Measuring the Incidence and Effects of Unemployment Insurance Benefits During the COVID-19 Crisis
Evidence from Administrative Records from California

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Unemployment During the COVID-19 Crisis in the U.S. & California

Public health measures in response to COVID-19 led to staggering number of UI claims
  • Over 50 million workers filed for UI benefits in U.S., about 10 million in California

Crisis also led to large shift in the composition of UI claimants towards low-wage workers
  • A substantial increase in claims from low educated, younger, non-white, and women

Fast moving nature of crisis put more emphasis on weekly UI claims data
  • Some limitations of that key source of information became apparent

In response, federal government substantially increases UI benefit payments
  • Led to a debate on whether extending such generous benefits is counterproductive

➤ Important to revisit what we can learn from UI claims and what we know about the effect of UI claims on labor supply
Unemployment Insurance Extensions during COVID-19 Crisis in U.S.

New Major Policy Responses:

• Large increase in benefit levels through Federal Pandemic Unemployment Compensation (FPUC, $600/week), Lost Wages Assistance (LWA, $300/week)
  • This led to rise in income replacement rate to over 100% for many workers
  • Partly out of concern for work disincentives program expired end of July
  • Common debate in recessions: do UI extensions do more harm than good?
• Extended UI coverage for self-employed and not covered low income workers through Pandemic Unemployment Assistance (PUA) program

More Common Major Policy Responses:

• Extend benefit duration financed by federal government
• Fully finance Work Sharing (Short-Time Compensation) benefits
• Provide funds for states’ administration of UI benefits
UI Claims during COVID-19 Crisis & Labor Supply Effects

Step 1: Analyze differences in UI claims during COVID-19 in California

• Exploit unusual access to micro records from California UI system
• Allow us to analyze real-time differences by education, demographics, industry
• Allow us to measure (for the first time!) for which dates individuals received UI

Step 2: Estimate effect of UI benefit levels on labor supply using kinked benefit schedule

• Exploit idiosyncratic features of UI benefits and changes during the crisis
• Compare effect during COVID-19 with effects in years before crisis & Great Recession

Preliminary Bottom Line:

1. UI micro data can provide substantially more information that published data
2. Higher UI benefits prolonged unemployment, but may not have reduced employment
Unique Administrative Data on Unemployment Insurance (UI) Claims

UI Claims Data:

Information on timing of initial claims & benefit receipt

Information on demographics, residence, industry, prior employer

Sample:

Consider all UI claims occurring during 2020-2021

Later on, bring in data going back to the year 2000

Why is this unique:

1. Can revisit some key measurement issues
2. Provide information that was not available before
3. Can associate claim behavior to circumstances of individual and community
Breaking Down Initial Claims in California – Churn in the UI System

In CA, initial claims still at peak of Great Recession early 2021.

Additional claim occurs if a worker was on UI and leaves UI for intervening employment.

Most initial claimants are additional claimants in CA since Fall 2020.

PUA played an important role in Spring and Summer of 2020.

(Note: U.S. DOL’s “Initial Claims” Combines New Initial Claims and Addition Claims.)

Source: California Policy Lab, March UI Report
The stock of UI recipients in the U.S. is typically measured by the number of people who “certify” for benefits – i.e., those that confirm at a bi-weekly level that they are still unemployed.

This is only a good measure if a) claimants roughly certify when they are unemployed, b) claimants do not certify retroactively for many weeks.

For the first time, CPL calculated the stock by the week of actual unemployment, which evolves quite different from the number of certifications.

(Note that in CA, certification is bi-weekly, so the no. of people certifying is roughly half of no. of certifications in absence of retroactive claims.)

Source: California Policy Lab, March UI Report
More UI Claims Among More Vulnerable Workers

Over 1 in 2 workers with a high school degree, young workers, Black workers; over 1 in 2 women have filed a UI claim from March 2020 to April 2021. Statewide the fraction of workers filing a regular UI claim was 30%, 48.2% including PUA.

In contrast, the fraction among mature workers or those with a Bachelor’s degree are smaller.

The rise in claims by more vulnerable workers is partly explained by a large initial amount of claims from Accommodation & Food Services and Retail Trade industries.
See low pre-crisis recipiency rates.

By end of the year, recipiency rate around 90%.

Throughout, there was a 30-40 percentage point difference in recipiency rate between highest and lowest county.

Source: California Policy Lab, February Data Point
Taking a Closer Look at the Recovery

How have different neighborhoods in LA County fared since the peak of the crisis?

Inglewood, Compton area slower to recover.

Future work will directly analyze geographic patterns and correlations.
Recipiency rates of counties vary in predictable fashion.

Counties that are poorer, have less broadband access, are more Hispanic, and have fewer English speakers have lower recipiency.

The same holds at the Census Tract level as well.

Source: California Policy Lab, February Data Point
FPUC Helps UI Claimants Avoid Near-Poverty Level Benefit Levels

The **average Weekly Benefit Amount (WBA)** for regular UI benefits fluctuated between $300-330 during the crisis.

Lower WBA implies lower prior earnings, since WBA is approximately 50% of prior average weekly earnings.

Without FPUC, $330 is below 30% of Median Family Income in CA, and thus would be considered “Extremely Low Income” by HUD standards.

With $300 LWA or PAC payment, total benefits rise above “**Very Low Income**” level, but still far below “**Low Income**” threshold.
Estimating the Effect on Labor Supply During COVID-19 Crisis

Approach No. 1: Exploit the fact that benefit schedule has a kink in it

• In California, benefits are 50% of earnings in a base period up to $450, creating kink
• Base earnings are the highest quarter earnings of 5 most recent completed quarters

► Estimate a standard ‘Regression Kink Design’ (RKD)
  1. Assess whether individuals just above and below the benefit kink are comparable
  2. See whether the rate of exiting UI also exhibits a kink when benefits ‘kink’

Approach No. 2: Exploit that $300/week LWA benefit only paid if UI benefits>$100/week

• Compare unemployment of workers with just $100 UI benefits vs. those just below $100
• Harder to use turn on/off of benefit supplements for all workers because of time trends
Approach 1: Kinked UI Benefit Schedule in California (and other states)

- Benefits increase by 50 cents per $1 prior earnings
- Benefits flat at $450
Clear Labor Supply Responses Around Benefit Kink

8-week Survival

Highest Quarter Wages Relative to Kink

- Benefits increase by 50 cents per $1 prior earnings
- Benefits flat at $450

counterfactual with no kink in benefits

Sharp difference in slopes → effect of (lack of) added benefits
Benefit Effects from 2006 to 2020 Expressed in Percent Terms
To Account for Differences in Benefit Levels

Median US elasticity ≈ .38
(Till’s survey)

1% increase in benefits $\rightarrow \approx .25 - .3\%$ duration increase
(does not seem to vary w/ recessions)
Approach 2: Discontinuity in Receipt of $300/week LWA Benefit

For 6 weeks starting on July 26th, individuals could receive additional $300/week from Lost Wages Assistance (LWA).

But only if their Weekly Benefit Amount (WBA) was at least $100.

Figure clearly shows that those workers receiving LWA had a lower rate of UI weekly exit.

*(Based on average exit rates for individuals receiving benefits end of August.)*
Approach 2: Discontinuity in Receipt of $300/week LWA Benefit

Size of Labor Supply Effect:

• At $100 Weekly Benefits Amount, benefits increase by 300%!

• Average unemployment duration increased by ~20%, or about 5 weeks

→ Estimate implies similar magnitude as regression kink design!

Interpretation:

1. Clear evidence that UI benefits raised unemployment durations during the crisis

2. Only a concern if these workers get worse jobs – work in progress

3. May have prevented infections with COVID-19 – work in progress

4. Not evidence that UI benefits lowered total employment
Conclusion

UI Data Allowed us to Obtain Some Key Insights Into the Unemployment Crisis

• Novel insights into a range of aspects of UI system

 Analyzed incidence & labor supply effects of Unemployment Insurance in COVID-19 Crisis

• Used unique administrative micro records covering all California for over 20 years
• Used Regression Kink & Discontinuity Designs to obtain causal effect of UI benefits

Overall our Current Findings Indicate:

1. Individual-level UI data allowed to substantially improve measurement of incidence, adequacy, and recipiency of UI during the crisis

2. Increased UI benefits during the crisis likely increased duration of UI benefit receipt, the same or less compared to before the crisis
BONUS Slides – RKD
Comparison of Magnitudes with Respect to Prior Literature

**Difference in our paper:** Most U.S. papers use UI duration in weeks

That said, compared to the typical benefit elasticity, our estimates are on the lower end:

- Literature Survey (Schmieder & von Wachter 2018): **U.S. median elasticity 0.38**
- *RKD 5 U.S. states 1976-84 (Landais 2015): 0.21-0.7*
- *RKD Missouri 2003-2013 (Card et al. 2015): Expansion 0.35, Recession 0.65-0.9*
- *U.S. 1985-2000 (Kroft and Notowidigdo 2016): 0.6 (Recession 0.3)*

**Variation of benefit elasticity with unemployment rate:**

- Mixed evidence - Kroft & Notowidigdo (declining) vs. Card et. al. (increasing)
- Effect of benefit duration close to a-cyclical in Schmieder, von Wachter, Bender (2012)

⇒ Our estimates are of plausible magnitude & provide important update to literature
No Discernible Change in Density of UI Beneficiaries Around Kink
Labor Supply Effect at Kink has Declined During COVID-19 Crisis

Downward pivot may be:
1) Behavioral responses to +$600
2) Disproportionate impact of crisis on lower earners, etc.
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→ But also coming from a larger base... let us look at the numbers
Robustness with Respect to Changes in Bandwidth

![Graph showing robustness with respect to changes in bandwidth.](image-url)
Role of Recall for Chances of Reemployment [BONUS]

Percent of Claimants Potentially Eligible for Payment Certifying for the Last Time in That Week Prior to an Exit

![Graph showing the percent of claimants potentially eligible for payment certifying for the last time in that week prior to an exit. The graph includes two lines: one indicating claimants expecting recall and another indicating those not expecting recall. The data points are marked for specific dates from February 29 to July 18.](image-url)
Differences in Labor Supply Effects at Kink by Recall Status [BONUS]

Interpretation: Generally lower behavioral response for those expecting recall (less negative slope around kink)
BONUS Slides – RKD
Robustness with Respect to Changes in Bandwidth
Variation in Effect by Calendar Week