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

Step1: 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

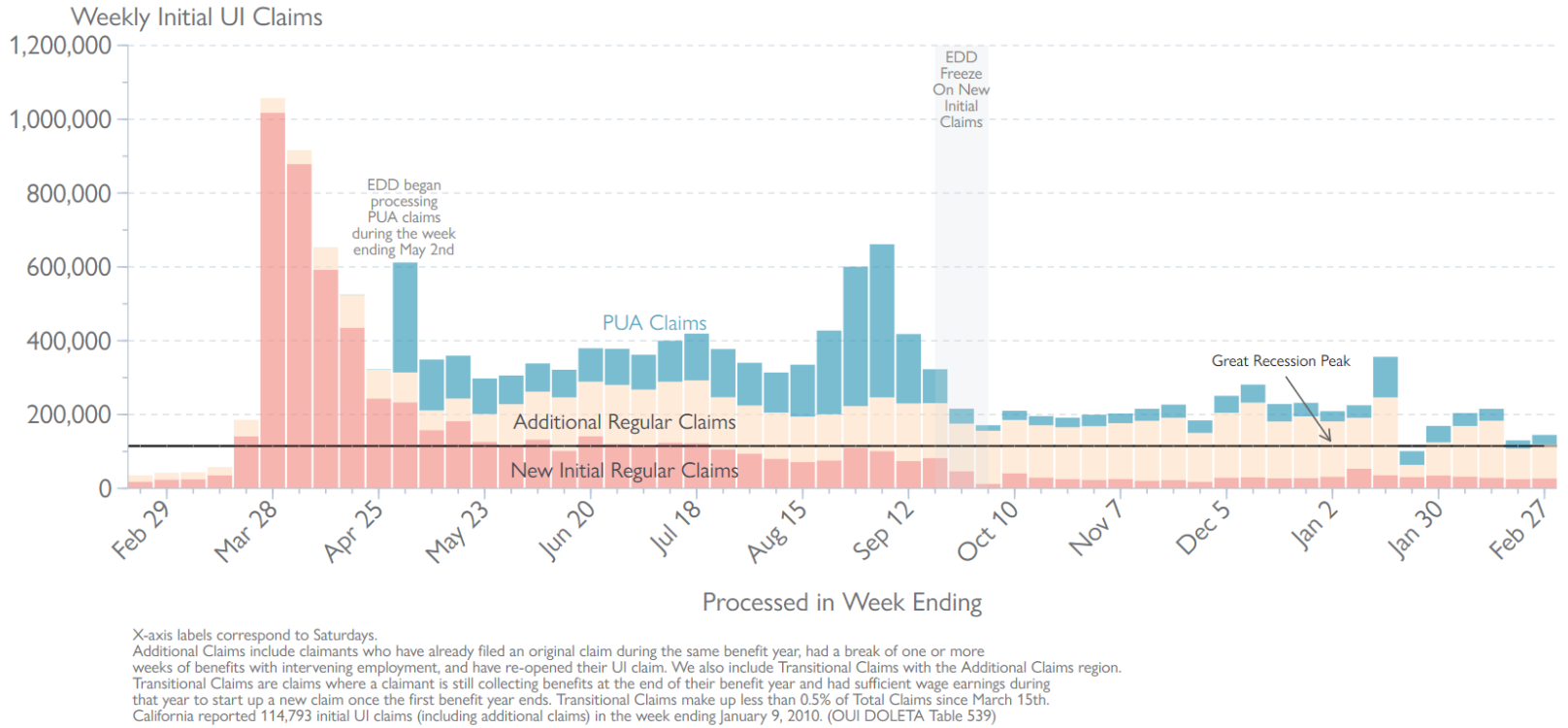
Breaking Down Initial Claims in California – Churn in the UI System

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.)

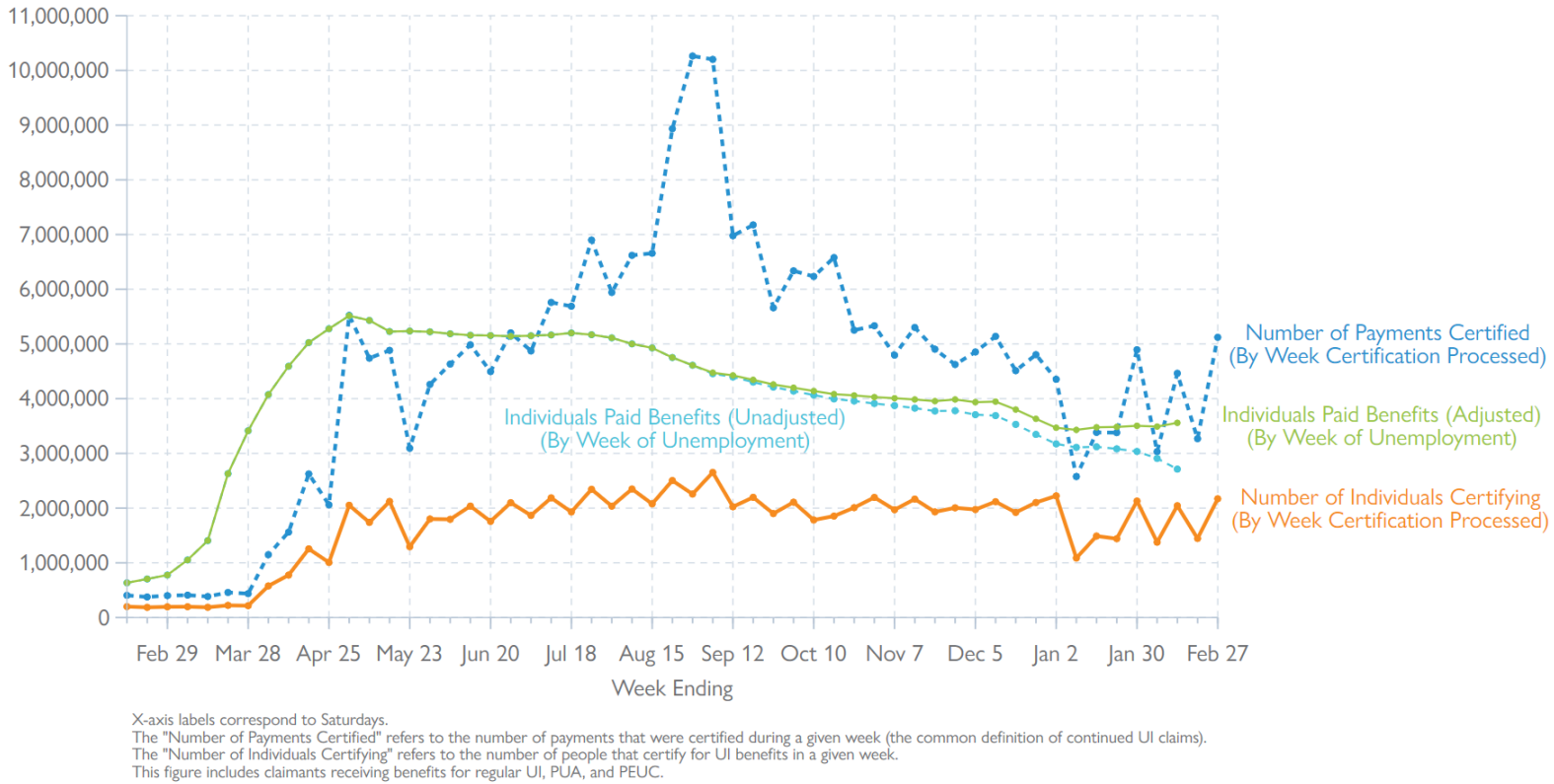
Source: California Policy Lab, March UI Report

Stock of UI Recipients vs. Number of Weeks Certified in California

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 <u>by the week of actual unemployment</u>, 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.)

<u>Source:</u> California Policy Lab, March UI Report

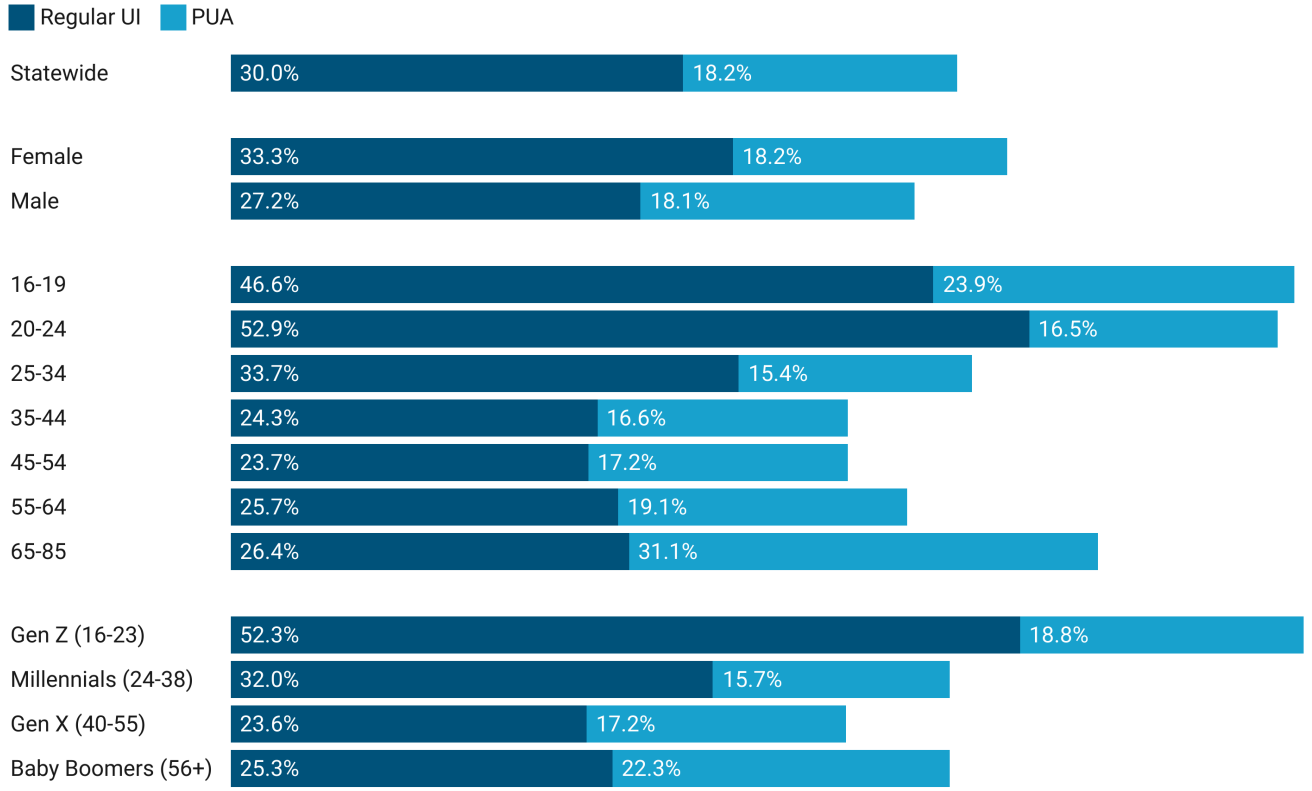
More UI Claims Among More Vulnerable Workers

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.

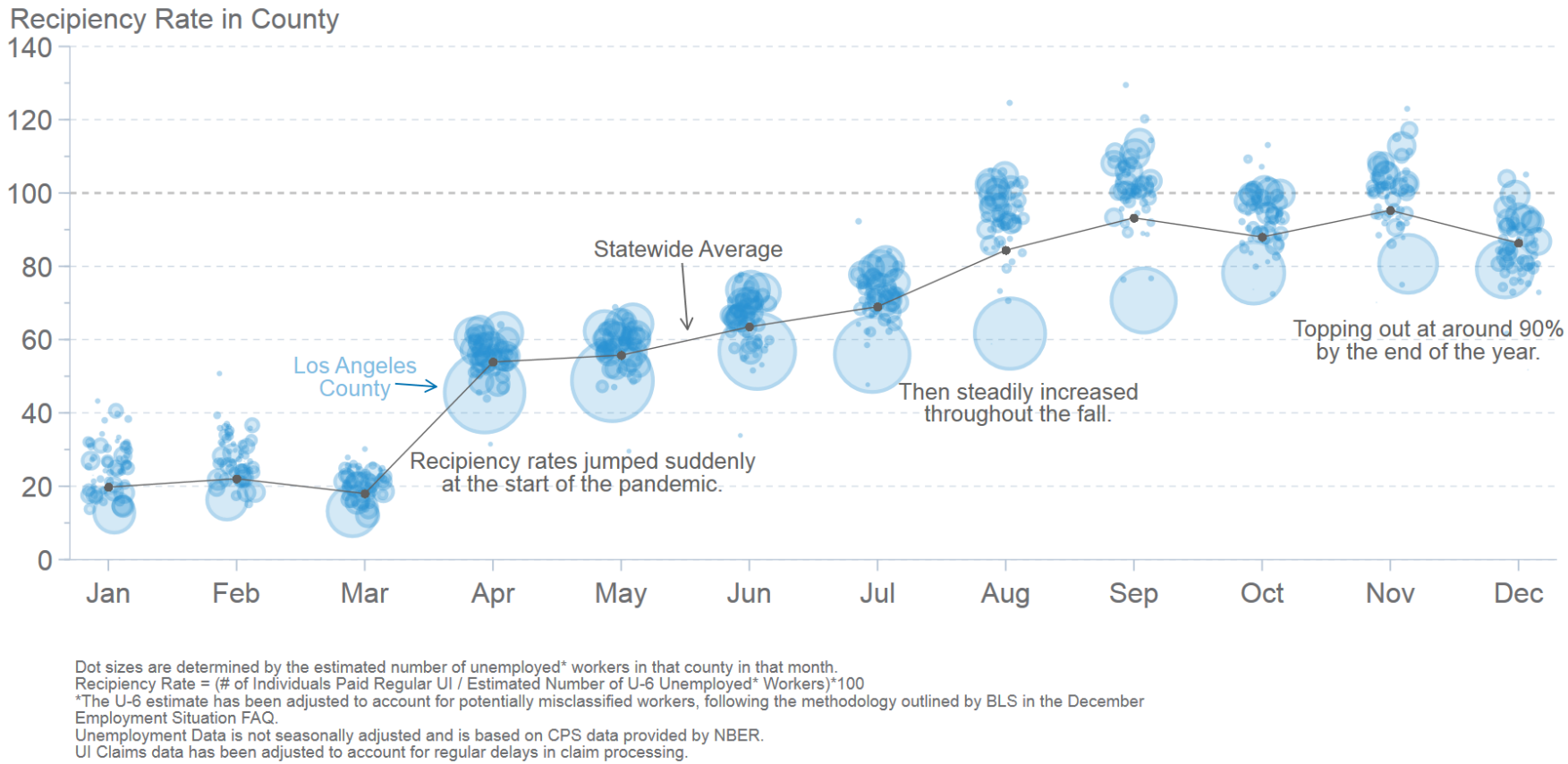
Total Unique Claimants During the COVID-19 Pandemic As a Percent of the Pre-Crisis Labor Force



Includes individuals filing initial claims between March 15, 2020 and April 17, 2021.

Source: California Policy Lab & EDD • Created with Datawrapper

A Closer Look At Our Preferred Measure During the COVID-19 Crisis



Dot sizes are determined by the estimated number of unemployed* workers in that county in that month.
Recipiency Rate = (# of Individuals Paid Regular UI / Estimated Number of U-6 Unemployed* Workers)*100
*The U-6 estimate has been adjusted to account for potentially misclassified workers, following the methodology outlined by BLS in the December Employment Situation FAQ.
Unemployment Data is not seasonally adjusted and is based on CPS data provided by NBER.
UI Claims data has been adjusted to account for regular delays in claim processing.

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.

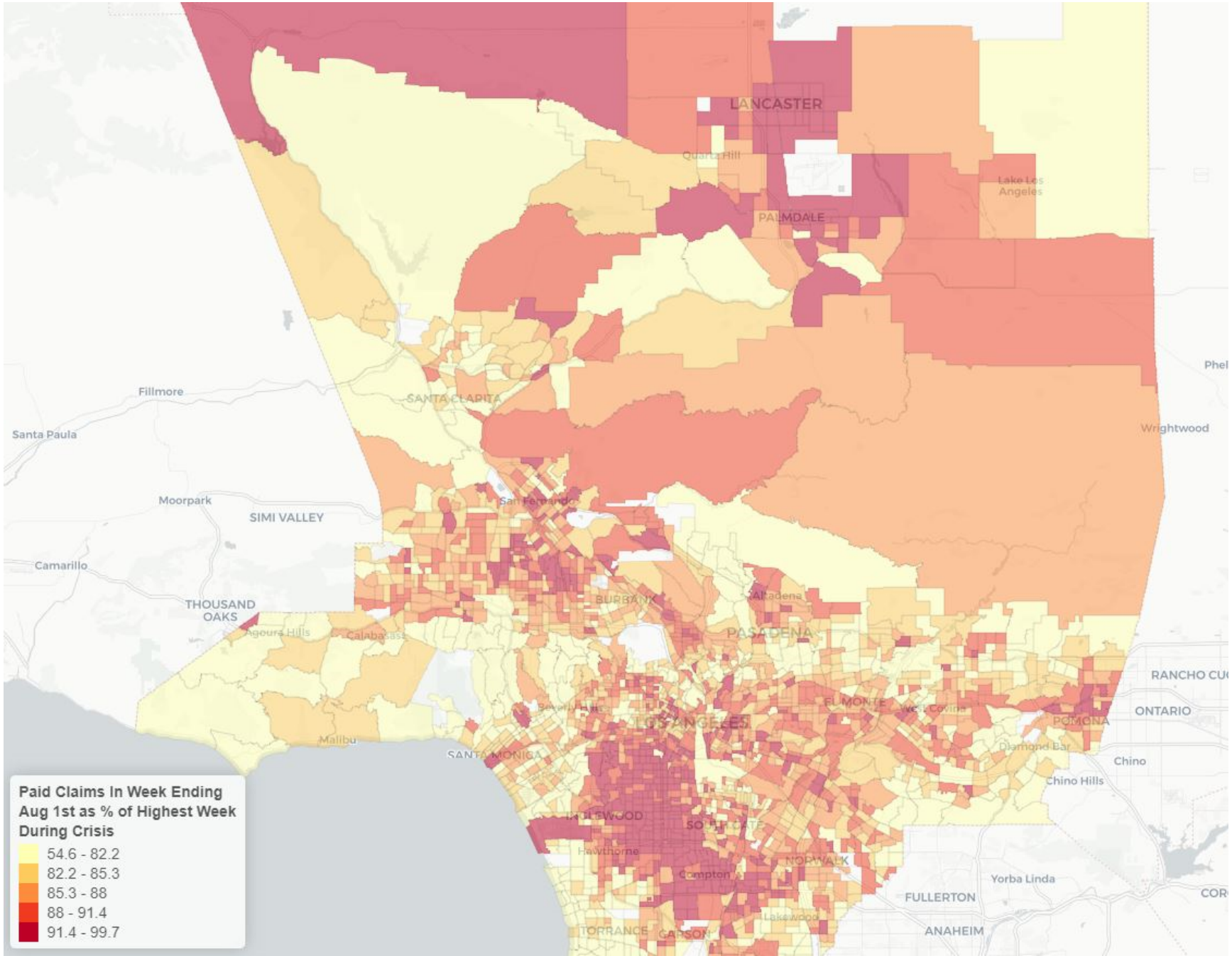
Source: California Policy Lab, *February Data Point*

Taking a Closer Look at the Recovery

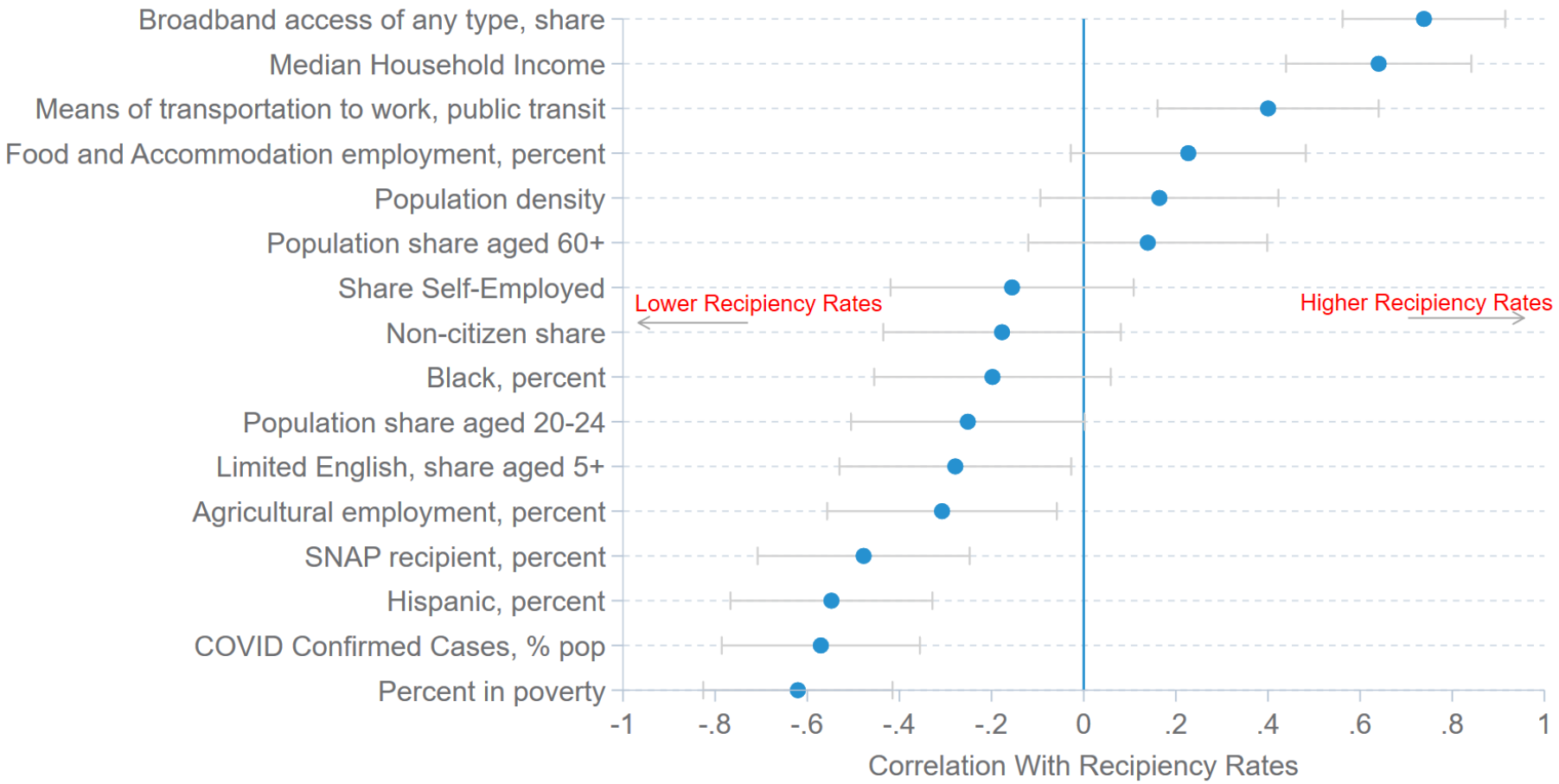
How have different neighborhoods in LA County fared since the peak of the crisis?

Inglewood, Compton area slower to recover.

Future work will directly analyze geographic patterns and correlations.



Recipiency Rate Differences by County in California



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*

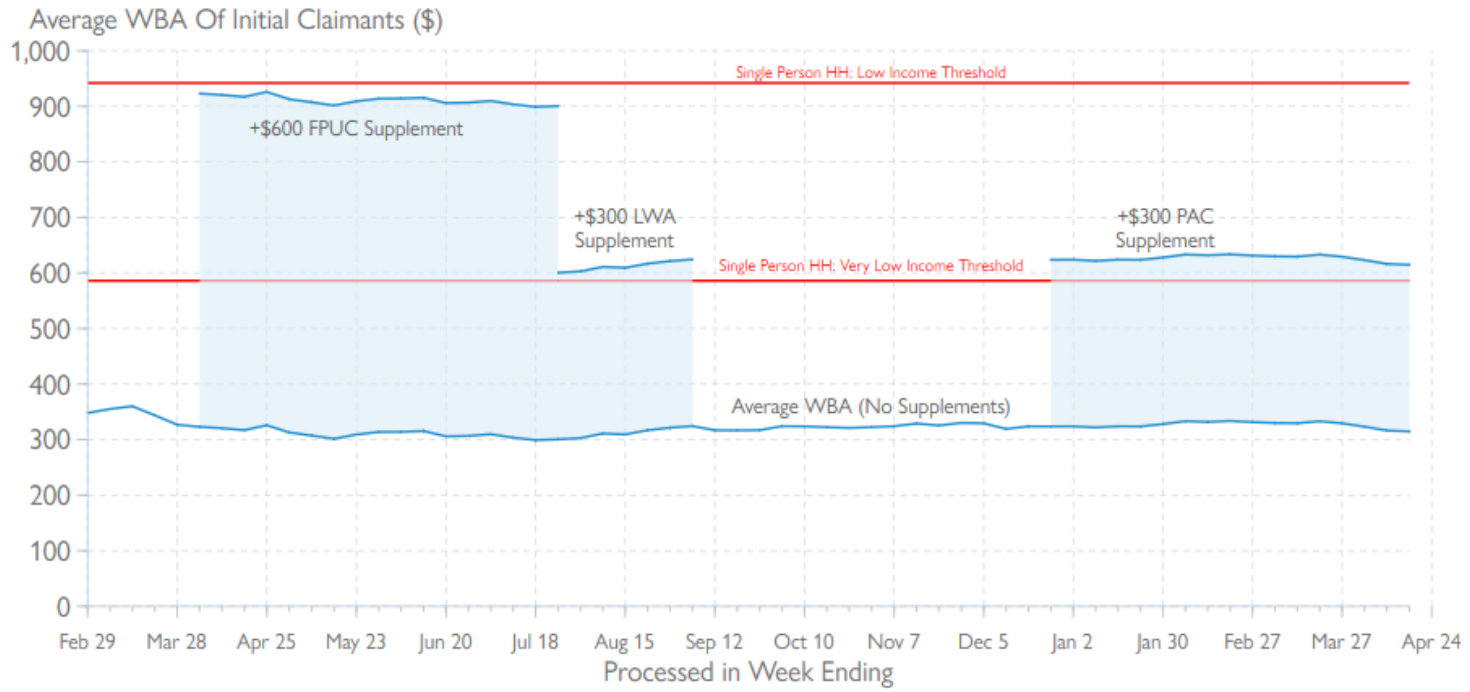
FPUC Helps UI Claimants Avoid Near-Poverty Level Benefit Levels

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.



X-axis labels correspond to Saturdays.
Does not include PUA claimants or transitions to extension programs.
Eligibility for FPUC, LWA, and PAC supplements are determined by the week of unemployment, not the week the initial claim was filed.

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

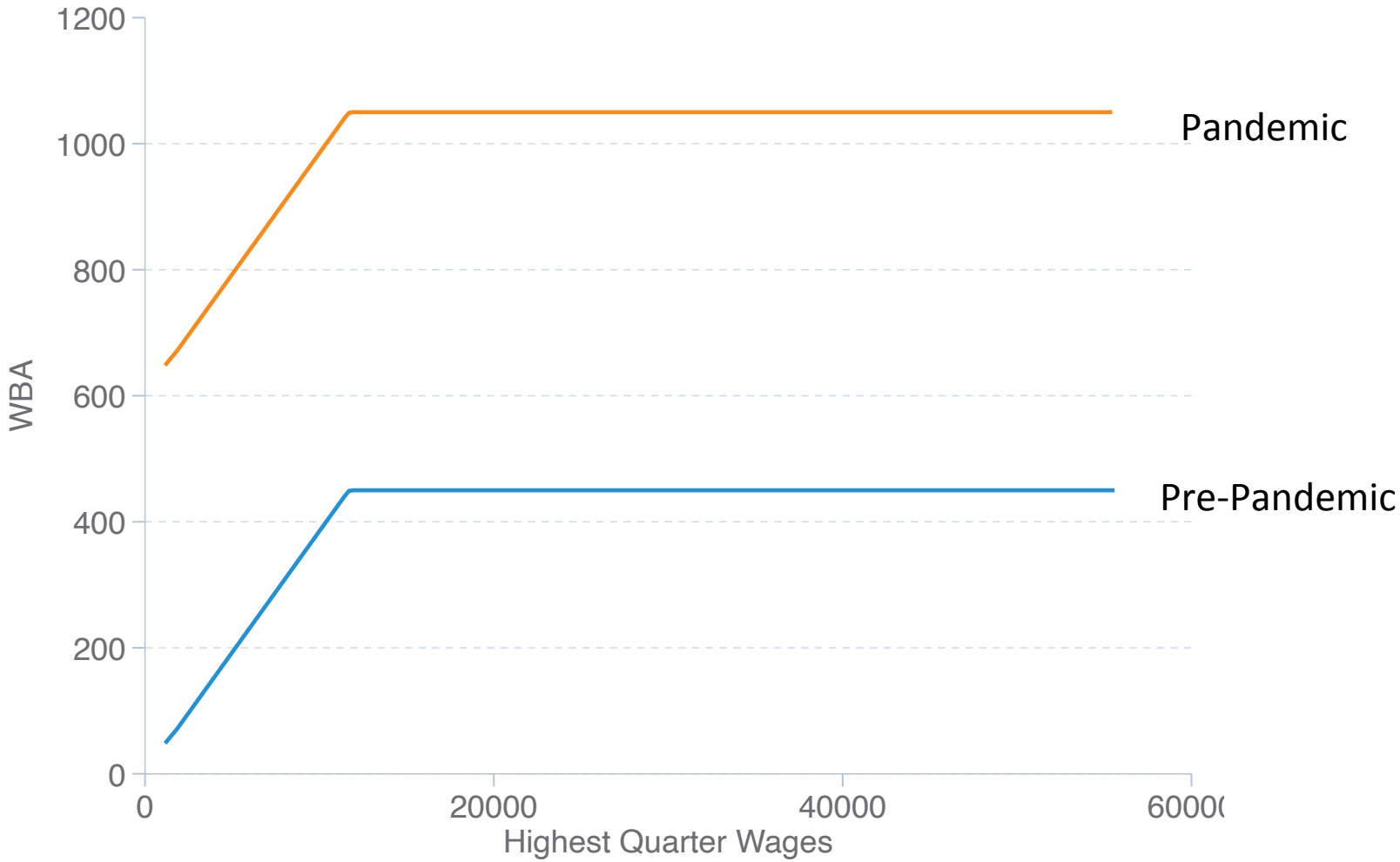
➔ **Estimate a standard 'Regression Kink Design' (RKD)**

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'

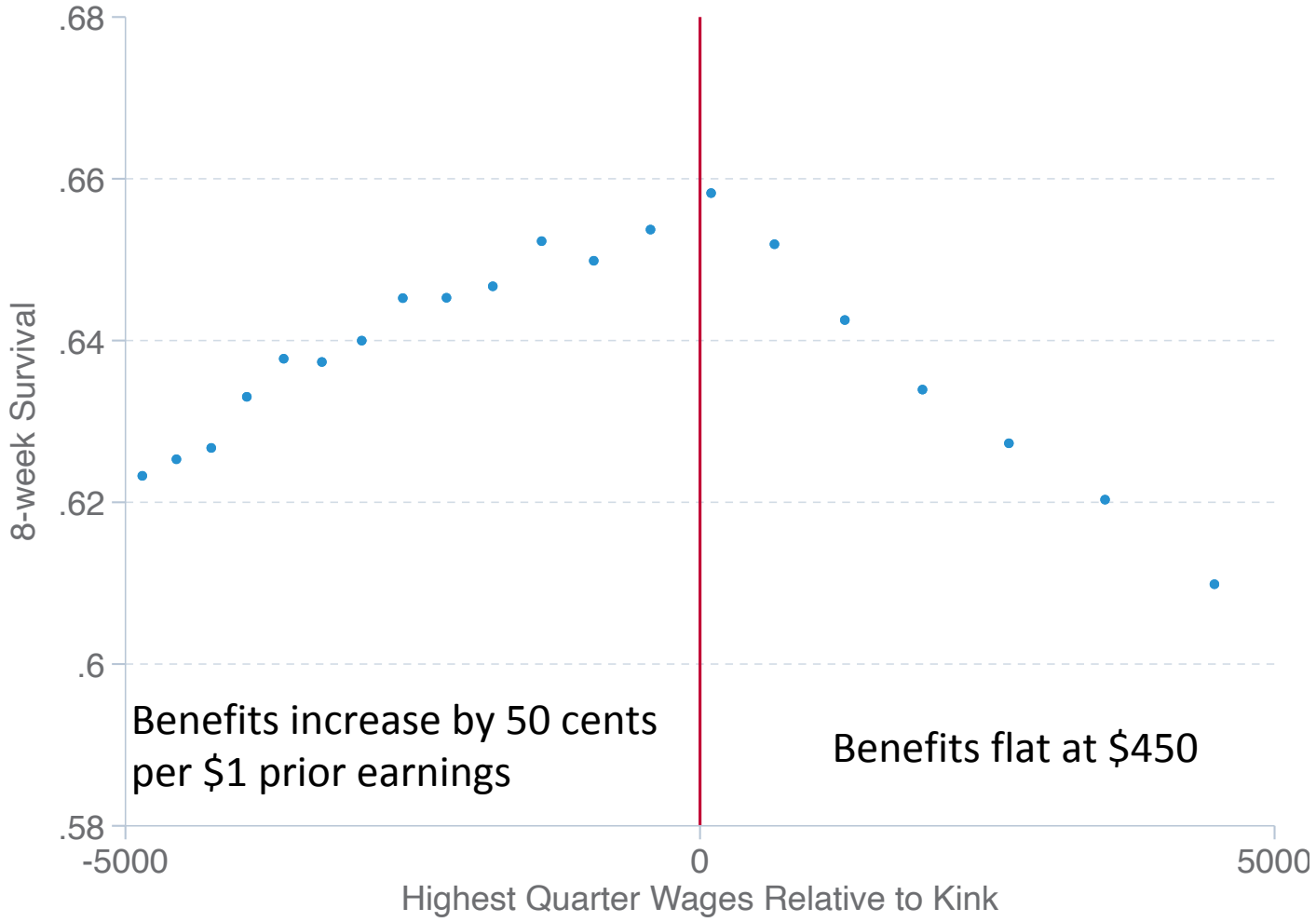
Approach No. 2: Exploit that $300/week LWA benefit only paid if UI benefits>$100/week

- 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 (& other states)



Clear Labor Supply Responses Around Benefit Kink (2011-2019)



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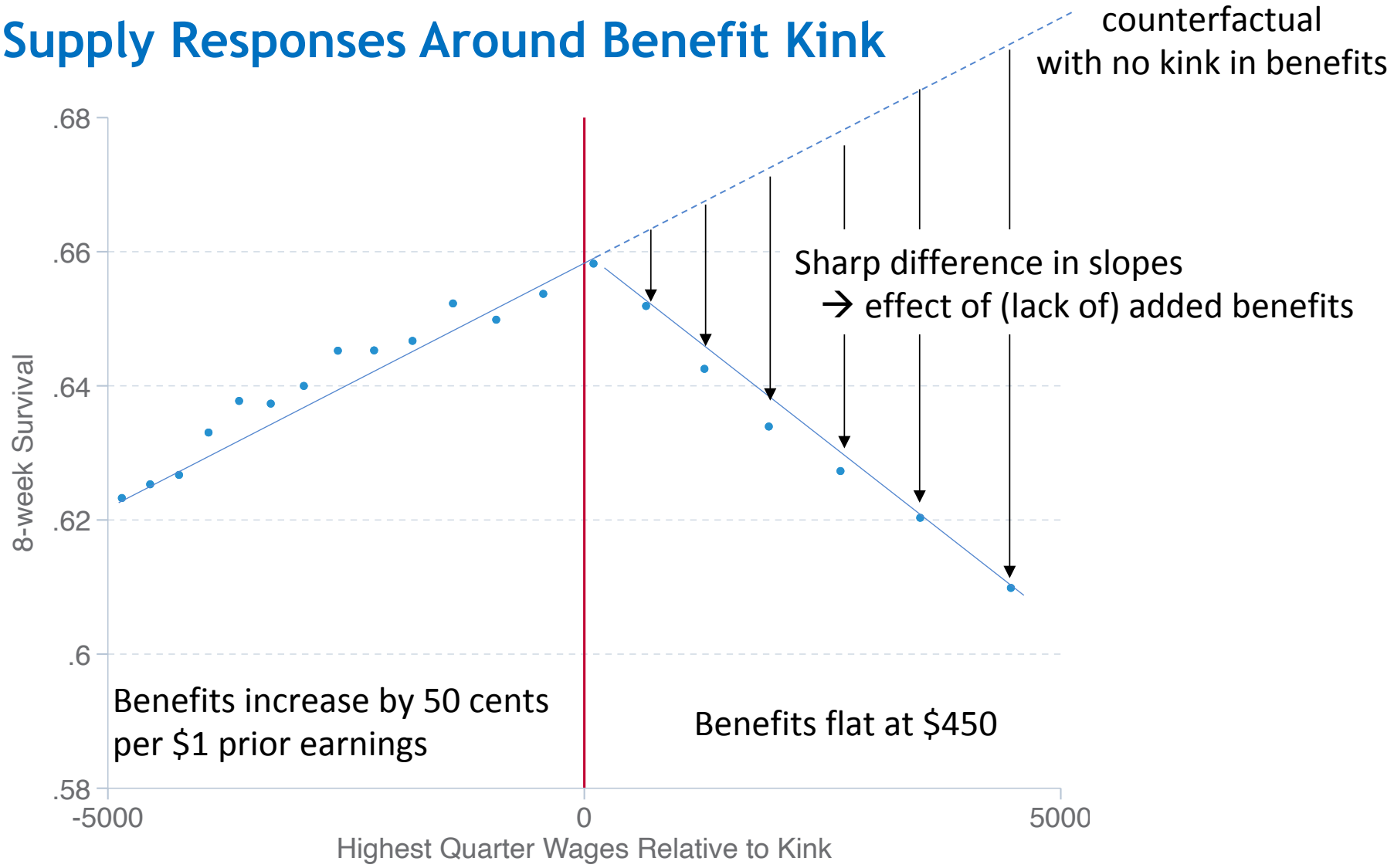
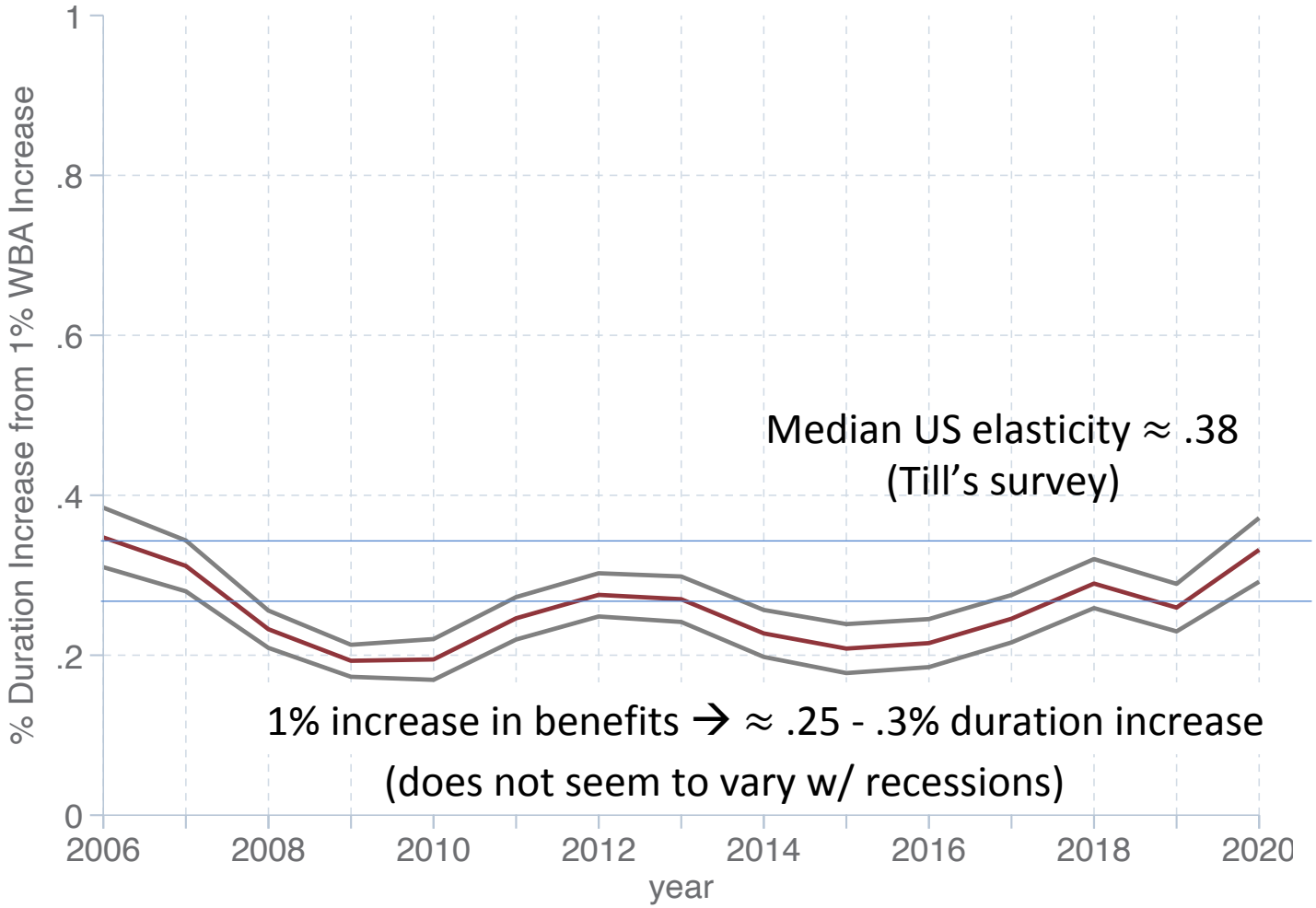


Benefit Effects from 2006 to 2020 Expressed in Percent Terms

To Account for Differences in Benefit Levels



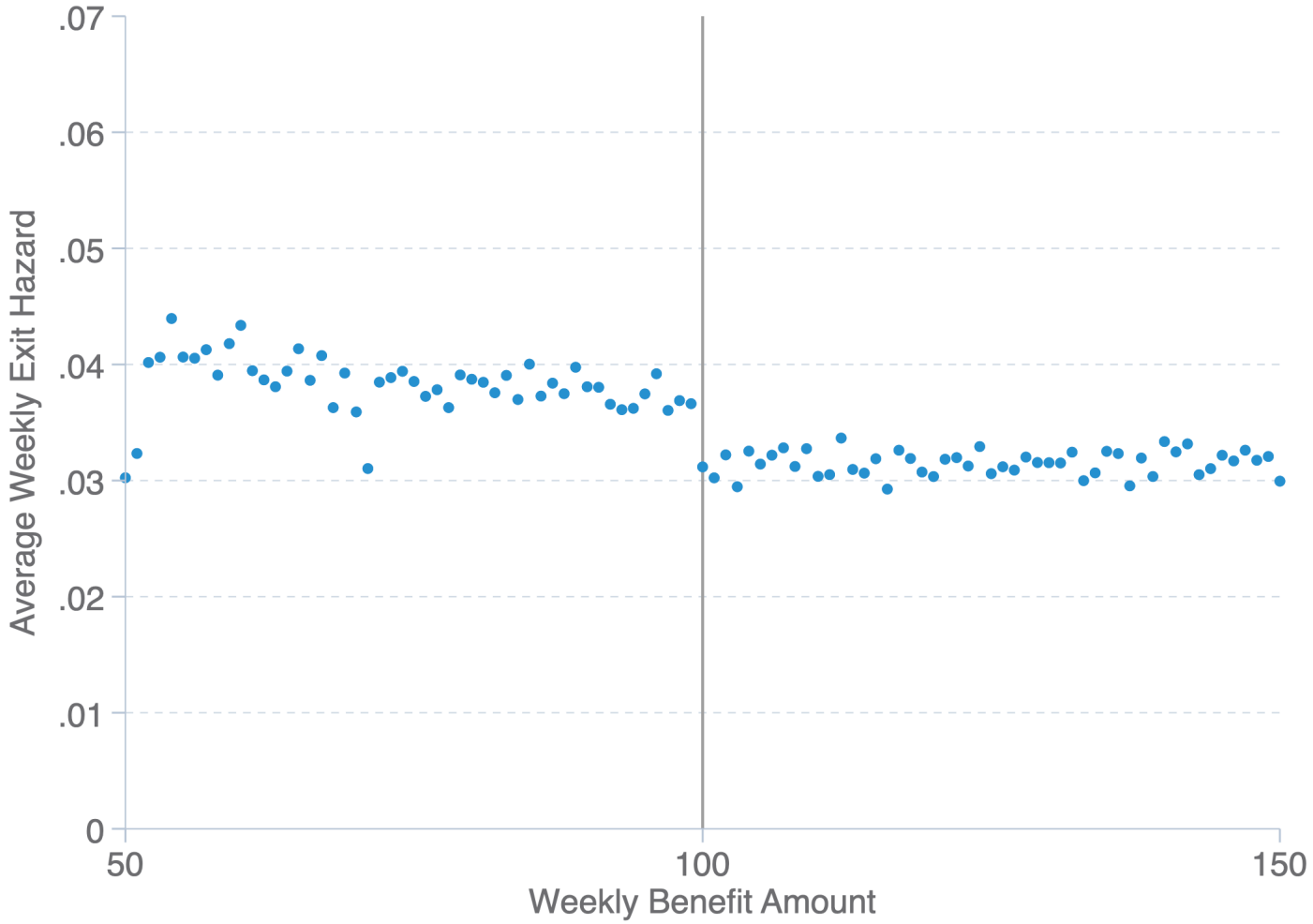
Approach 2: Discontinuity in Receipt of $300/week LWA Benefit

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.)



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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:

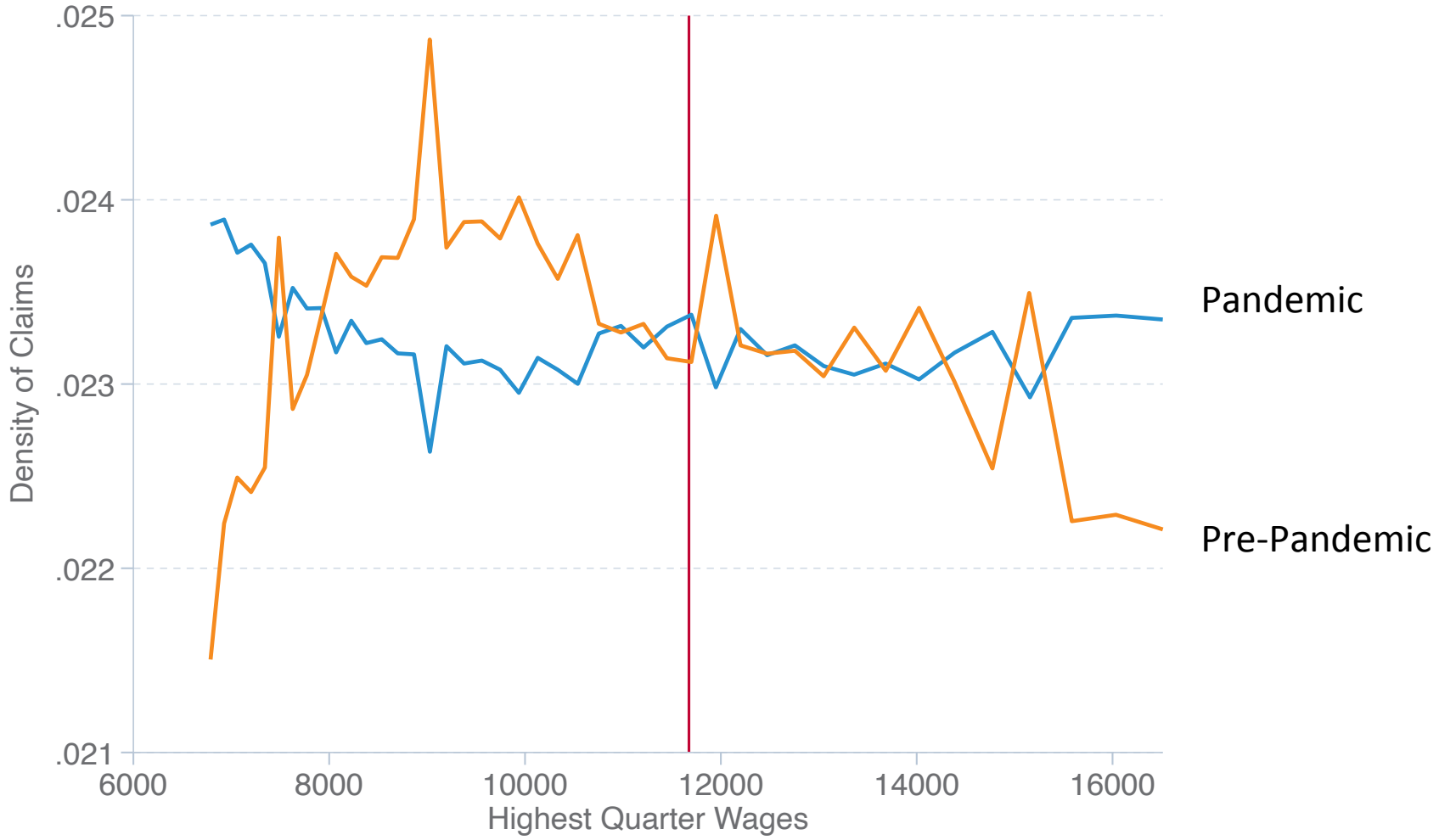
- Literature Survey (Schmieder & von Wachter 2018): **U.S. median elasticity 0.38**
- *RKD 5 U.S. states 1976-84 (Landais 2015): 0.21-0.7*
- *RKD Missouri 2003-2013 (Card et al. 2015): Expansion 0.35, Recession 0.65-0.9*
- *U.S. 1985-2000 (Kroft and Notowidgdo 2016): 0.6 (Recession 0.3)*

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**

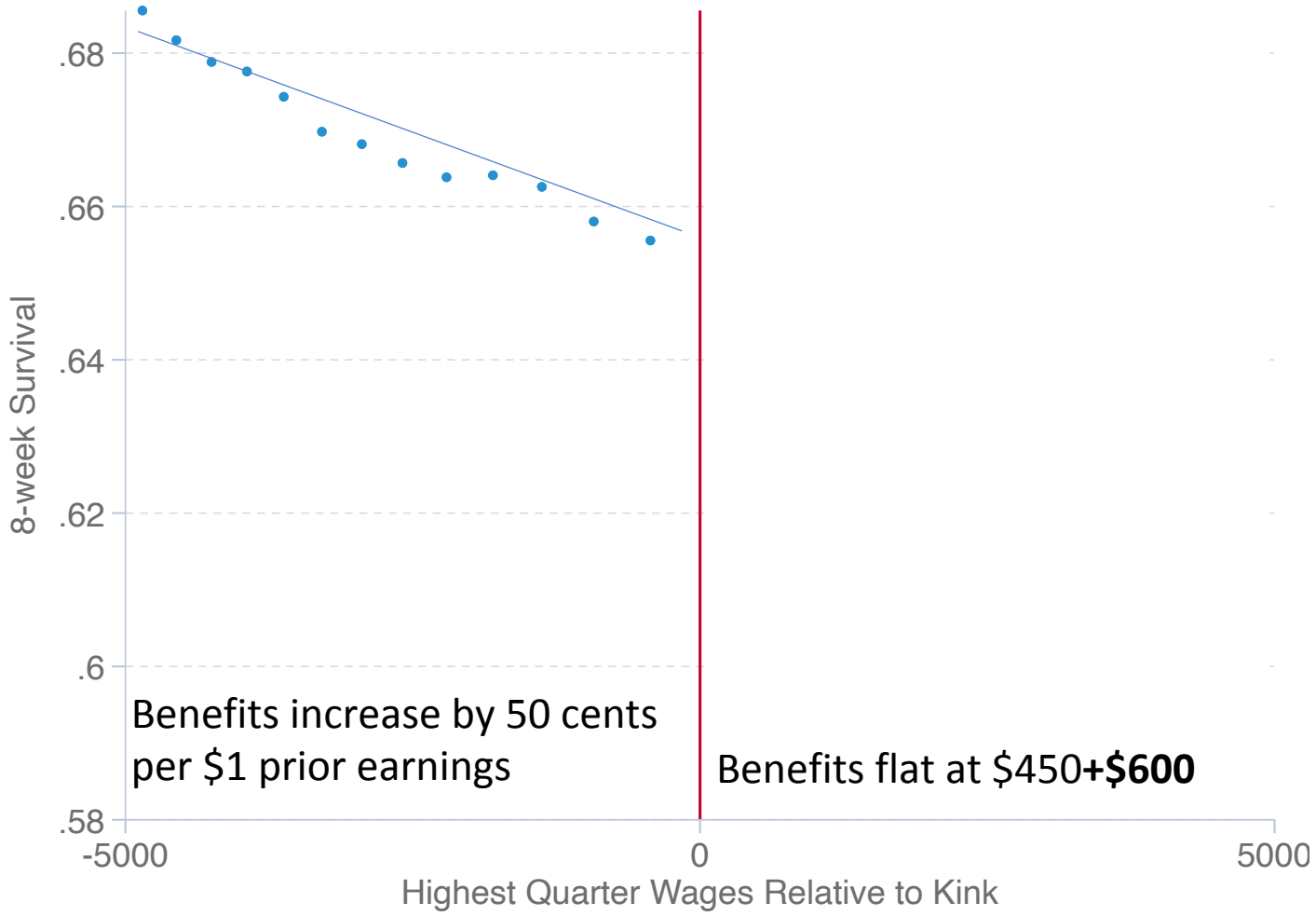
No Discernible Change in Density of UI Beneficiaries Around Kink



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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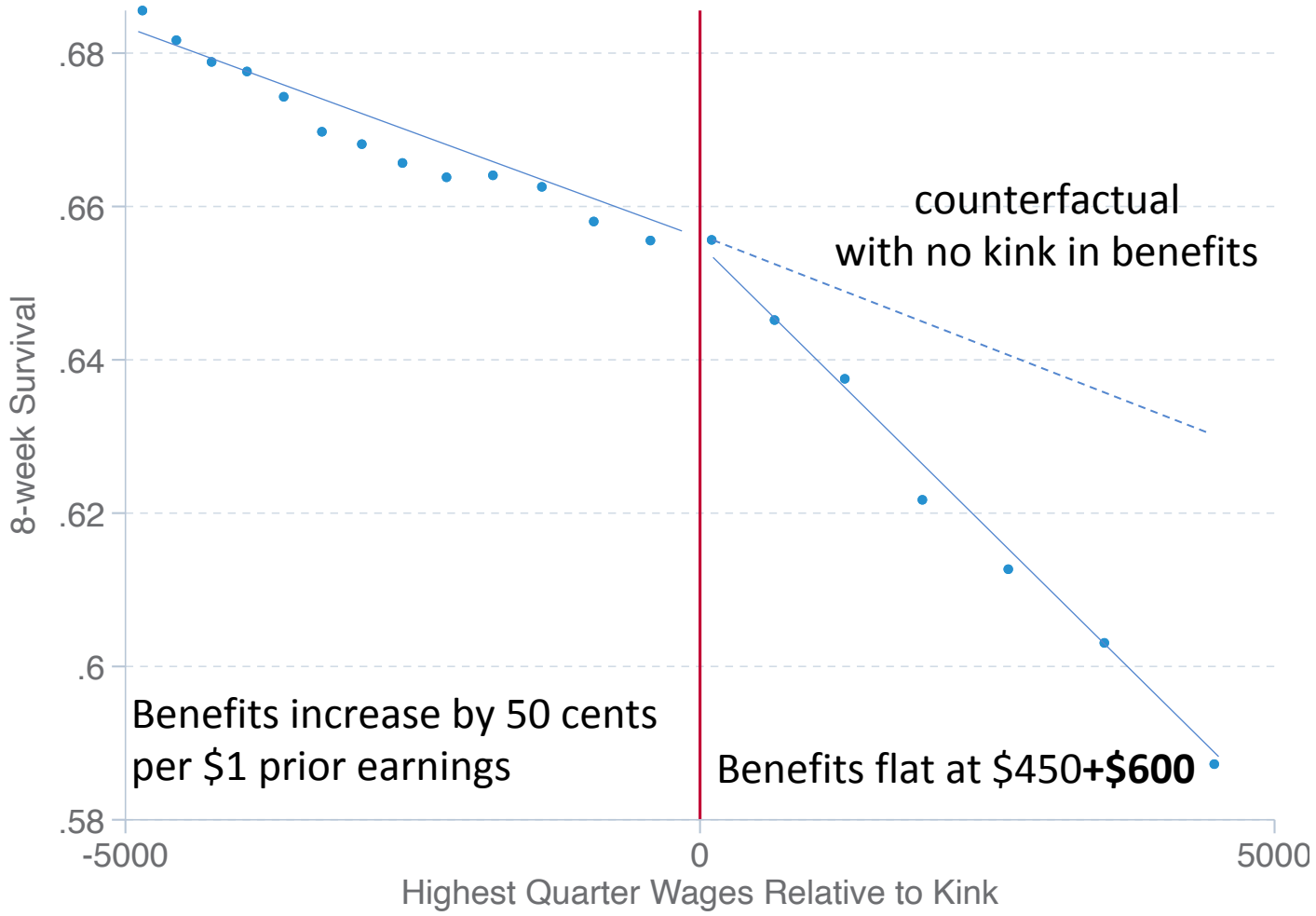

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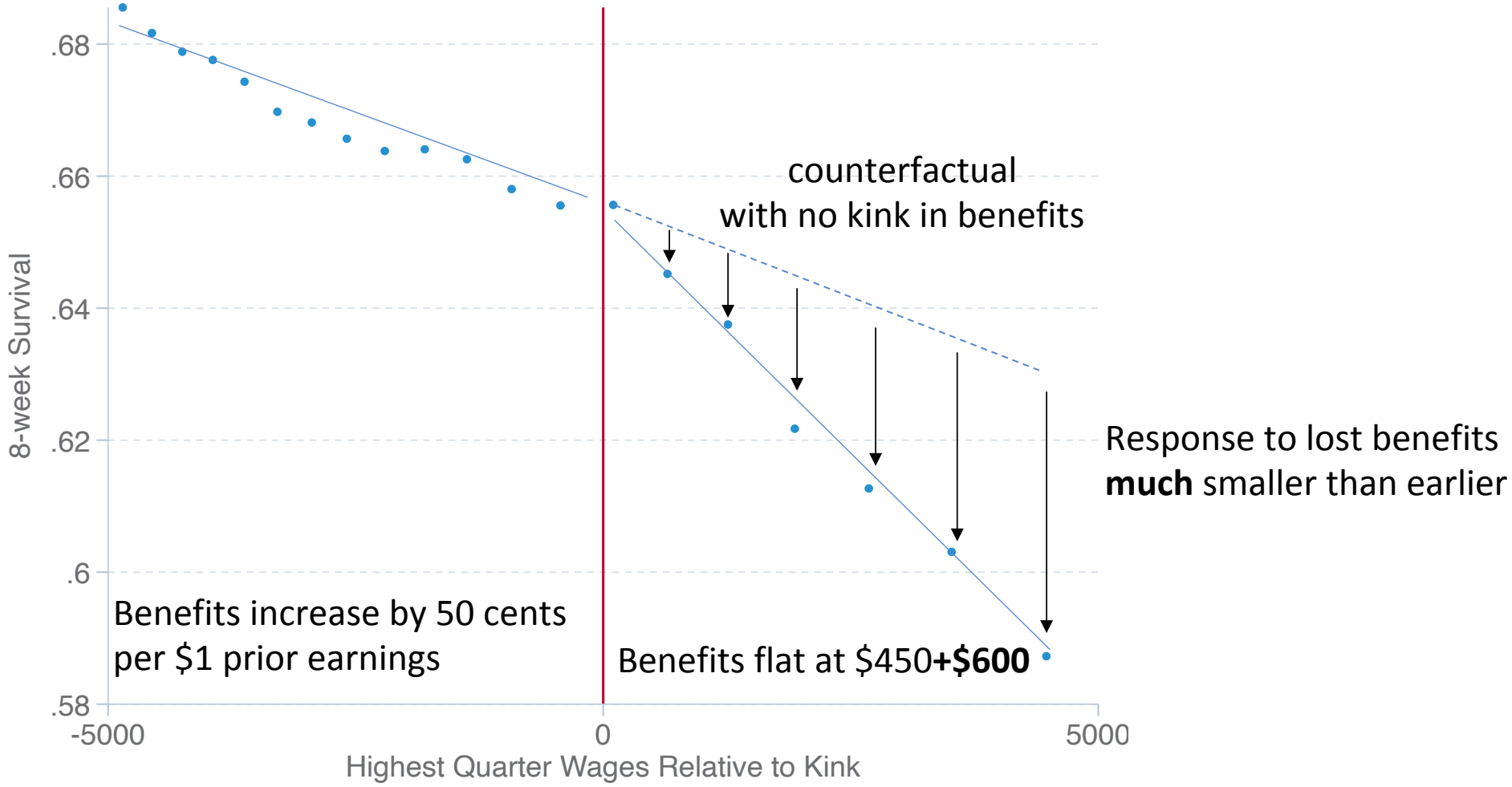

Response to lost benefits **much** smaller than earlier

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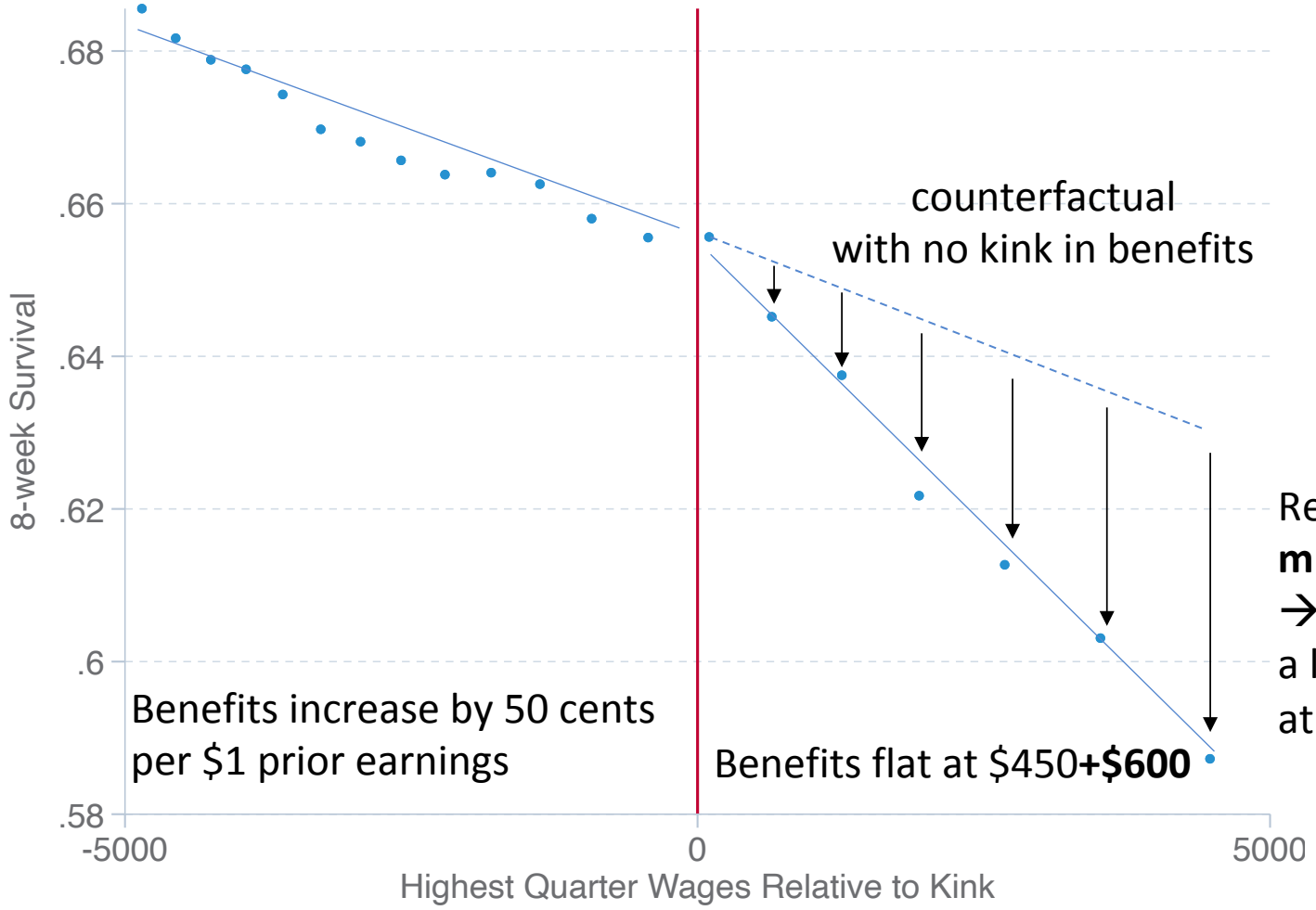
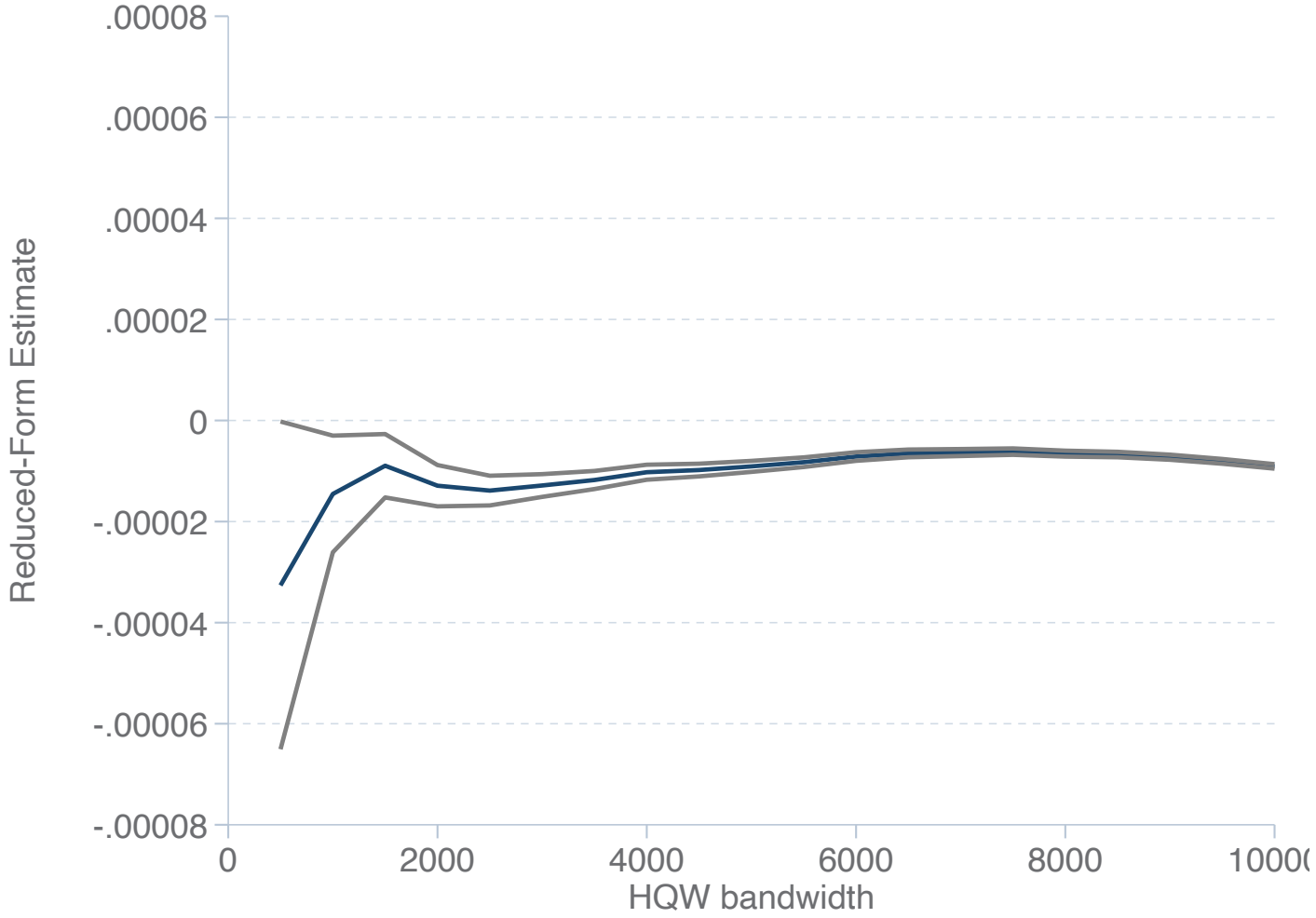
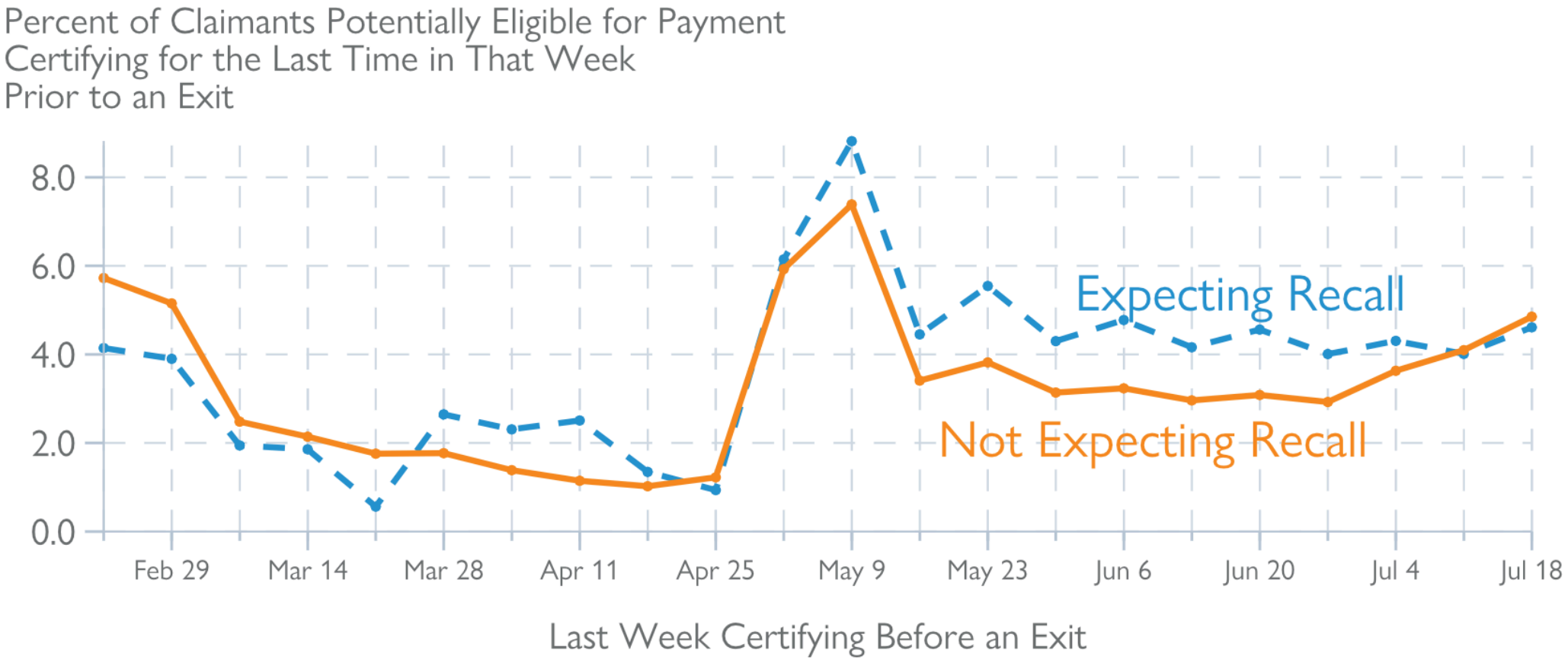


Response to lost benefits **much** smaller than earlier
→ But also coming from a larger base… let us look at the numbers

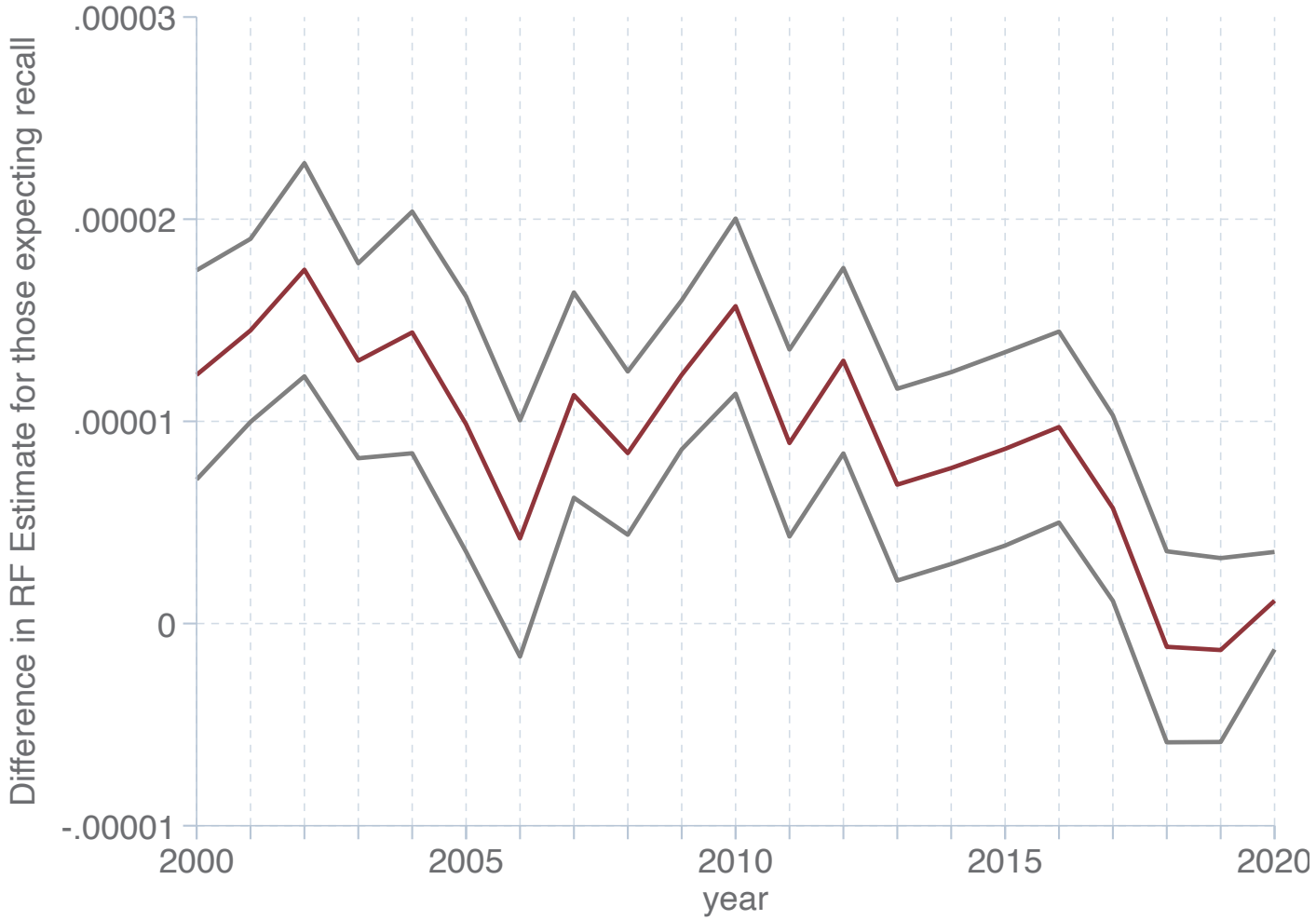
Robustness with Respect to Changes in Bandwidth



Role of Recall for Chances of Reemployment [BONUS]



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

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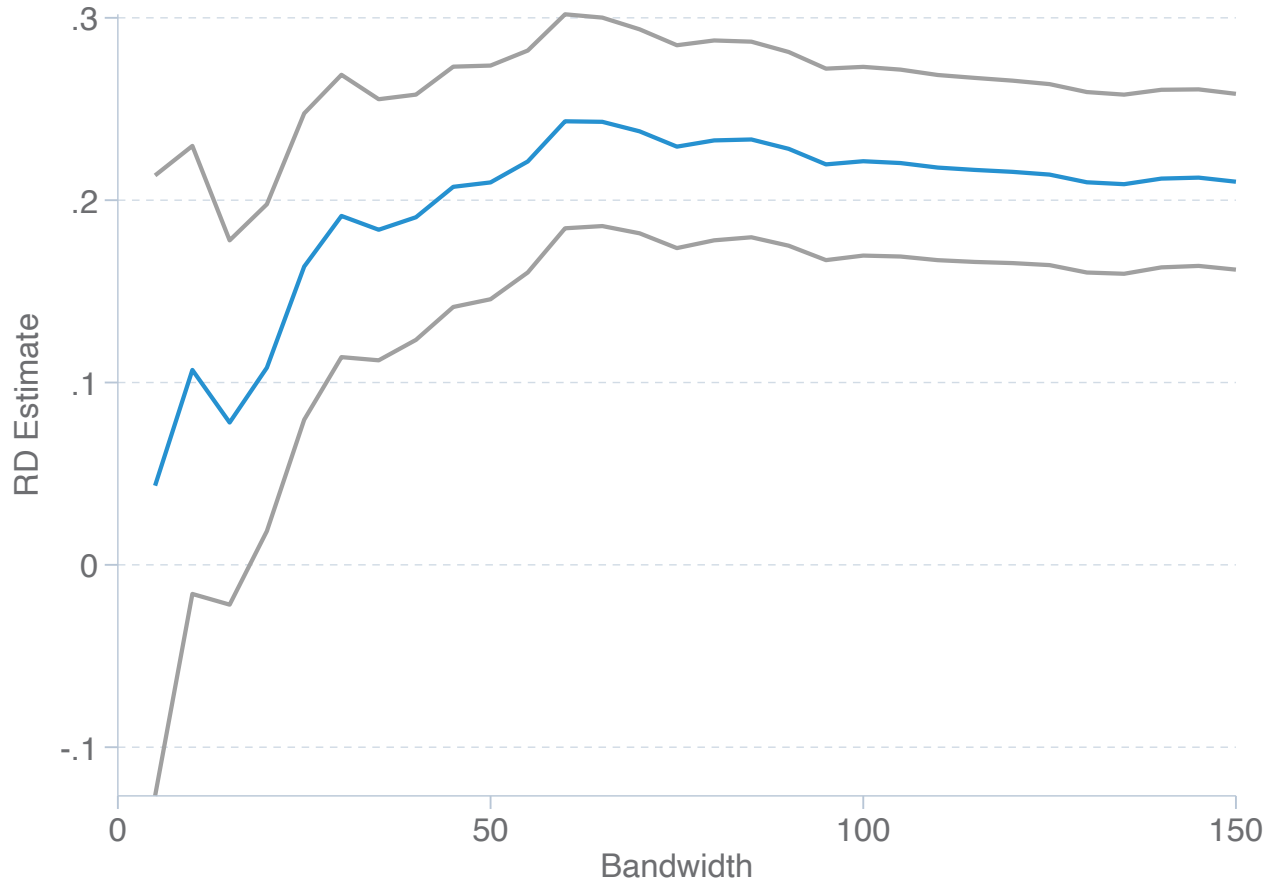

Variation in Effect by Calendar Week