

Dispatches from Alternate Futures: Exploratory Scenarios for Greater Philadelphia is the result of the second exploratory scenario for the Greater Philadelphia region and is a key step in developing the *Connections 2050* Long-Range Plan for Greater Philadelphia. Policymakers and public- and private-sector leaders can use these scenarios and the forthcoming Long-Range Plan to make informed decisions that help guide the region toward more preferable outcomes consistent with the Plan's vision.

For *Connections 2050* products as the Plan is developed, please visit: [www.dvrpc.org/LongRangePlan](http://www.dvrpc.org/LongRangePlan)



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EXPLORATORY SCENARIOS FOR GREATER PHILADELPHIA

# DISPATCHES from ALTERNATE FUTURES

**DELAYED EXPECTATIONS**  
A world overcome by climate change and economic slowdown

**PEOPLE POWER**  
Grassroots movement to a more just and sustainable future

**TECHNOLOGY IN THE DRIVER'S SEAT**  
Big Tech takes control

**INCLUSIVE TECH**  
A new equitable economy emerges through open source technologies

IN THIS ISSUE

**COVID-19  
BREAKING NEWS**

See pages 26, 40, 54, and 68



JULY 2020

working  
**FUTURES GROUP**  
GREATER PHILADELPHIA



INCREMENTAL CHANGE

TRANSFORMATIVE CHANGE

## FOUR SCENARIOS

### CLIMATE CHANGE & EQUITY

POLITICAL  
WILL /  
COLLECTIVE  
ACTION

MARKET  
FORCES /  
INDIVIDUAL  
RESPONSIBILITY



**PEOPLE  
POWER**

Grassroots democracy gives citizens more input into the development of their communities and the economy, while readily available technologies are deployed to fight climate change.

The graphic features a hand holding a megaphone, with a circuit board pattern in the background, symbolizing grassroots technology and community action.

**INCLUSIVE  
TECH**

A collaborative, networked, open source economy of abundance emerges from societal efforts to make technological advances more sustainable and equitable.

The graphic includes icons for a Wi-Fi signal, a factory, a train, and a group of people, representing a networked and inclusive technological ecosystem.

**DELAYED  
EXPECTATIONS**

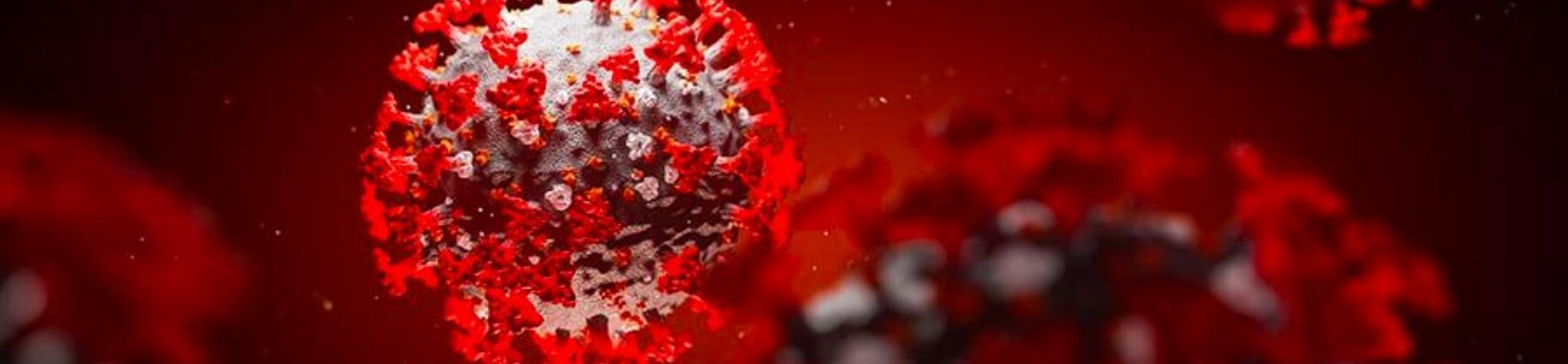
Climate change, sharp political swings, ongoing civil discord, and a slowdown in innovation lead to a lack of direction and economic stagnation.

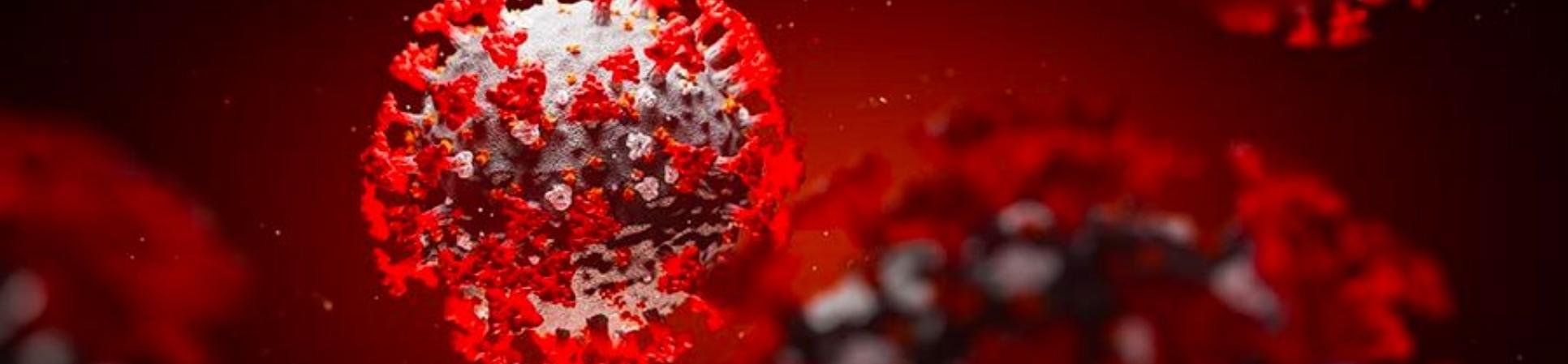
The graphic shows a stylized landscape with a tall, thin tower and a large, rounded mound, set against a purple and blue background, suggesting a state of stagnation or delay.

**TECHNOLOGY  
IN THE  
DRIVER'S SEAT**

Markets drive economic growth through Big Data, algorithms, and innovation.

The graphic depicts a group of people walking in a hallway, with a large, stylized orange and red shape resembling a steering wheel or a large 'C' shape, symbolizing market-driven technological control.





## DELAYED EXPECTATIONS

Climate change, sharp political swings, ongoing civil discord, and a slowdown in innovation lead to a lack of direction and economic stagnation.

December 13, 2027

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BREAKING NEWS  
**New Novel  
Coronavirus  
Raising Concerns  
about Another  
Global Pandemic**



## PEOPLE POWER

Grassroots democracy gives citizens more input into the development of their communities and the economy, while readily available technologies are deployed to fight climate change.

March 13, 2024

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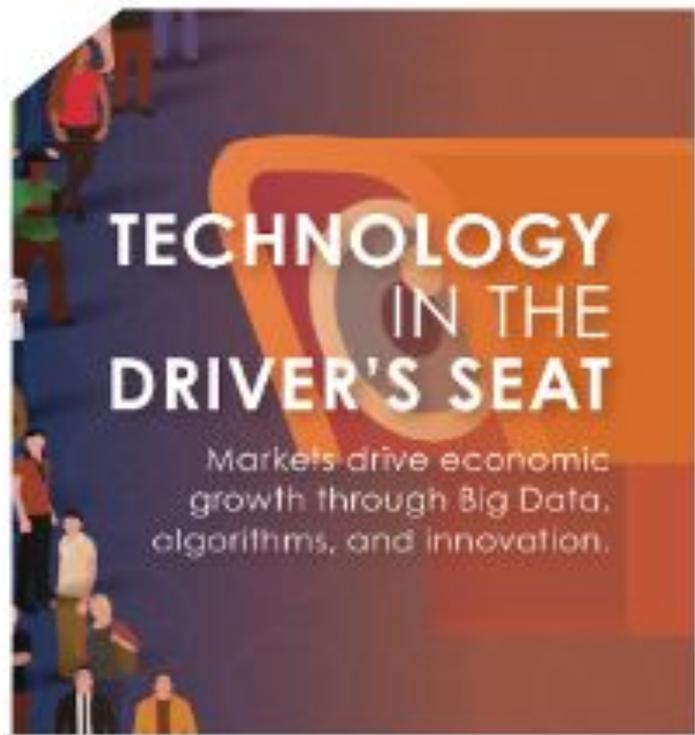
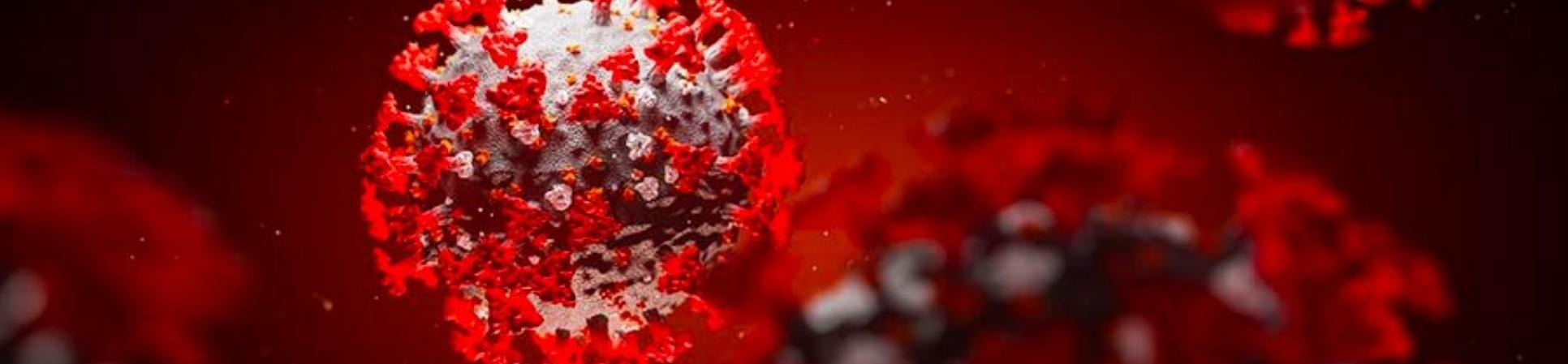
BREAKING NEWS

**COVID-19**

**Response Last**

**Straw; Universal**

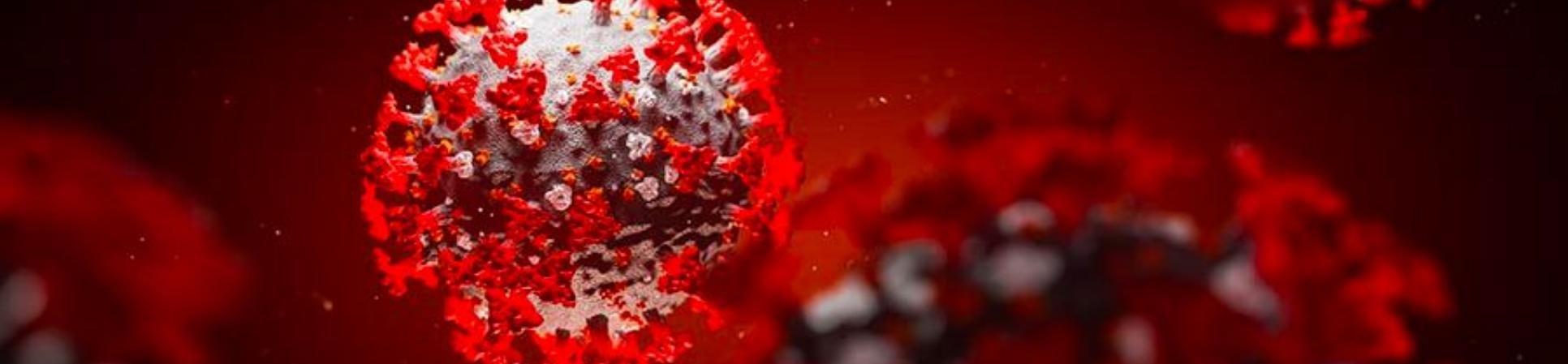
**Healthcare Now**



September 17, 2022

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BREAKING NEWS  
**COVID-19 Resurges  
Again, Despite  
Vaccine**



March 8, 2023

BREAKING NEWS

**In Ode to Inventor  
of Polio Vaccine,  
Biotech Foundation  
Renounces  
COVID-19 Vaccine  
Patent**

# Future-proofing transportation against infections

**Pranay Sinha, MD**

Assistant Professor

Section of Infectious  
Diseases

Boston University  
School of Medicine

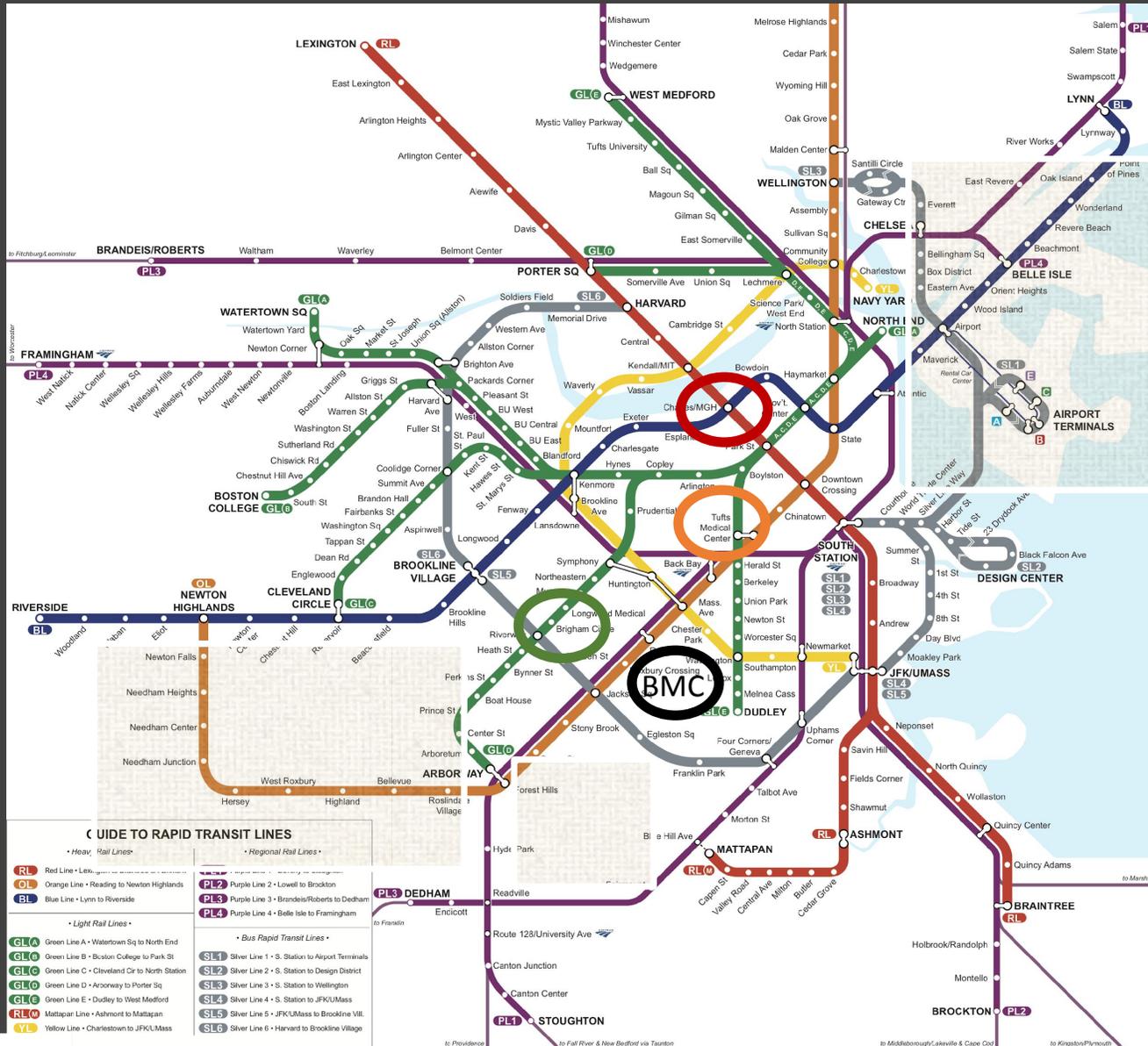
# Disclosures

- **No financial disclosures**
- **Poor knowledge of Philadelphia**

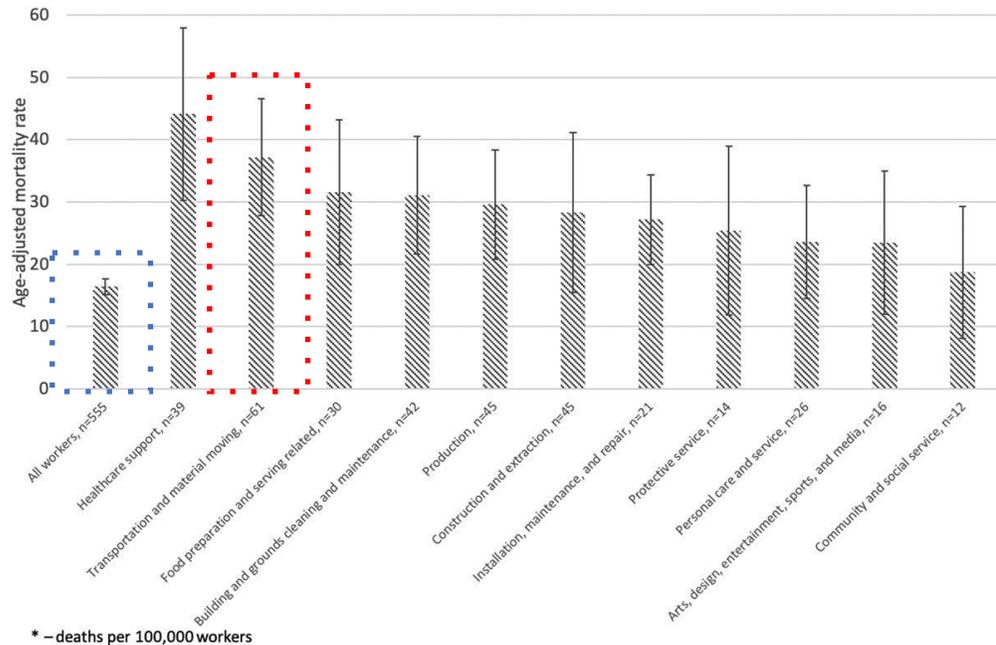
# Overview of thoughts

- Connecting medical centers to vulnerable communities
- Prioritize transit and supply chain workers for vaccination
- Maintain strategic stockpiles of masks/cleaning equipment
- Avoid hygiene theater
- Predicate our mitigation strategies on prevailing pathogen levels
- Clean the air we breathe in shared spaces

# Connecting vulnerable communities to Boston Medical Center

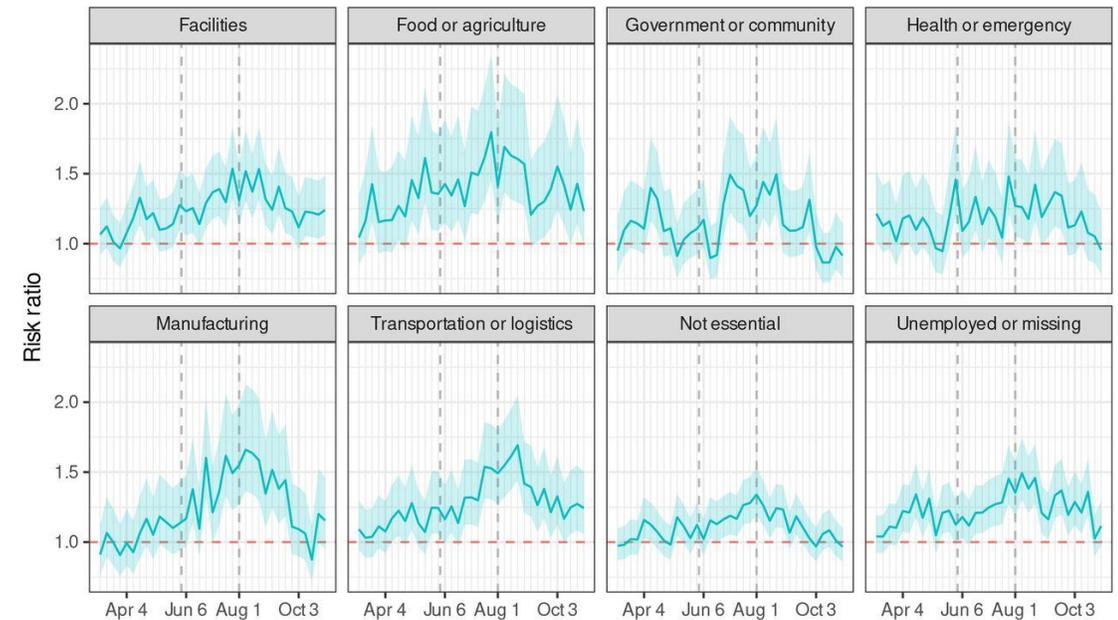


# Prioritize transit and supply chain workers for vaccination



Age-adjusted COVID-19 mortality rates among workers of age 18–64 by occupation groups with elevated rates; Massachusetts, March 1–July 31, 2020

Hawkins et al. *Am J Ind Med.* 2021; 64(4): 238- 244.



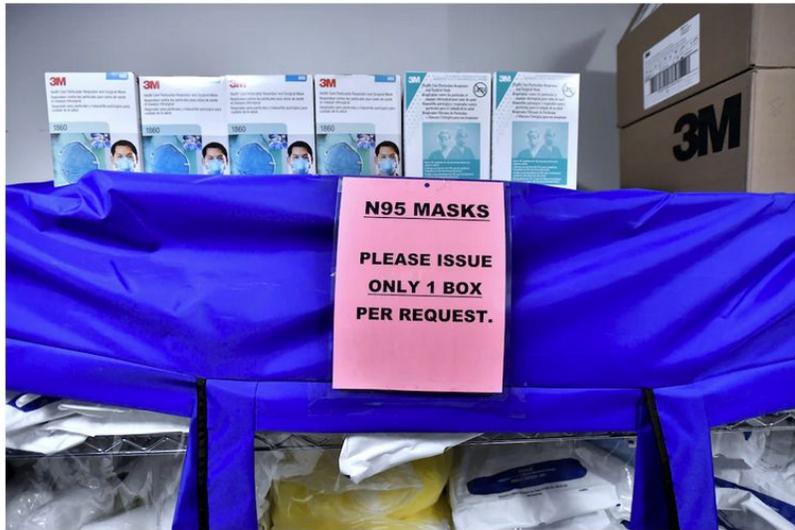
Risk ratios for death, comparing pandemic time to non-pandemic time, among Californians 18–65 years of age, by occupational sector, March through October 2020.

Chen et al. *Occup Environ Health.* 2021; 33:100736.

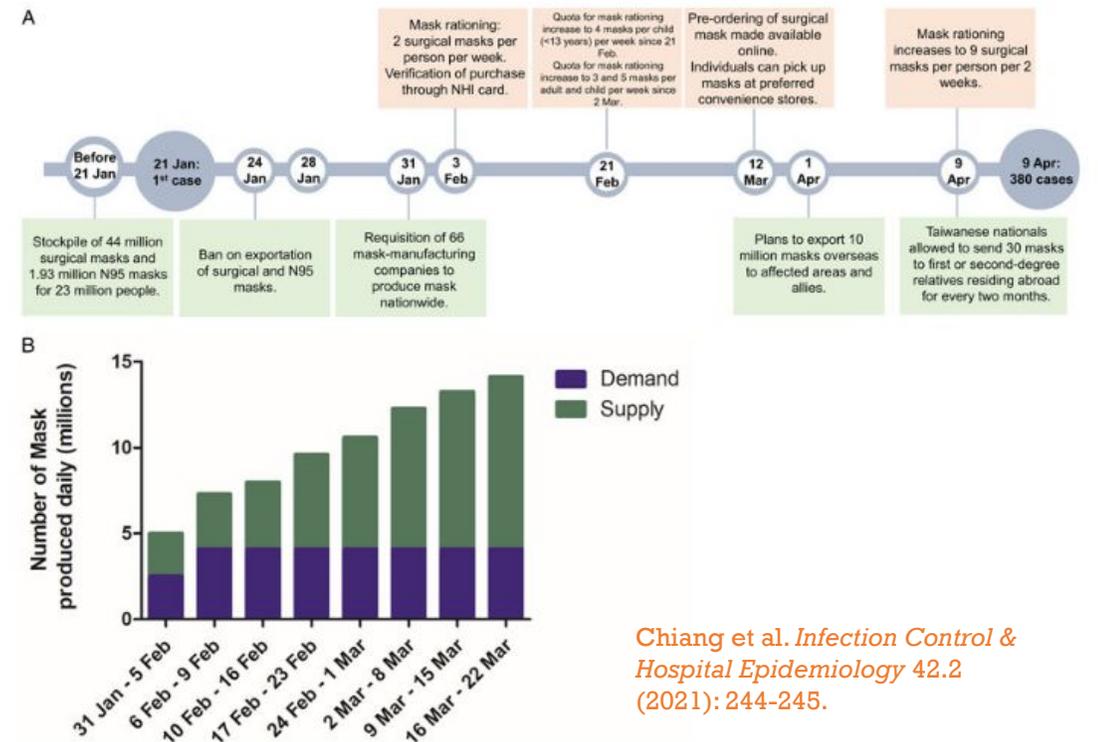
# Maintain stockpiles

## Face masks in national stockpile have not been substantially replenished since 2009

By Beth Reinhard and Emma Brown  
March 10, 2020 at 4:57 p.m. EDT

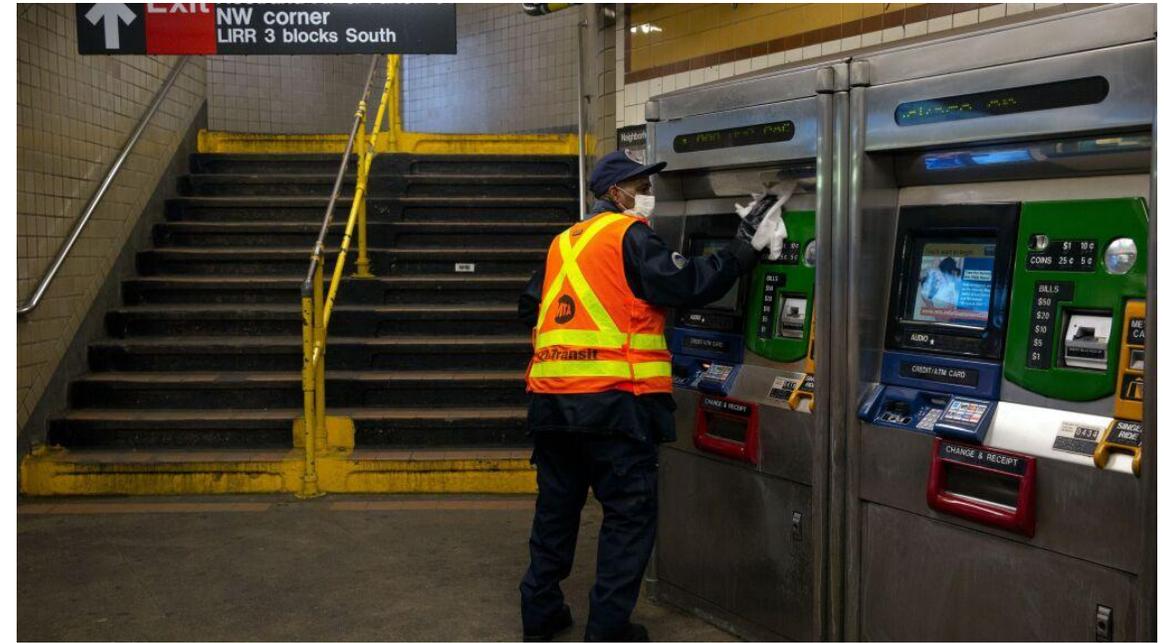


To help conserve supply of respirators, Massachusetts General Hospital moved stock into a separate, closed supply room. (Josh

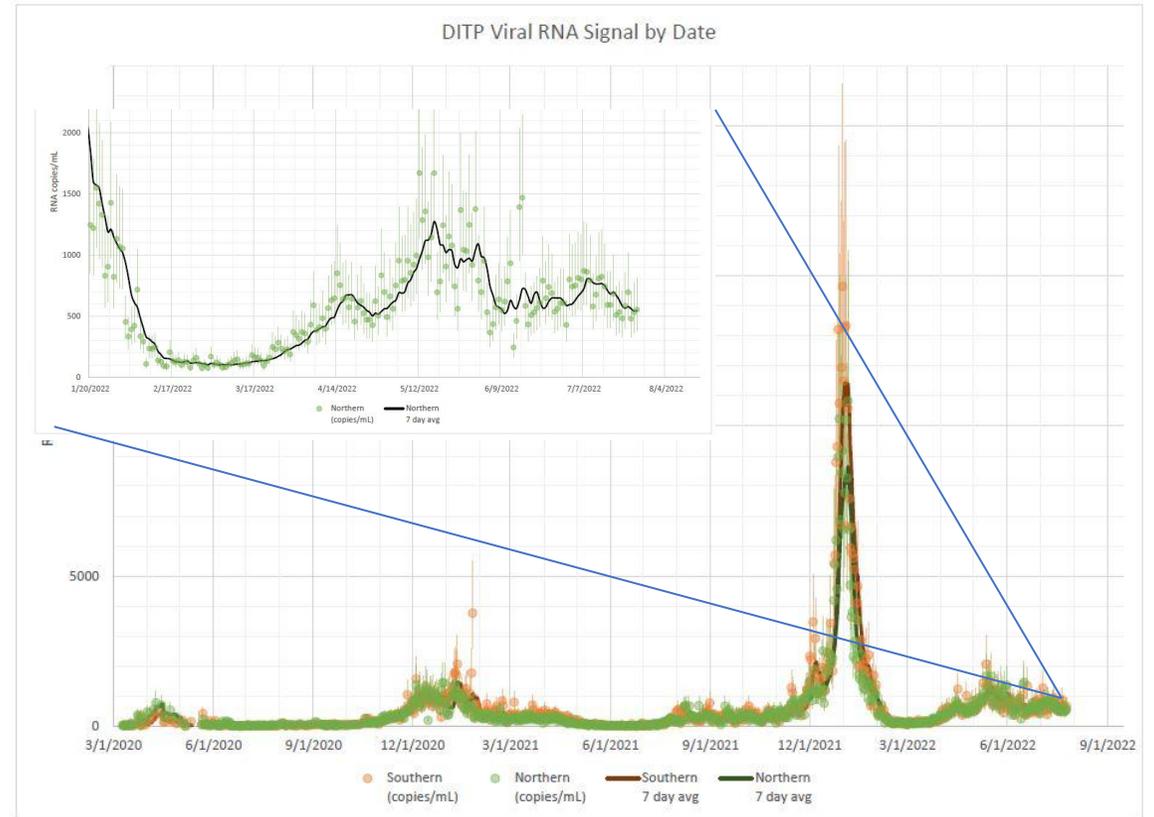
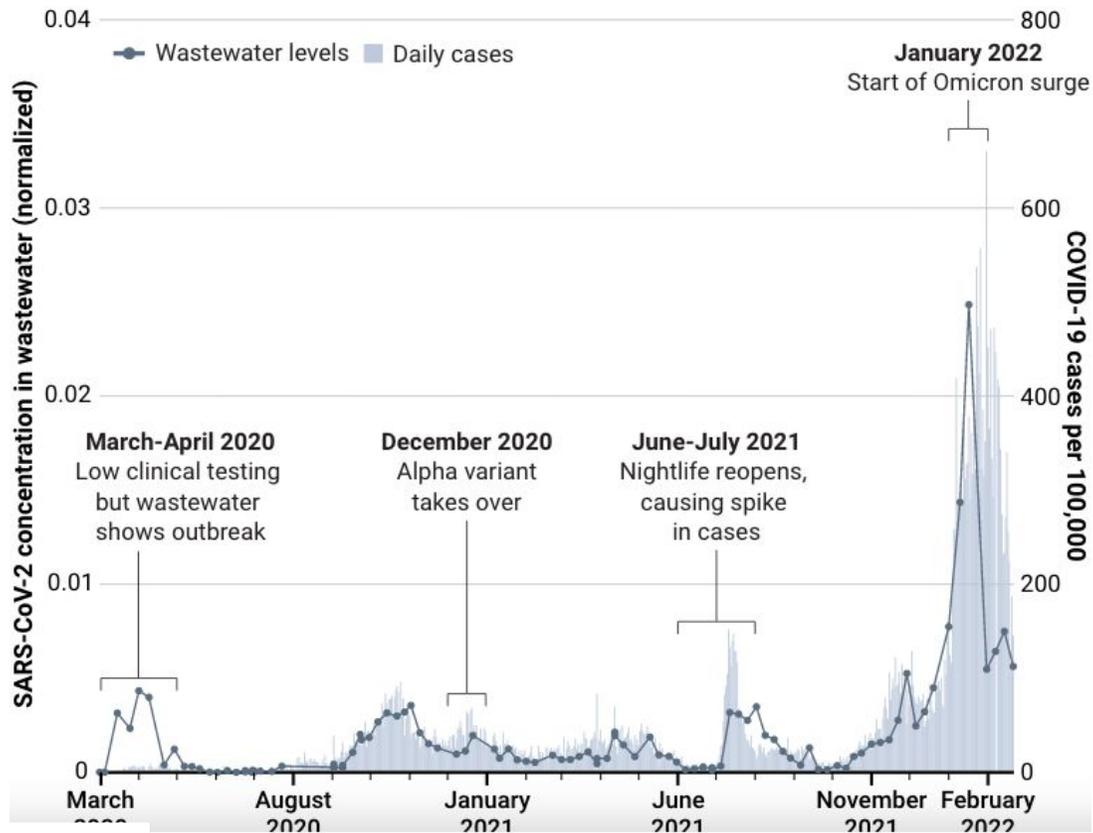


Chiang et al. *Infection Control & Hospital Epidemiology* 42.2 (2021): 244-245.

# Avoid Hygiene Theater



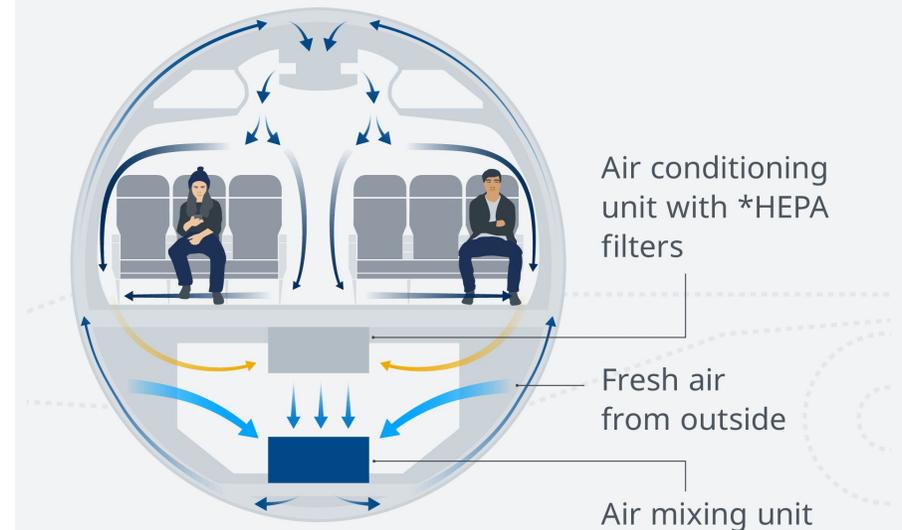
# Circuit breakers



# Cleaning the air we breathe shared spaces



## How air circulation works on a plane



Source: IATA; \*High-Efficiency Particulate Air

# Overview of thoughts

- Connecting medical centers to vulnerable communities
- Prioritize transit and supply chain workers for vaccination
- Maintain strategic stockpiles of masks/cleaning equipment
- Avoid hygiene theater
- Predicate our mitigation strategies on prevailing pathogen levels
- Clean the air we breathe in shared spaces

Thank you!

[psinha@bu.edu](mailto:psinha@bu.edu)

Pranay\_MD (on twitter)

# **Futures Group**

## Why I'm Bullish on Retail



**DVRPC**  
July 18, 2022

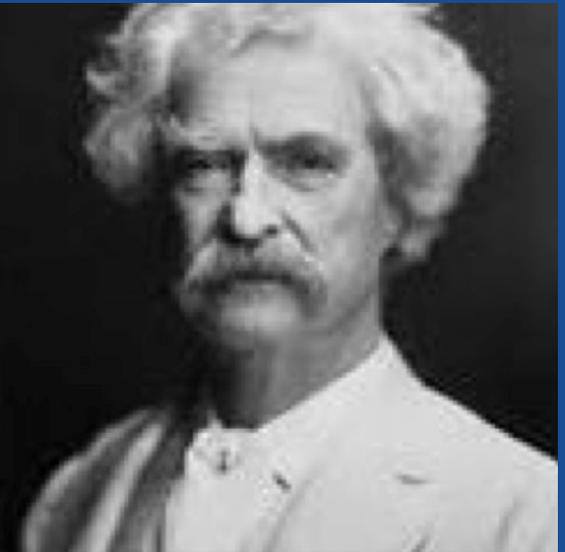
**Michael Berne**  
MJB Consulting

# Today's False Narratives

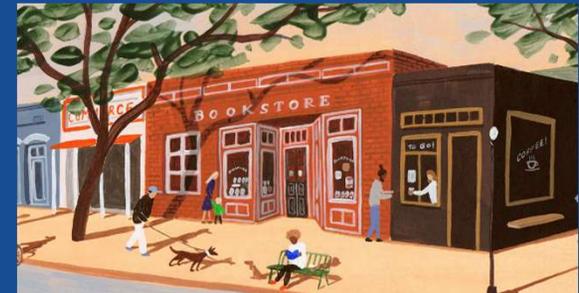
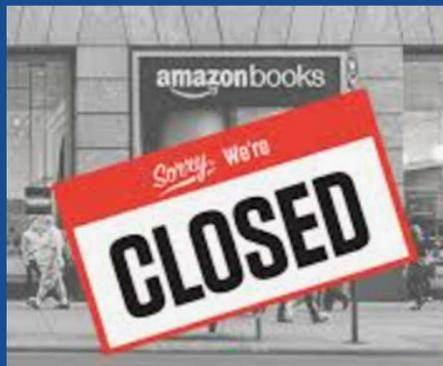
- Separating the signal, from the noise

It ain't what you don't know  
that gets you into trouble. It's  
what you know for sure that  
just ain't so.

*Mark Twain*



# No Such Thing as a New Normal



Barnes & Noble Returning to Downtown Walnut Creek

— FEBRUARY 3, 2022 8:30 AM —

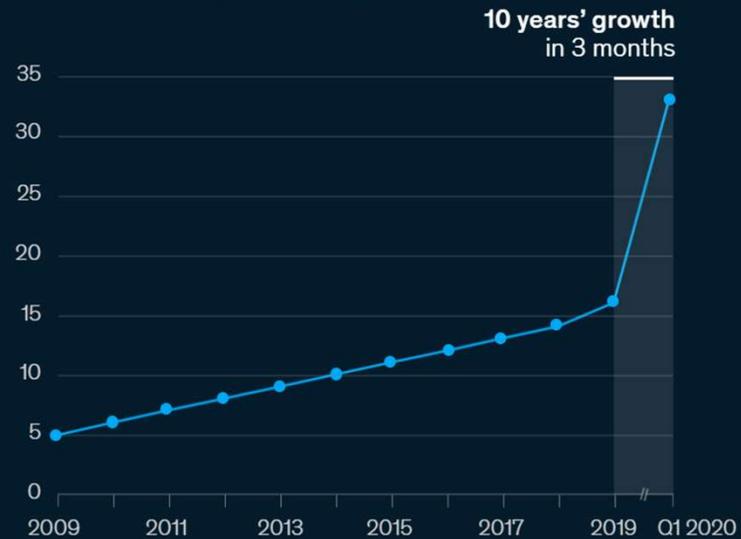
# No Such Thing as a New Normal

- Why do we listen to these people anymore?

## The leap

How fast is the world moving around us? Consider how quickly e-commerce has replaced physical channels in three months.

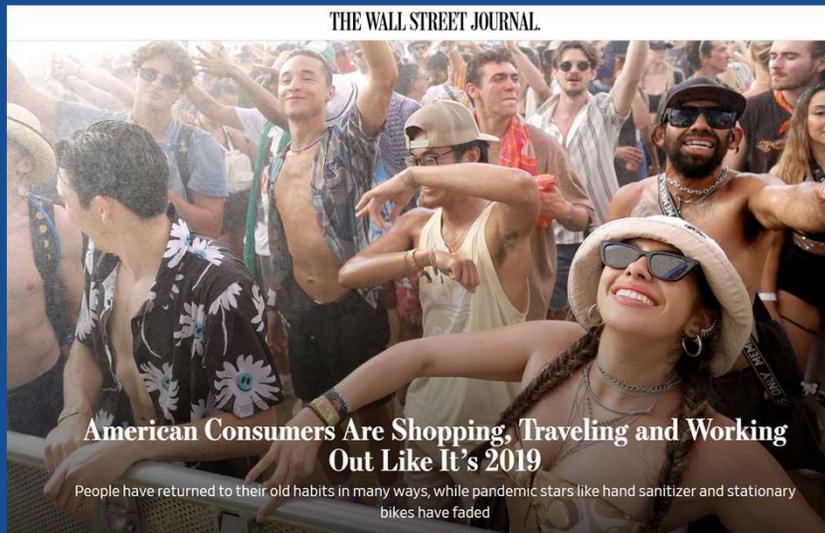
US e-commerce penetration, %



Source: Bank of America; Forrester Analytics; ShawSpring Research; US Department of Commerce; McKinsey analysis

# Bullish on Brick and Mortar

- Ceiling to consumer demand
  - Revealed by the pandemic



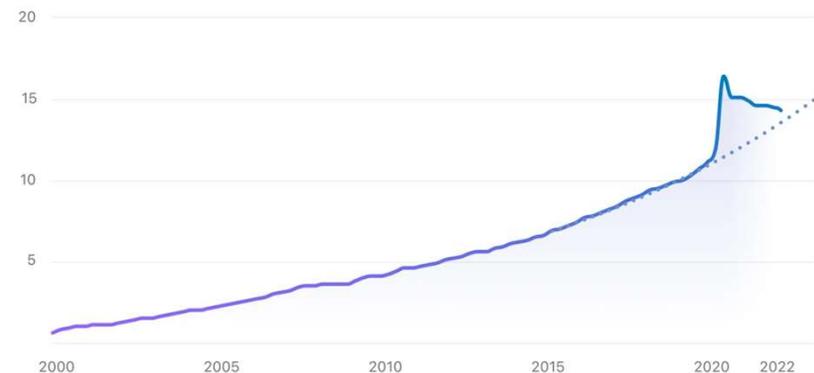
BUSINESS

## The Pandemic Was Supposed to Push All Shopping Online. It Didn't.

E-commerce retailers that rode a surge of online purchases in 2020 are now grappling with the fact that some customers have returned to stores

### US ecommerce adoption growth rate

% OF ADDRESSABLE RETAIL



Source: US Census Bureau

# Bullish on Brick and Mortar

- Physical stores in the ecosystem
  - Sales origination versus fulfillment
  - Transactions versus discovery
    - “Sport shopping”

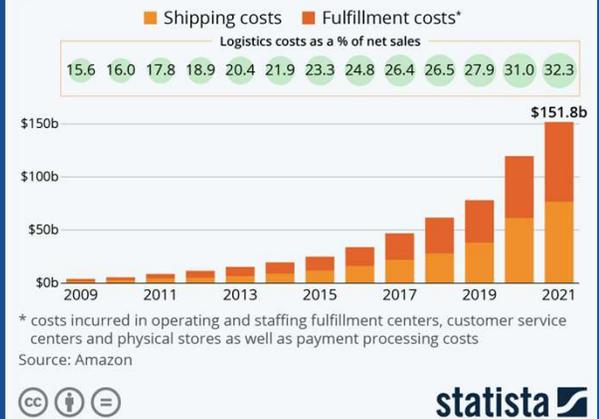


# Bullish on Brick and Mortar

- Costs of online selling
  - Retailers cannot make money *without stores*

## Amazon's Escalating Logistics Costs

Amazon's fulfillment and shipping costs in total and as a percentage of net sales



MarketWatch Latest Watchlist Markets Investing Personal Finance Economy Retirement How to Invest

Home > Industries > Retail/Wholesale > Opinion

Outside the Box

### Opinion: Retailers' future still includes the store — and both Children's Place and Wayfair don't understand that

Last Updated: Aug. 21, 2021 at 8:48 p.m. ET  
First Published: Aug. 18, 2021 at 10:13 a.m. ET

By Michael J. Berne

Closing lots of stores and doubling down on digital is precisely the wrong thing to do



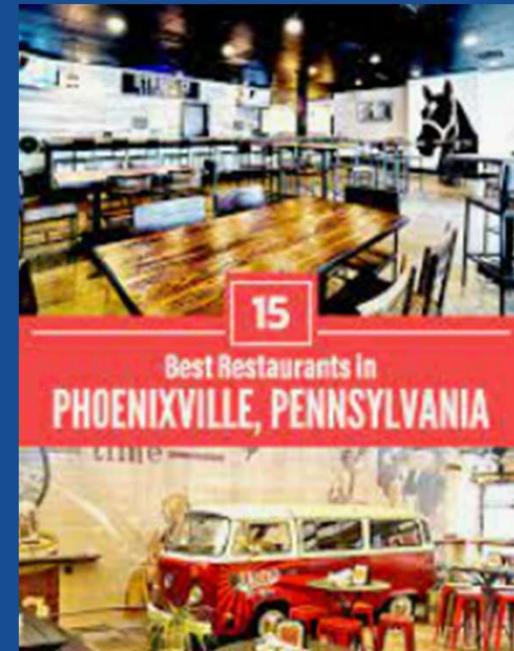
# Bullish on Brick and Mortar

- A “changing of the guard”, not a “retail apocalypse”
  - Self-inflicted wounds by legacy brands...
    - Leveraged buyouts
    - Stagnation
    - Overexpansion
  - Competition from better mousetraps
    - Value-oriented concepts



# Bullish on Downtowns

- They had finally figured it out...
  - Food, beverage and entertainment
  - Specialty shopping
  - Captive submarkets
    - Tourists, workers, *residents*
  - Patina and personality



# Bullish on Downtowns

- ... and that formula still holds
  - Well-positioned versus e-commerce
    - Commoditized retail more vulnerable



SAN FRANCISCO BUSINESS TIMES

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## Viewpoint: Retail's plight is being overstated

Nov 5, 2021, 5:00am PDT

I'm bullish on downtown and main street retail. There, I said it.

It's been a rough stretch for the industry, starting with the "retail apocalypse" narrative and now with this seemingly never-ending pandemic. But even if the nation's overall brick-and-mortar footprint is shrinking, different formats face different prospects: some are falling, others stable or rising.

Conventional shopping centers are more vulnerable to the rise of the online channel than downtowns. Indeed, longtime mall staples and once-impregnable category killers have comprised the primary victims these last several years. Consider the elevated vacancy levels at Bay Street and Hacienda Crossings, for instance.

Downtowns, meanwhile, have already spent decades trying to adapt to the disruption of their original model and finally happened upon a winning formula in the 1990s that focused on food, beverage and entertainment; small-scale operators; texture and place-making; "captive"

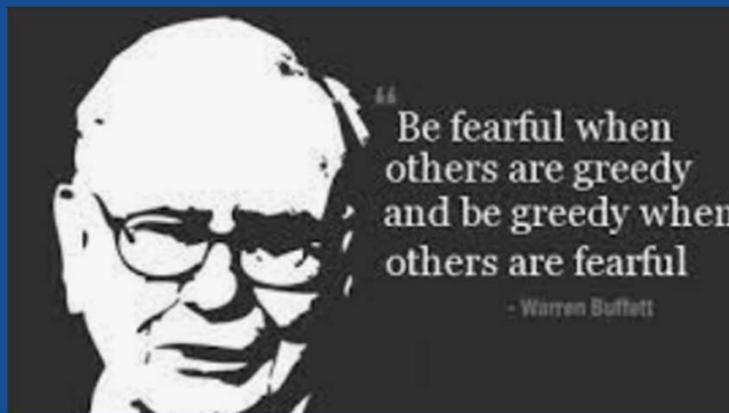


MICHAEL BERNE  
Michael Berne is president of MJB Consulting, a Berkeley- and New York City-based retail planning and real estate consultancy

# Two Very Difficult Years...

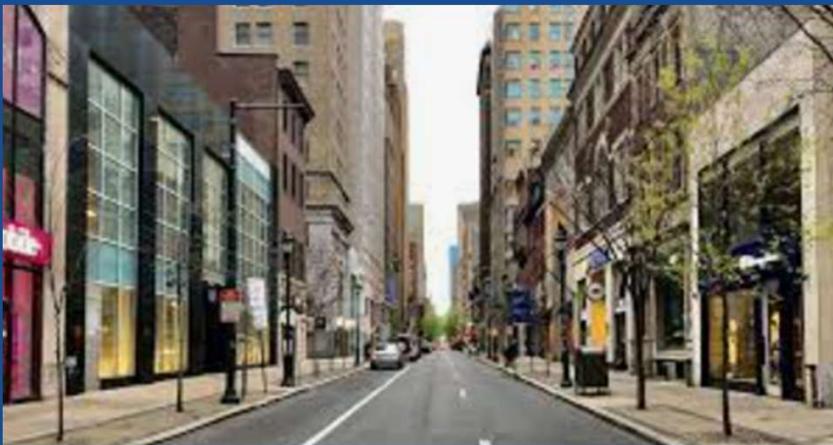
## Downtown/Main Street Retail

- ... yet *not* as dire as anticipated
  - (Still) expansion-minded brands
  - Merchant adaptability / resilience
  - Entrepreneurial energy
  - Public-space innovation
  - Government stimulus



# Two Very Difficult Years...

- Dense downtown settings hurt the most...
  - Social and experiential focus (food, beverage and entertainment)
  - Small businesses (specialty shopping)
  - Remote work (captive submarket)
  - International tourism / conventions (captive submarket)
  - Urban flight (captive submarket)



# Two Very Difficult Years...

- Popularity of destinations for *domestic* tourism
  - Growing numbers of year-round residents



## ***Regional Study Shows That New Hope Lived Up to Its Name During the Pandemic***



***By Dan Weckerly***

Published: 5:26 am EDT June 2, 2021 | Updated: 7:52 pm EDT June 1, 2021



# Two Very Difficult Years...

- Stability of residential populations
  - Consumers staying closer to home
    - Urban neighborhoods
    - Suburban downtowns
  - Could endure with remote work
    - Need for more “third places”



## Retail boom in Northern Liberties: Over a dozen new storefronts are coming to the neighborhood

Here's a look at what's on tap, from restaurants to cafes, bike shops, and art centers.



Northern Liberties' retail boom isn't only happening on North 2nd Street, but it's still the neighborhood's commercial center. ASHA PRIHAR / BILLY PENN

 Asha Prihar

Apr. 24, 2022, 8:00 a.m.

# Going Forward

- Acceleration of generational shift
  - Suburbanization of hip
    - Gen Z as the new urbanites
      - New concepts and iterations



# Going Forward...

- Flight to quality
  - Strong getting stronger...
    - Lure of co-tenancy / critical mass, “essential needs” anchors



**2022 Updated Findings**

**A little retail therapy goes a long way.**

As the number of retail uses, and retail's share of all uses, increased in a downtown, the pandemic's impact decreased.

Image Source: Getty Images.

**1** **2** **3**  
**4** **5** ● ● ●

**dvrpc** | Rethinking the ROW and Using Location Analytics to Plan for a Post-Pandemic Economic Recovery May 18, 2022



# Going Forward...

- Flight to quality
  - Roles in the retail ecology
  - Raises questions of equity
    - Scrutinizing the narratives

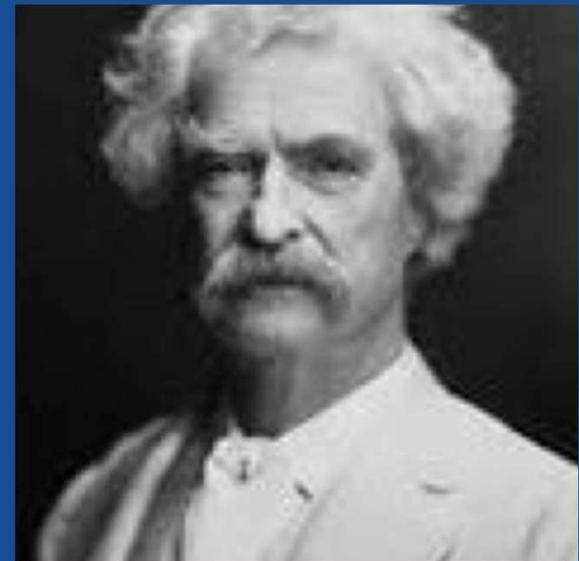


More Black-owned businesses survived Philly's lockdown than researchers expected

Miles Bryan/WHYY Mar 15, 2021  0

# Going Forward...

- Inflation and recession...
  - Possible pullbacks
    - Discretionary spending and apparel
    - Housing market and home retailers
    - VC funding and “clicks-to-bricks” brands
  - The future of remote work
- ... but again, Mark Twain



# Contact Info

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“Retail Contrarian Blog” | <https://www.linkedin.com/in/michael-berne-9179442/detail/recent-activity/shares/>



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# The COVID-19 Pandemic: Exacerbating Inequalities

Mike Shields

Research Director

Economy League of Greater Philadelphia

# We Know the Story

The New York Times

## *'It's a Wreck': 3.3 Million File Unemployment Claims as Economy Comes Apart*

The weekly figure is among the first data on the economic toll of the vast disruption of normal life and commerce caused by the coronavirus pandemic.

**Economic  
Policy  
Institute**

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**Black workers face two of the most lethal preexisting conditions for coronavirus—racism and economic inequality**

The Philadelphia Inquirer

Coronavirus

## **Layoffs vs. furloughs: What's the difference and what does it mean for unemployment benefits in Pa.?**

Whether you're furloughed or laid off, you're likely eligible for unemployment. So in a lot of ways, for workers, there's no difference in how the two different statuses affect your ability to get unemployment benefits.



Pew Research Center

## **Coronavirus Economic Downturn Has Hit Latinos Especially Hard**

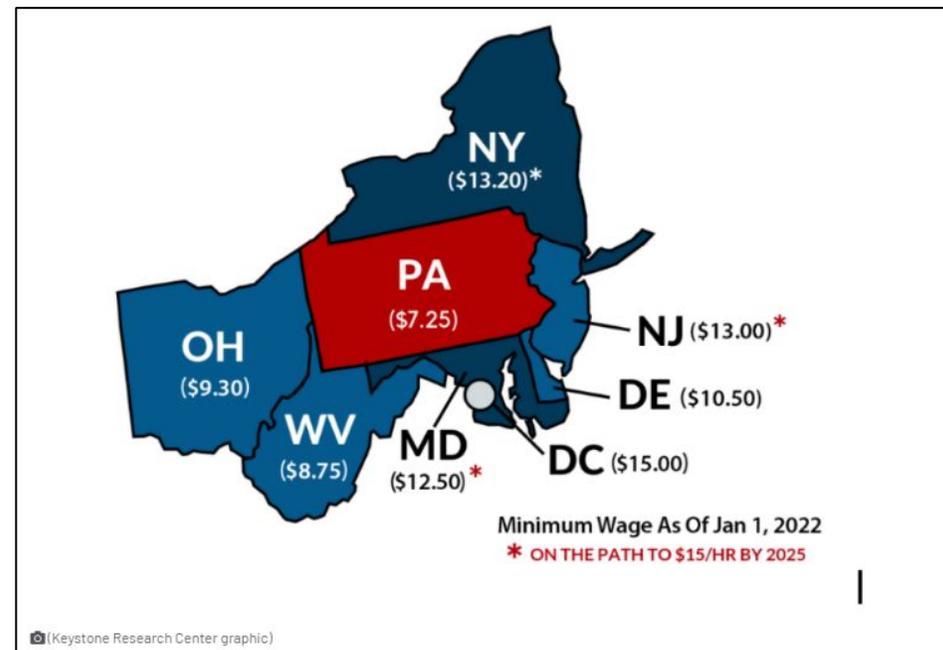
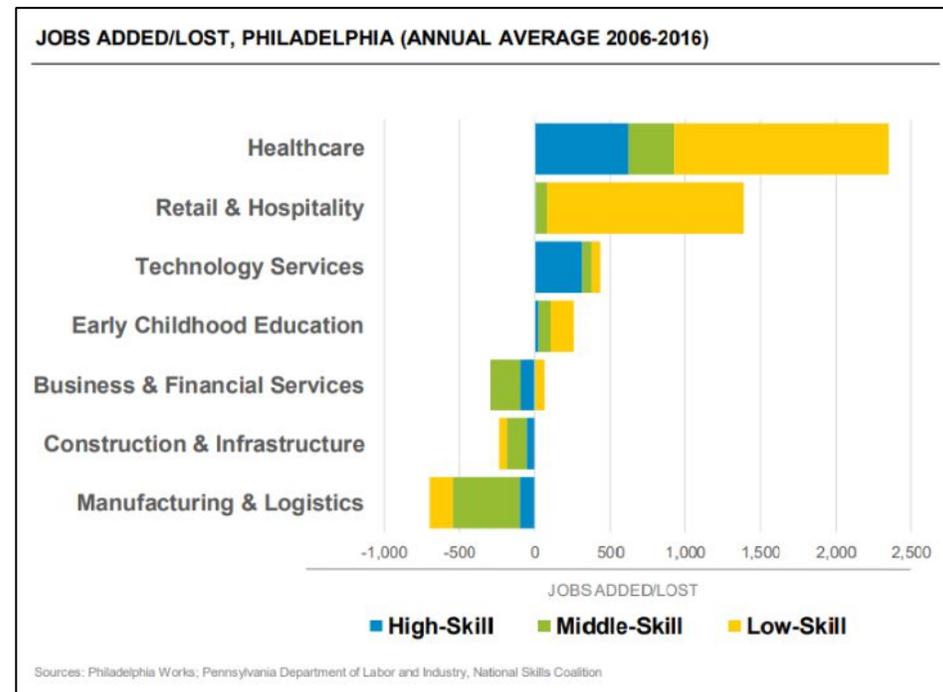
*Even before the pandemic, Hispanics said they felt downbeat about their finances*

**Vox**

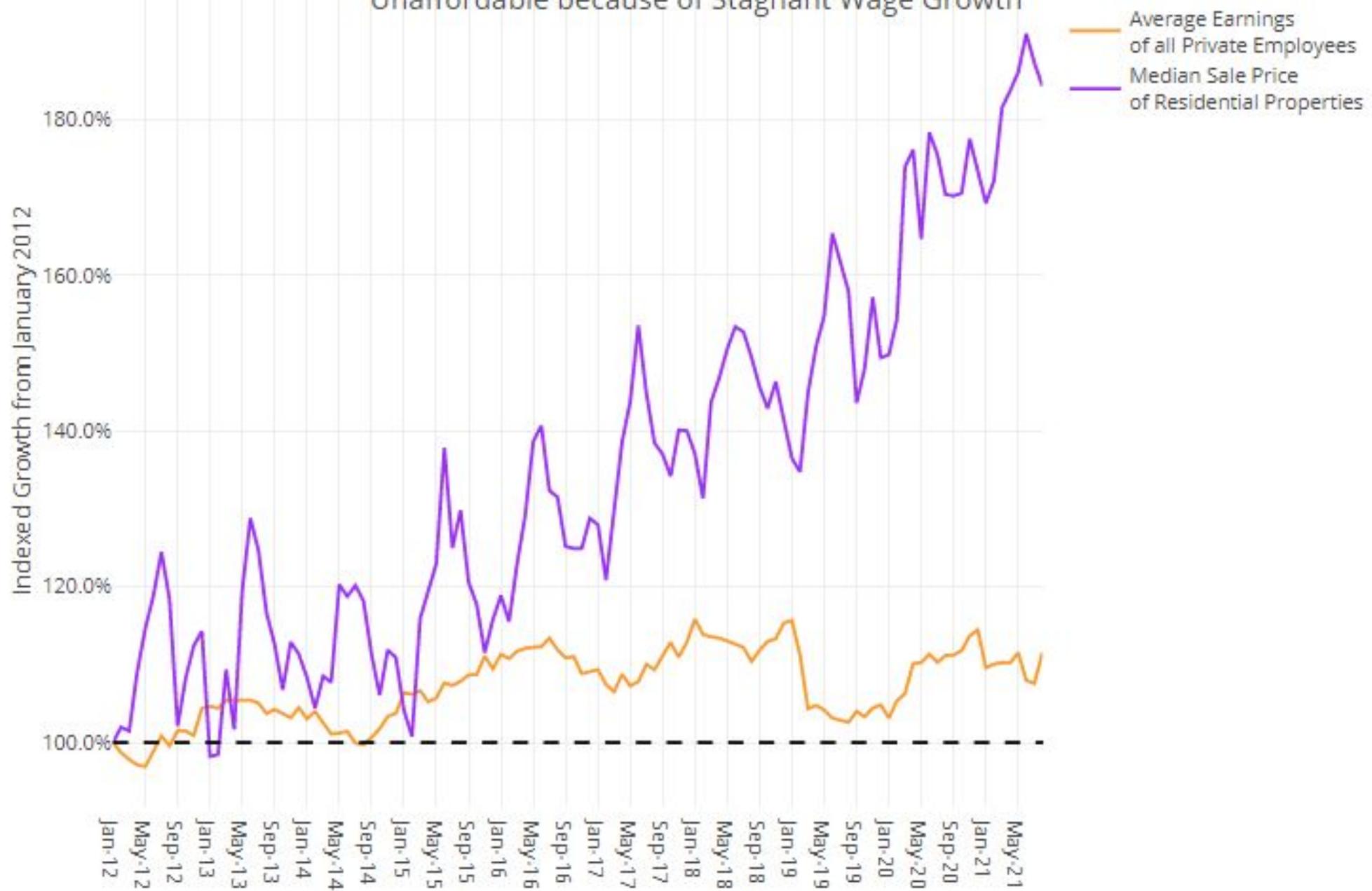
**Public transit in the US is already underfunded. The pandemic has made it worse.**

# We Built the Pre-COVID Economy on Shifting Sands

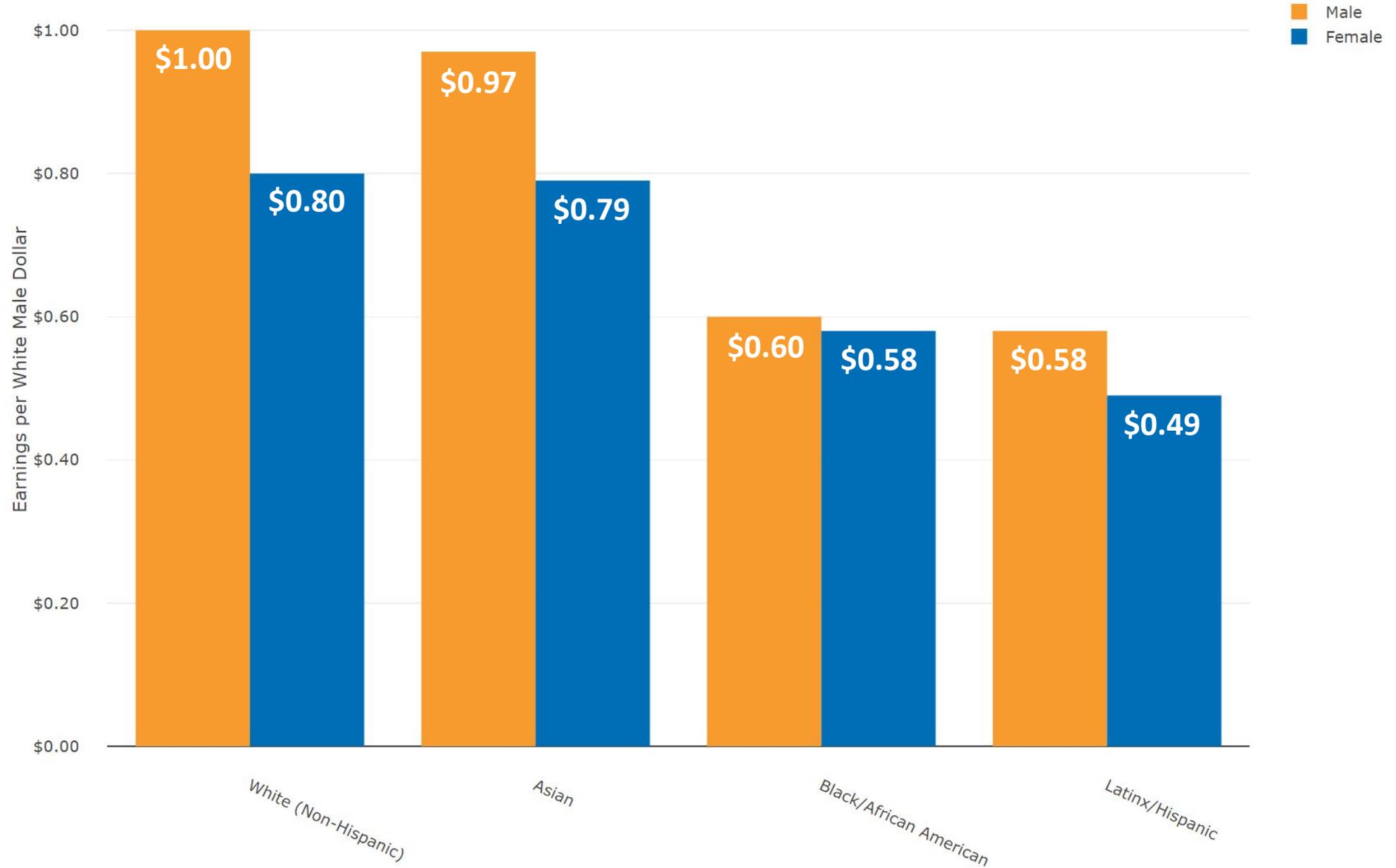
- Employment increased since the Great Recession, but it was largely in foundational-skill, low-wage jobs.
- Our region suffers from stagnant wage growth
  - Minimum wage has remained at \$7.25 since 2009 (\$15,080 a year)



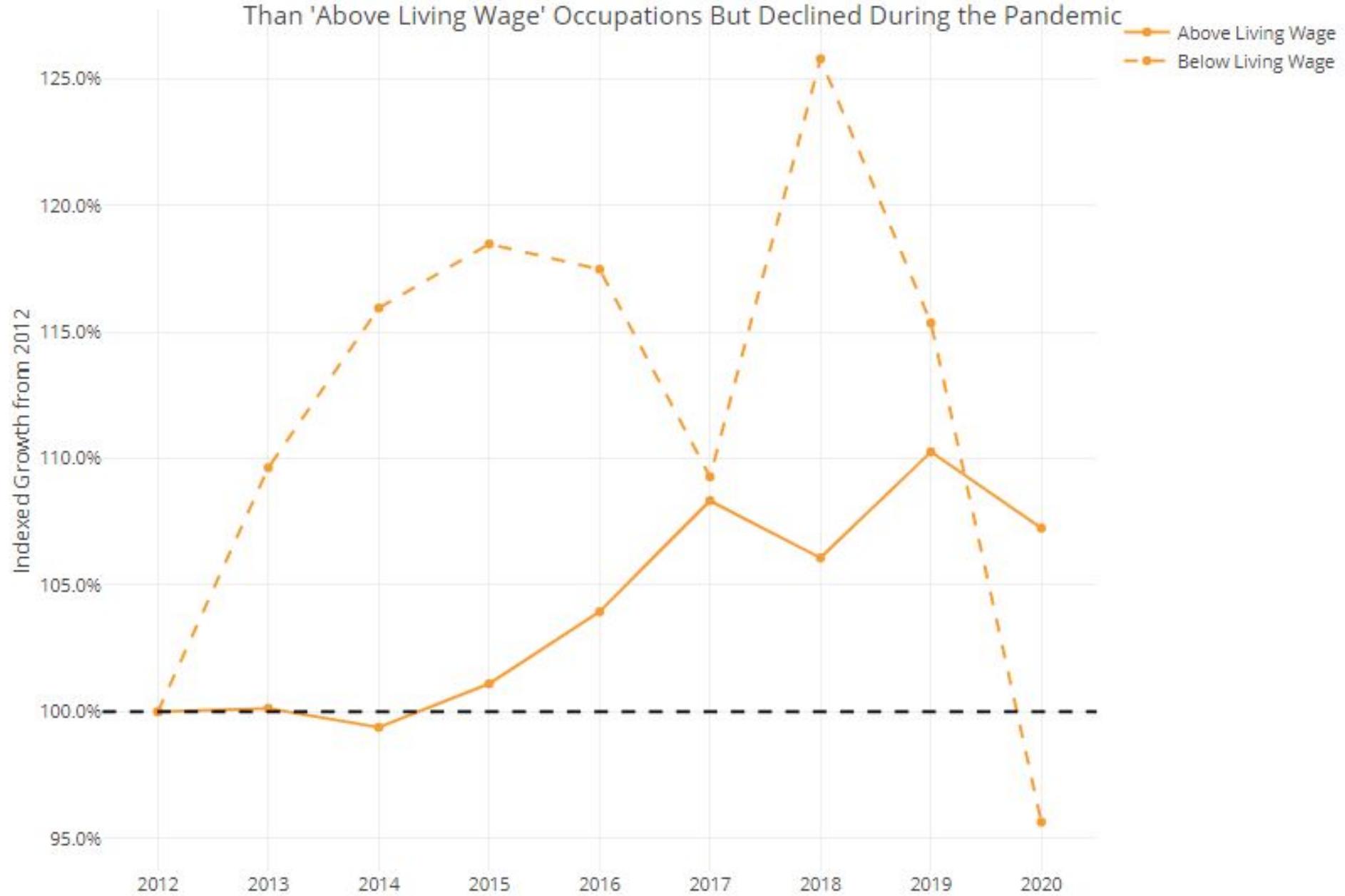
# Home Prices in Greater Philadelphia Are Becoming More Unaffordable because of Stagnant Wage Growth



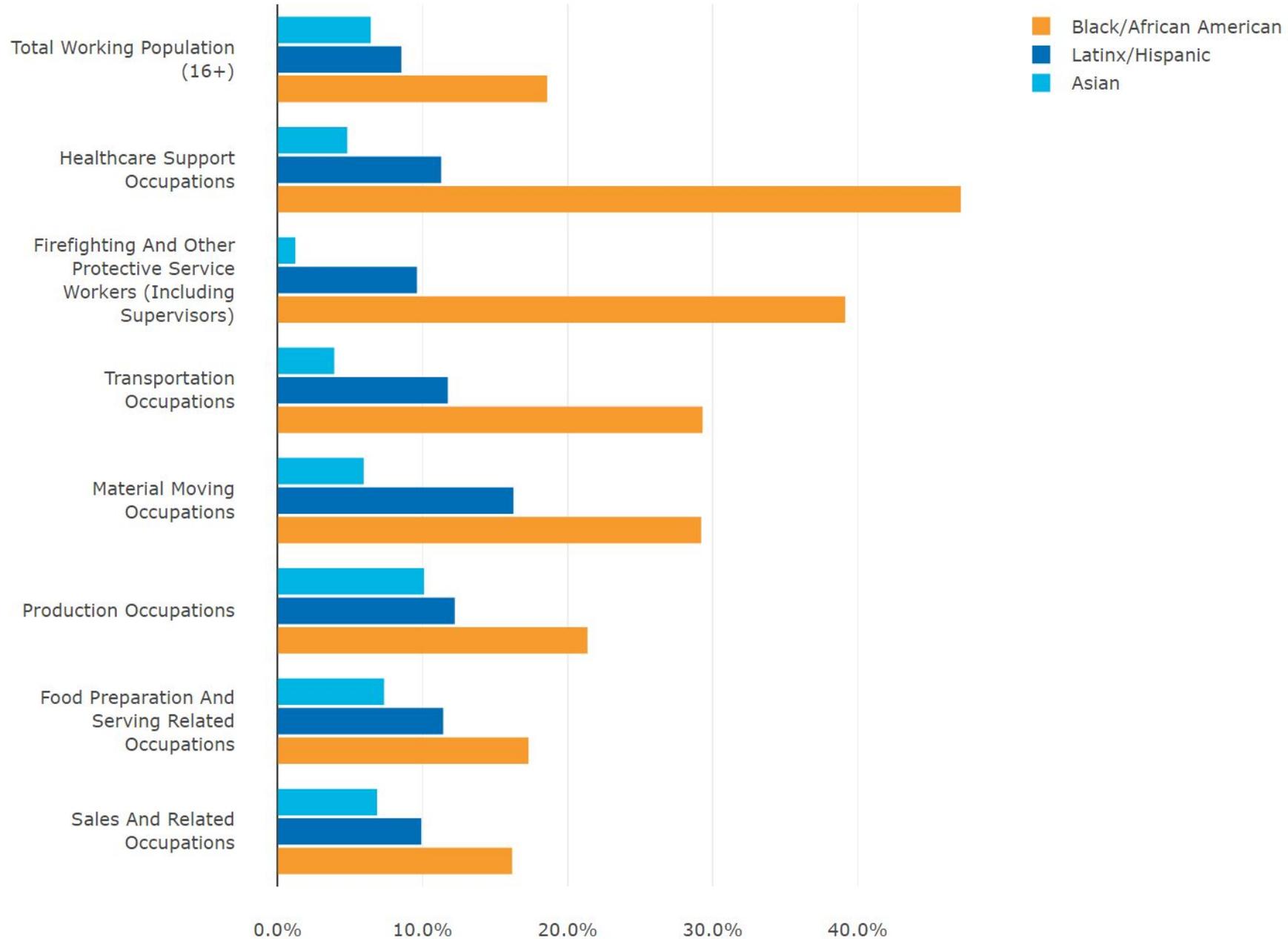
# Greater Philadelphia's Full-Time, Year-Round Workers' Earnings as a Proportion of Non-Hispanic White Male Earnings in 2019



Greater Philadelphia's 'Below Living Wage' Occupations have Grown Faster Than 'Above Living Wage' Occupations But Declined During the Pandemic



# Industry Employment Concentrations by Race and Ethnicity in Greater Philadelphia (2019)



# We're in "Reactionary Mode"

- Instituting relief programs and policies
  - PPP, Child Tax Credit, Restaurant Revitalization Fund, etc.
- Continuing to bump up against prejudices embedded in our decision-making practices and institutions



## Payroll Protection Program

A flexible loan helps keep your workforce employed. >

[Learn more about PPP](#)



## EIDL

### COVID-19 EIDL

This low-interest loan provides help to businesses experiencing revenue loss. >

[Learn more about COVID-19 EIDL](#)



### Shuttered Venues Grant

This grant supports eligible venues affected by COVID-19. >

[Learn more about SVOG](#)



### Restaurant Revitalization Fund

Funding for eligible restaurants, bars, and other food service businesses. >

[Learn more about RRF](#)



### SBA debt relief

We will make loan payments for some existing SBA borrowers. >

[Learn more about debt relief](#)



### Preventing ID theft and fraud

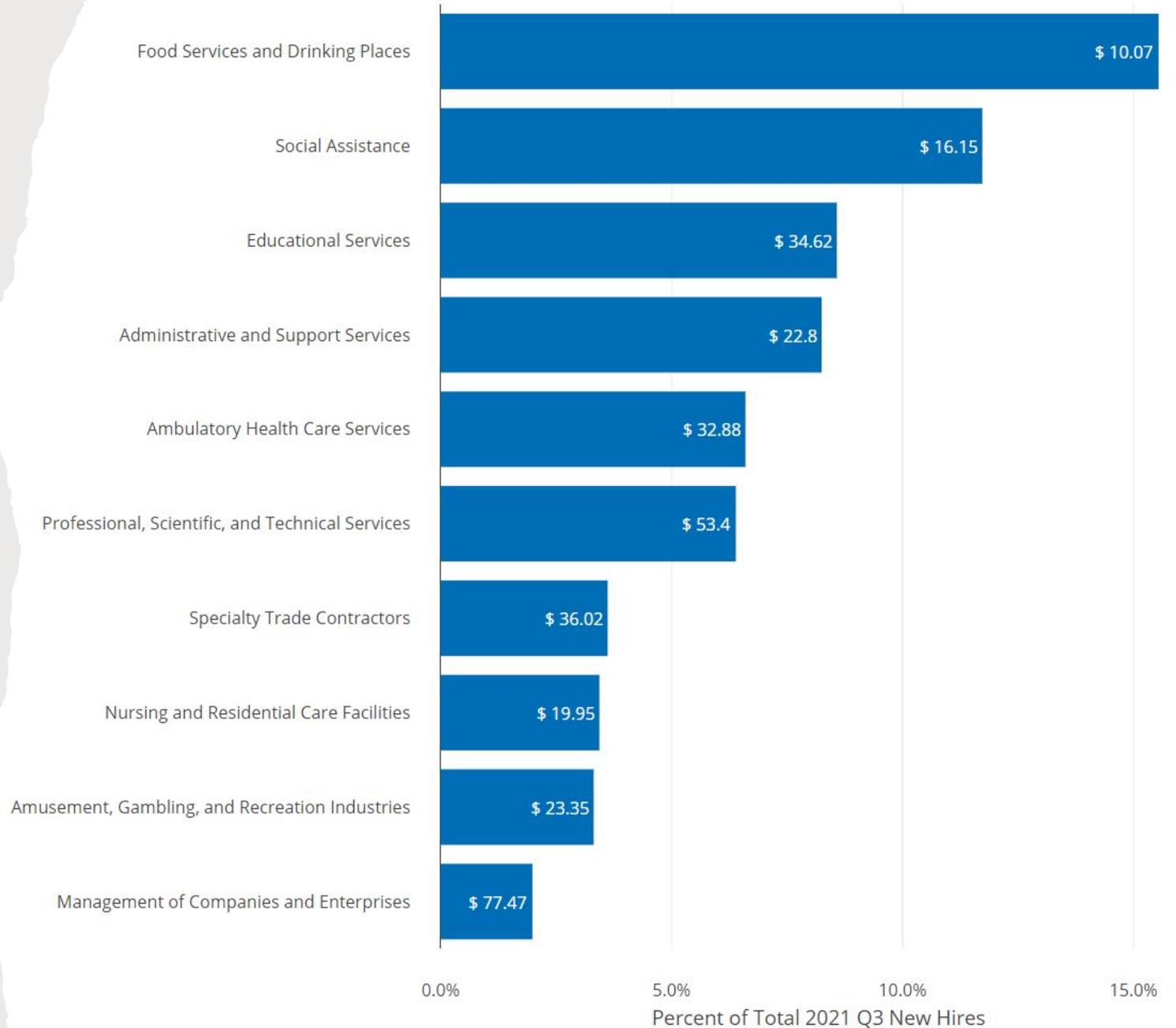
Learn how businesses can work together to prevent and report suspected fraud >

[Learn to protect yourself](#)

# Navigating the Ongoing Externalities

- Re-filling older foundational-skill employment
  - Greater need among low-wage positions
- Higher wages for some positions and sectors
  - Inflation largely wiped many of those gains

The Largest Share of New Hires in Greater Philadelphia Come from Industries with Lower Average Wages



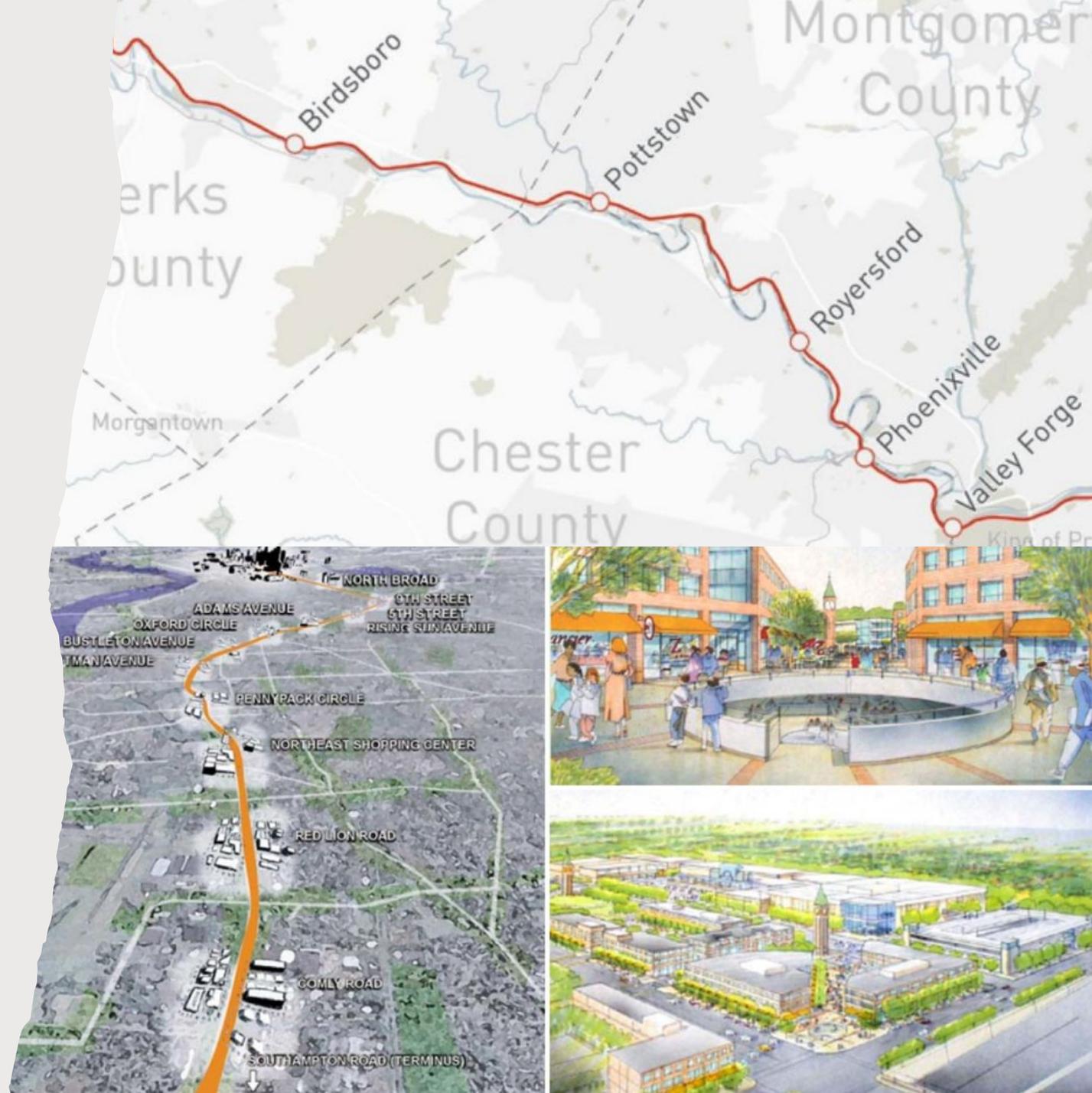
# Navigating the Ongoing Externalities



- Remote/hybrid work decreasing municipal revenue/social services
  - Higher risk for retail, food, and accommodation businesses
  - Underfunded public transportation
  - Attempts to close the digital divide
- More recognition of structural prejudices in our institutions
  - Extreme political polarization around this recognition
  - Hybrid/remote work easing many office-prejudices for historically marginalized populations

# Are We Building Back Better?

- We need to move out of the “reactionary mode”
- As more money and resources for infrastructure become available:
  - What communities are we focused on?
  - How much research have you done on the **equitable** economic impact?
  - How much ownership do those communities have in the decision-making?
  - How do you prevent predatory investment and development?





DVRPC Futures Meeting  
Impacts of COVID-19 on Freight  
July 28, 2022

*Stephanie Finch, AICP*  
*WSP Freight & Logistics*

# Key Impacts of COVID-19 of Freight

1. Stay at home orders changing type and amount of demand
2. US economic stimulus inducing demand for goods
3. Workplace closures as well as worker illnesses and deaths constraining resource extraction, manufacturing output, and delivery
  - This impact is global, regional, local and intersecting with:
  - Non-COVID related supply constraints:
    - Deregulation & offshoring
    - Climate impacts on agricultural commodities
    - Long standing economic forces

# Existing Vulnerabilities

- ‘Just in Time Delivery’ and low inventory logistics strategies
- Dependence on off-shore manufacturing
- International trade policies (“Trade War”)
- Inadequate safety protocols
- Truck driver shortage and other labor issues





Source: Center City District & CPDC

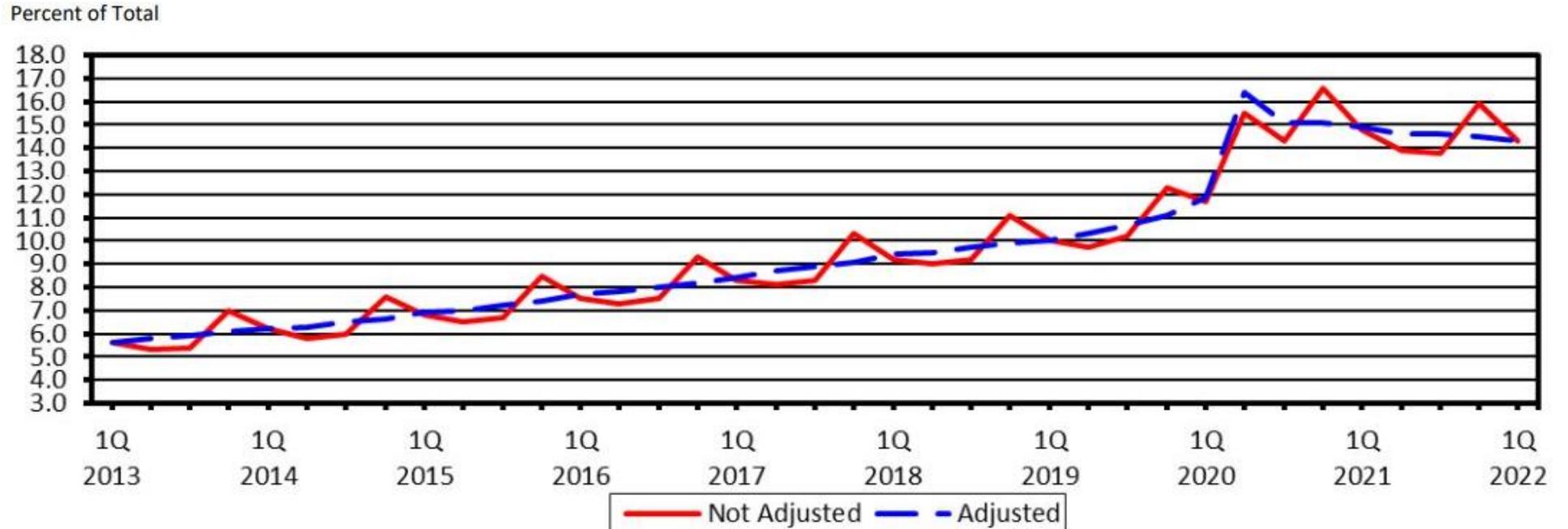






Source: New York Times

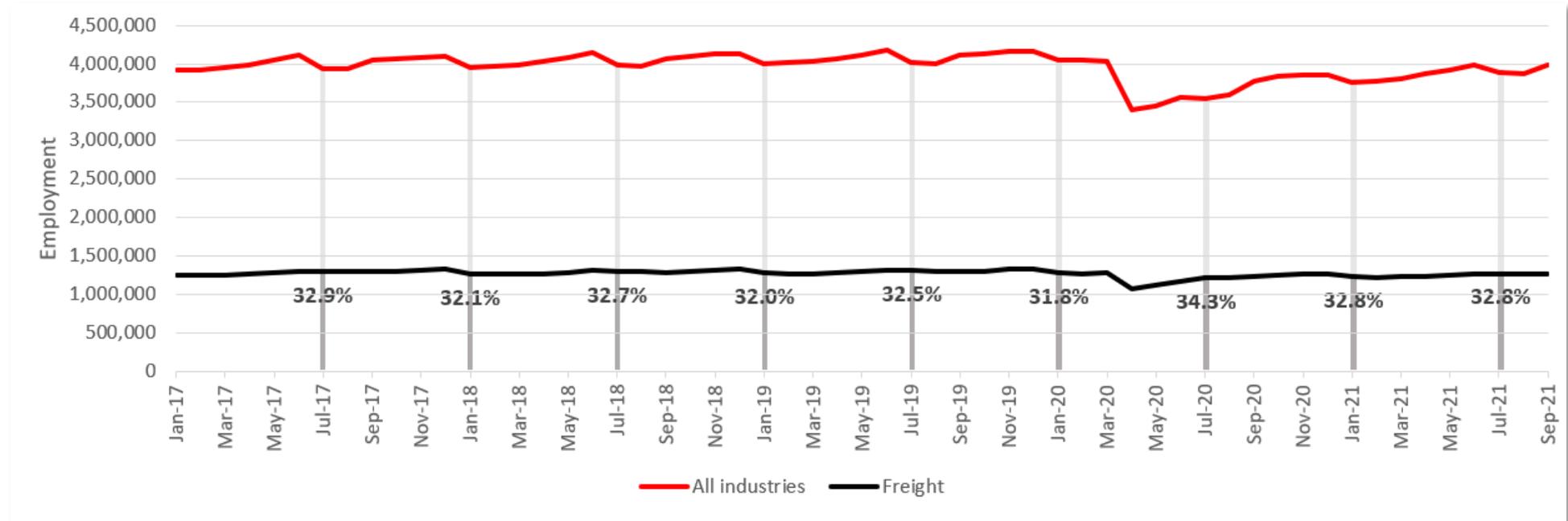
# E-Commerce Sales as a Percent of Total Retail Sales



# Transportation Impacts of E-commerce

- Increases in truck trip generation
  - Same, next, 2-day delivery requires more stops in the warehouse-to-destination chain; warehouses closer to destination
- Increasing presence of delivery trucks on local streets
- Plethora of last mile solutions
  - Crowd sourcing (Instacart)
  - Robots
  - Cargo bikes
  - Buy online, pick up in store

# Total and Freight Employment in NJ

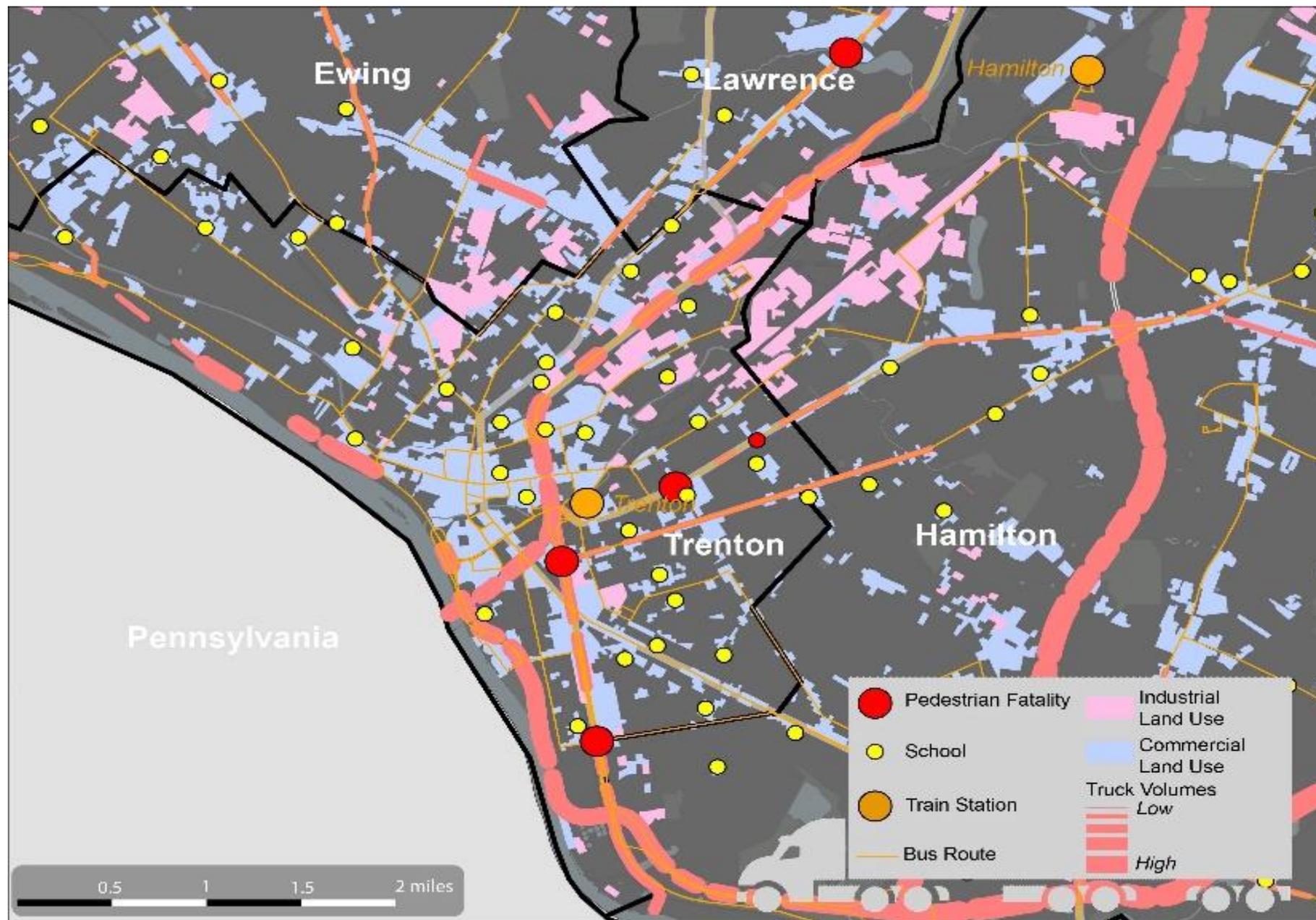


Source: County Business Patterns

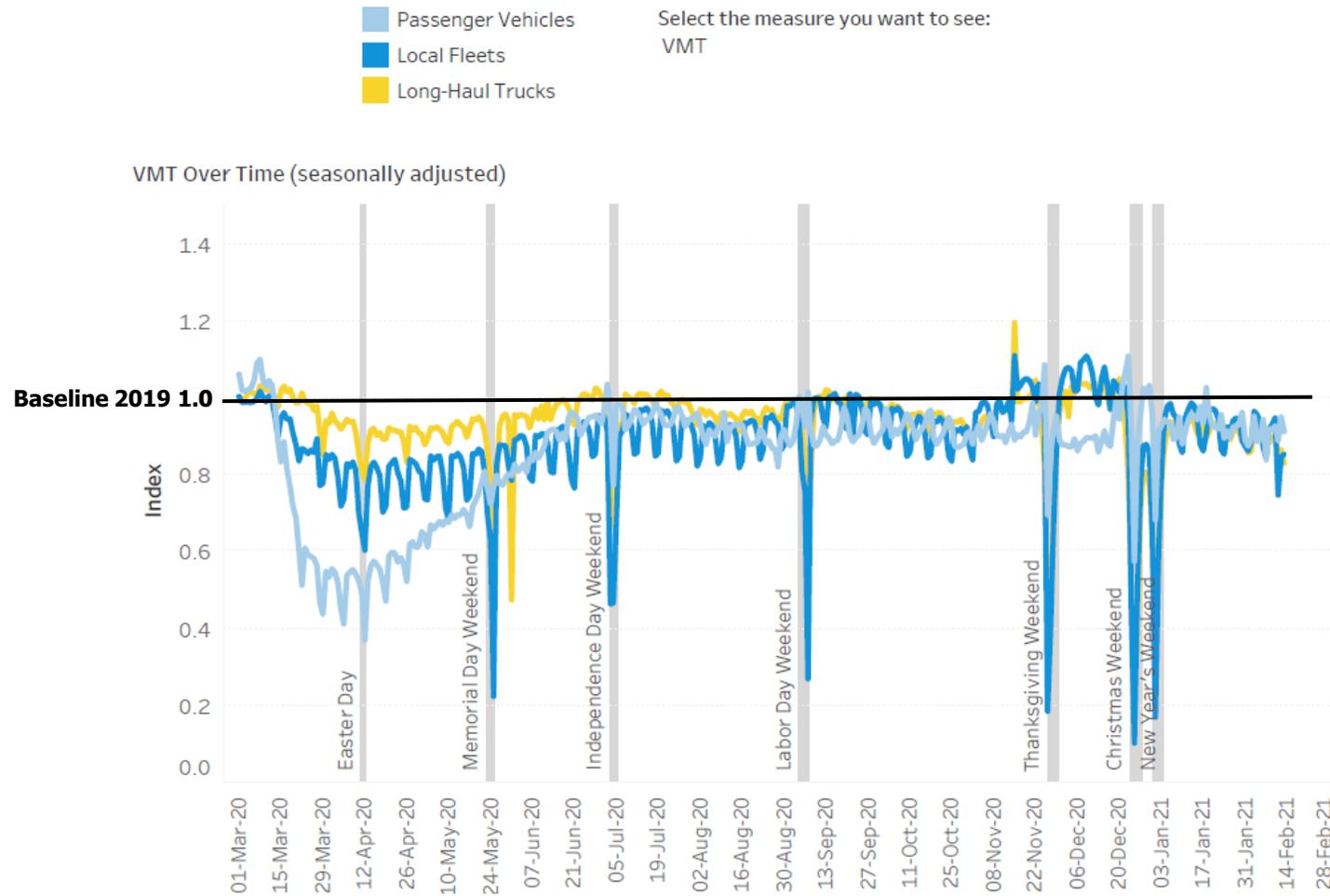
## Key freight related employment in NJ:

- Retail
- Wholesale
- Warehousing
- Transportation
- Manufacturing

Snapshot of Freight and Complete Streets, Trenton, NJ



# Vehicle-Miles Traveled Changes by Vehicle Type (2020)



Source: Bureau of Transportation Statistics dashboard, "Daily Vehicle Travel During the COVID-19 Public Health Emergency"

# Looking Forward

- Expect continued interruptions in agriculture due to climate, sociopolitical, and economic factors
- E-commerce will continue to impact local communities
  - Unknown: How will communities respond?
  - Will brick and mortar retail make a comeback?
- Nearshoring?
  - Was projected to grow after Great Recession but didn't materialize at scale



Thank You

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