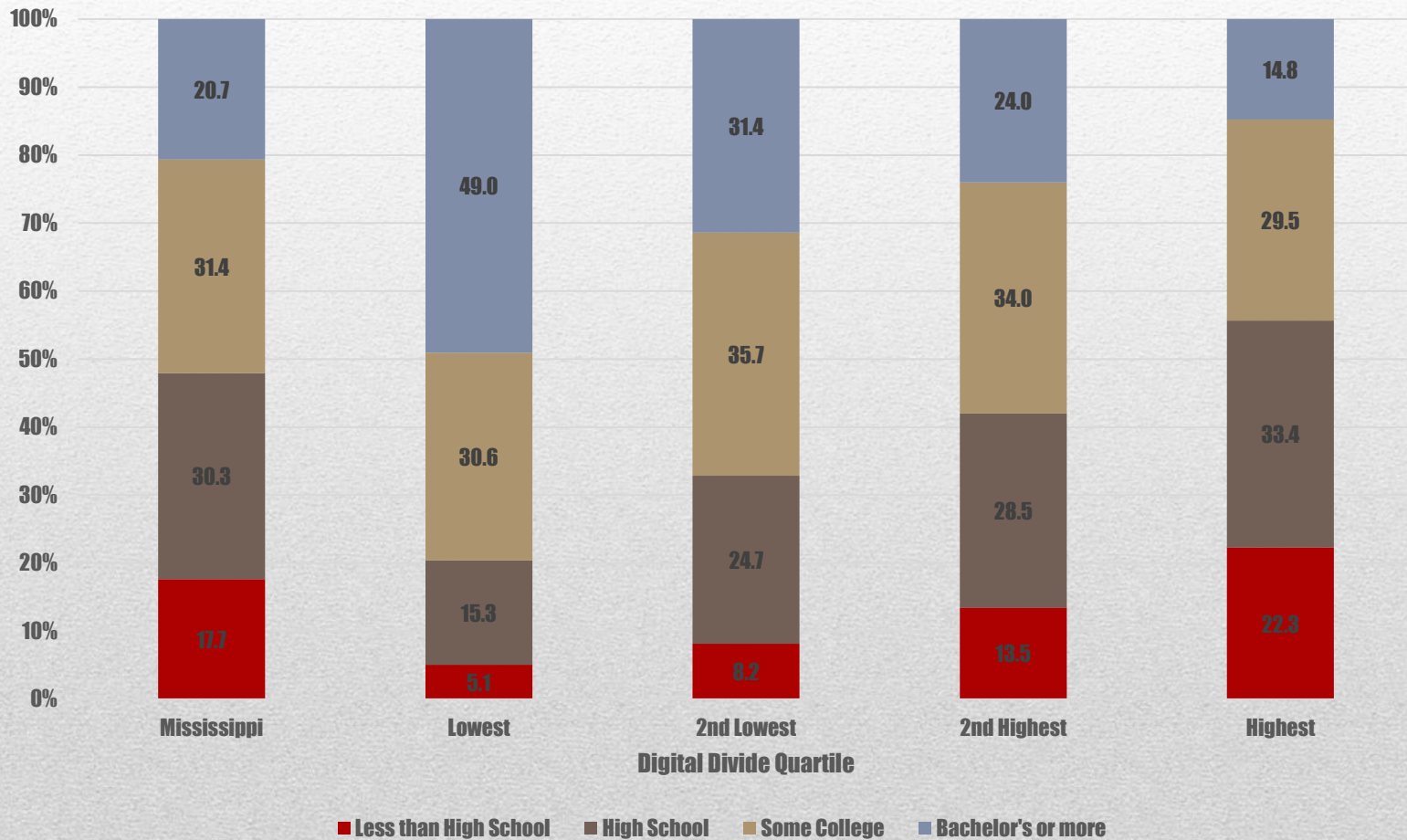
# DDI: Mississippi

Percent 2015 Population Ages 25-54 (Prime Working Age)



# DDI: Mississippi

## Percent Population 25 and over by Ed. Attainment 2015 Mississippi



# DDI: Mississippi

## Median Household Income & Poverty Rate 2015 Mississippi

