

FORECASTING THE IMPACT OF THE CARES ACT

Agenda



- CARES Act
 - ▣ CARES Act Background
 - ▣ How the CARES Act Works

- REMI Tax-PI

- Model Demonstration in REMI Tax-PI

- Q&A

*what does **REMI** say? sm*

Gas Taxes: VMT Impacts

March 1 - April 24



Lockdowns due to COVID-19 lead to significant decrease in economic activity

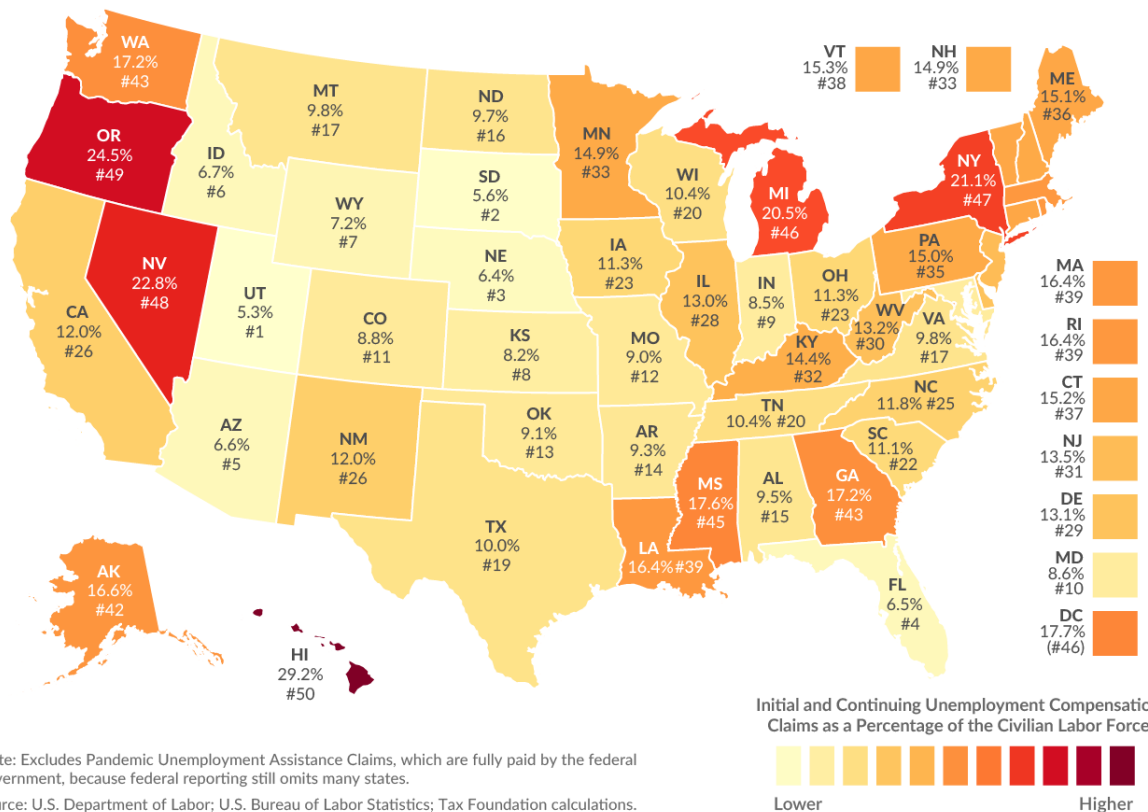
Social distancing, work from home, travel restrictions and quarantines

Individual Income Tax Base Declines – May 23



Unemployment Compensation Claims as a Percentage of the Civilian Workforce

Initial and Continuing Regular Unemployment Claims as a Percentage of the Civilian Labor Force, May 23, 2020

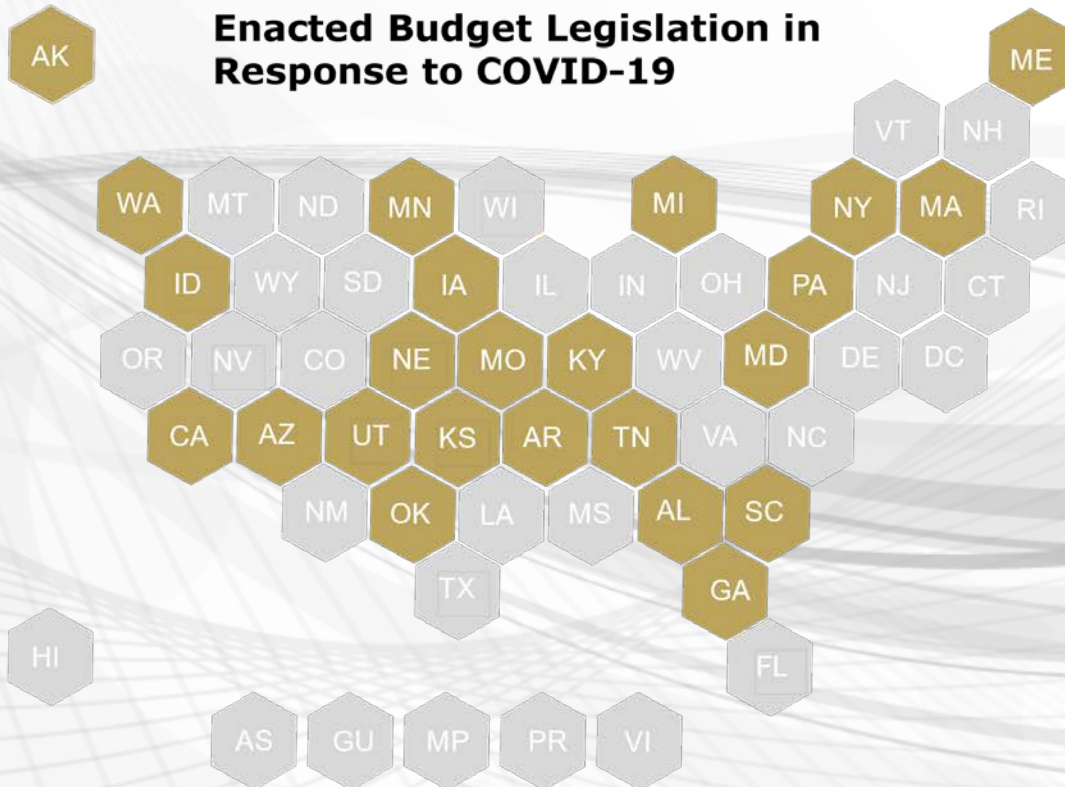


Record unemployment claims as a result of COVID shutdowns

Note: Excludes Pandemic Unemployment Assistance Claims, which are fully paid by the federal government, because federal reporting still omits many states.

Source: U.S. Department of Labor; U.S. Bureau of Labor Statistics; Tax Foundation calculations.

State Budget Legislations



State budget shortfalls due to decreased economic activity

26 states appropriated money from general fund

12 states transferred money from rainy day and reserve funds

Source: NCSL

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CARES Act



- Coronavirus Aid, Relief, and Economic Security (CARES) Act: over 2 trillion dollars of federal economic relief funding allocated on March 27th

- Four targets of the CARES Act
 - Assistance for American Workers and Families
 - Assistance for Small Businesses
 - Preserving Jobs for American Industry
 - Assistance for State, Local, and Tribal Governments

Source: US Treasury

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CARES Act



- Assistance for American Workers and Families
 - ▣ Up to \$1,200 per adult and \$500 per child
- Assistance for Small Businesses
 - ▣ Paycheck Protection Program to fund payroll costs and interest payments for small businesses
- Preserving Jobs for American Industry
 - ▣ Employee retention credit, payroll support and tax deferral

Coronavirus Relief Fund



- \$150 billion Coronavirus Relief Fund to help state, local, and tribal governments cover COVID-19 related expenses

- Funding allocation is determined by population
 - Each state receives at least \$1.25 billion
 - Sub-areas that have a population of at least 500,000 are eligible for additional funding

Coronavirus Relief Fund



- There are restrictions on how governments can use the funding. It can only be used to cover expenses that
 - are necessary expenditures incurred due to the public health emergency with respect to the Coronavirus Disease 2019 (COVID–19)
 - Were not accounted for in the budget most recently approved as of March 27, 2020 (the date of enactment of the CARES Act) for the State or government
 - were incurred during the period that begins on March 1, 2020, and ends on December 30, 2020

Coronavirus Relief Fund



- Allowed:
 - Medical expenses: e.g. medical facilities, testing, medical response, and telemedicine
 - Public health expenses: e.g. enforcing public health orders and quarantine, disinfection of public areas
 - Payroll of employees specifically dedicated to fighting coronavirus
 - Facilitating compliance: e.g. food delivery, distance learning, telework, prisons
 - Economic support: e.g. small business grants, unemployment insurance

Coronavirus Relief Fund



- Not allowed:
 - ▣ Expenses for state share of Medicaid
 - ▣ Insurance damages
 - ▣ General population payroll and benefits expenses
 - ▣ Expenses already being reimbursed by federal government

State Reactions



- Difference in speed and reaction between states
 - Some states are setting up new agencies and programs to oversee distribution of funds
 - Other states have detailed plans for transfers to various targets for funding

Source: NCSL

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State Reactions



- Ex. Colorado:
 - 205M for medical and public health expenses
 - 10M for maintaining state facilities
 - 500M to local school districts and 450M to higher education
 - 85M for payroll expense

State Reactions



- Ex. Michigan:
 - ▣ 120M for direct care workers
 - ▣ 125M to day care subsidies
 - ▣ 100M for hazard pay of first responders
 - ▣ 200M to local communities
 - ▣ 100M to small businesses
 - ▣ 60M to rental assistance

State Reactions



- States have so many (good!) options on how to allocate this funding
- Different allocations may have different implications on recovery

About REMI



REMI's 40-year history of rigorous academic research and software development has led to the development of the the industry standard in macroeconomic research methodology:

Input-Output

Regionalized inter-industry relationships

Econometrics

Behavioral responses to a changing economy

General Equilibrium

Understanding how supply and demand affects markets over time

Economic Geography

Effects of geographic concentration of labor and industry



Integrated REMI economic modeling approach



DECD

State of Connecticut
Department of Economic and
Community Development



Iowa Department of
REVENUE



LOUISIANA
DEPARTMENT of REVENUE



What is Tax-PI?



Answers to “what-if...?” questions about the economic and fiscal effects of policies

- Outputs include:
 - ▣ **Economic:** Employment by Occupation, Output, Personal Income, GRP, etc. at 70- or 160- industry sectors
 - ▣ **Demographic:** Population, Migration by 808 cohorts
 - ▣ **Fiscal:** Revenues such as income tax, sales tax, corporate profits tax; expenditure needs such as education, health care, public safety, public services

Fiscal-Economic Link in Tax-PI



User Calibration

- Expenditures
- Revenues

Build Simulation

- Economic development
- Tax policy

Dynamic Results

- Demographic
- Economic
- Fiscal

Methodology: Overview



1. Modify Baseline National Forecast to Reflect National COVID-19 Slowdown/Recession Scenario
2. Use COVID-19 National Forecast to Drive State/Regional Forecast
3. Additional Modifications/What-Ifs for State/Region
4. Fiscal Policy Responses to Budget Shortfalls

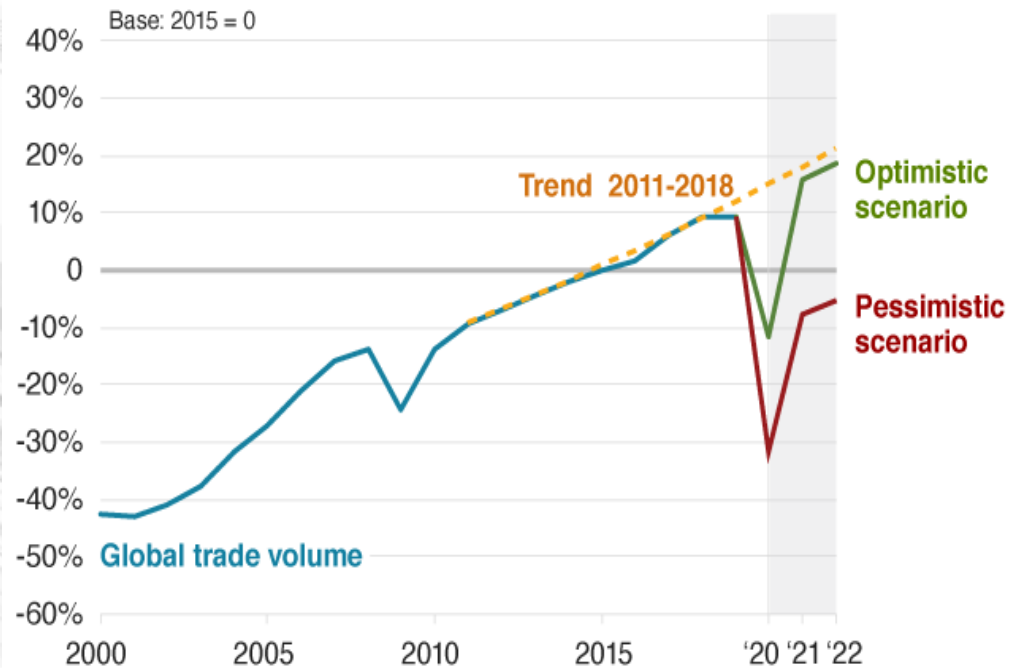
COVID-19 Impacts



1. Loss of Productivity, Absenteeism, Shutdowns
2. Consumer spending
3. Supply chain disruption
4. Decline in global demand
5. Increase mortality rate

World Trade set to plunge

Growth rate for global trade and WTO scenarios



Source: WTO secretariat



Model Demonstration