

Online Appendix

Delegated Relief: Servicer Discretion and Racial Disparities in Mortgage Loss Mitigation

This appendix reports supplementary text-analysis projections and geographic distributions referenced in the main text. None of the paper’s inferences depend on these exhibits; they are provided to document the structure of the transcript data.

Sample construction and supporting estimates

Table OA.1: **Sample Reconciliation**

The unit of observation is the loan-month.

Month	Loans	Loan-months	Federally backed	Private-label	Forbearance
2020-01	19,418	19,418	6,688	12,730	0
2020-02	19,330	19,330	6,671	12,659	0
2020-03	19,250	19,250	6,667	12,583	8
2020-04	19,159	19,159	6,660	12,499	1,291
2020-05	19,087	19,087	6,657	12,430	57
<i>Total</i>	19,421	96,244	33,343	62,901	1,356

Unit of observation is the loan-month. The loan column reports distinct loans active in each month; the loan-month column is the estimation sample size.

Table OA.2: **Demographic Merge Rates**

Match rate of the external household database, by subgroup.

Subgroup	Loan-months	Race matched
All loans	96,244	89.8%
Federally backed	33,343	93.8%
Private-label	62,901	87.8%
Performing	68,517	90.1%
Non-performing	27,727	89.1%
<i>Across counties: min / median / max</i>		0.0 / 100.0 / 100.0%
Match rate of the external household demographic database. Systematic differences across subgroups would affect the racial comparison and are reported for transparency.		

Table OA.3: **Event Study: Federally Backed $\times$ Month**

February omitted. See Section ?? on why the pre-trend test is degenerate here: the outcome is identically zero before enactment.

Month	Gov $\times$ month	Std. error	<i>p</i>
2020-01	-0.0006***	(0.0001)	0.000
2020-02	0.000	(omitted)	
2020-03	0.0001	(0.0003)	0.738
2020-04	0.0678***	(0.0050)	0.000
2020-05	0.0033***	(0.0009)	0.000
Linear probability estimates of federally backed status interacted with month indicators, 2020-02 omitted. County fixed effects; standard errors clustered by county. Joint test that all pre-treatment interactions equal zero: $p = 0.000$. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.			

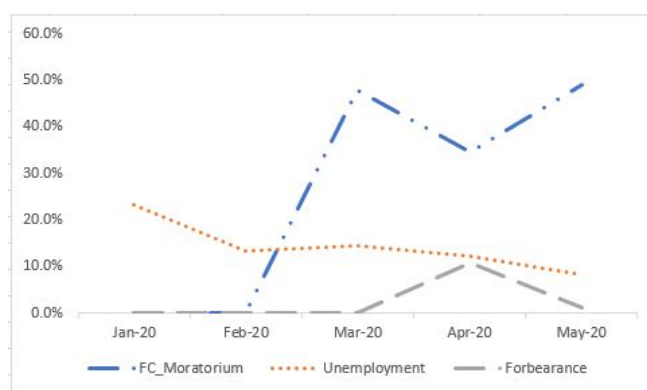


Figure OA.1: **Non-Performing Loans: Monthly Trend in COVID, Unemployment, and Income Curtailment Flags**

Foreclosure moratorium flags spike at end-March 2020. By May, most non-performing borrowers had been informed of forbearance ineligibility.

Term-space projections

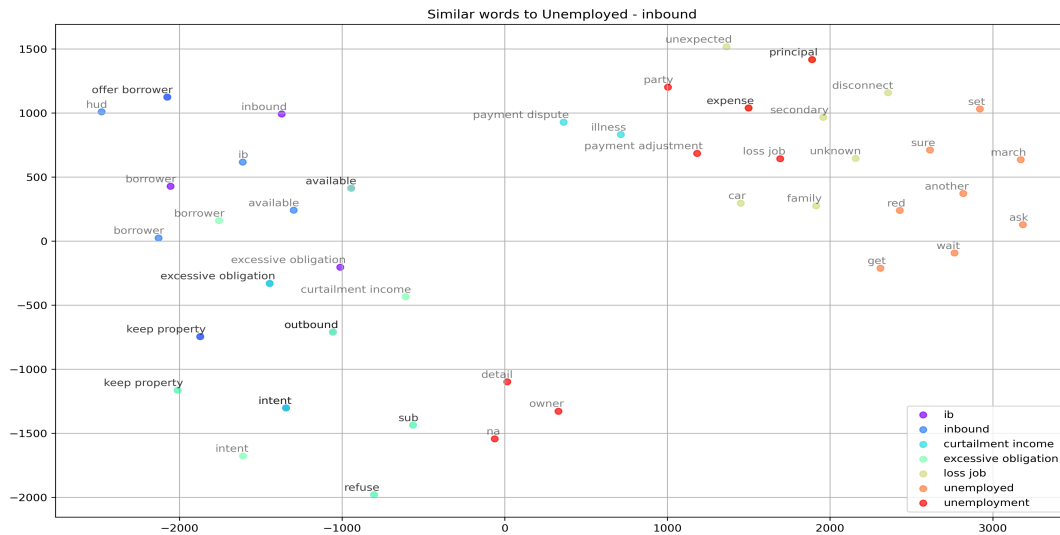


Figure OA.2: Terms associated with unemployment and borrower-initiated contact. Partial-adjustment and payment-dispute vocabulary appears alongside borrower-circumstance terms; refusal vocabulary appears in the lower-left cluster.

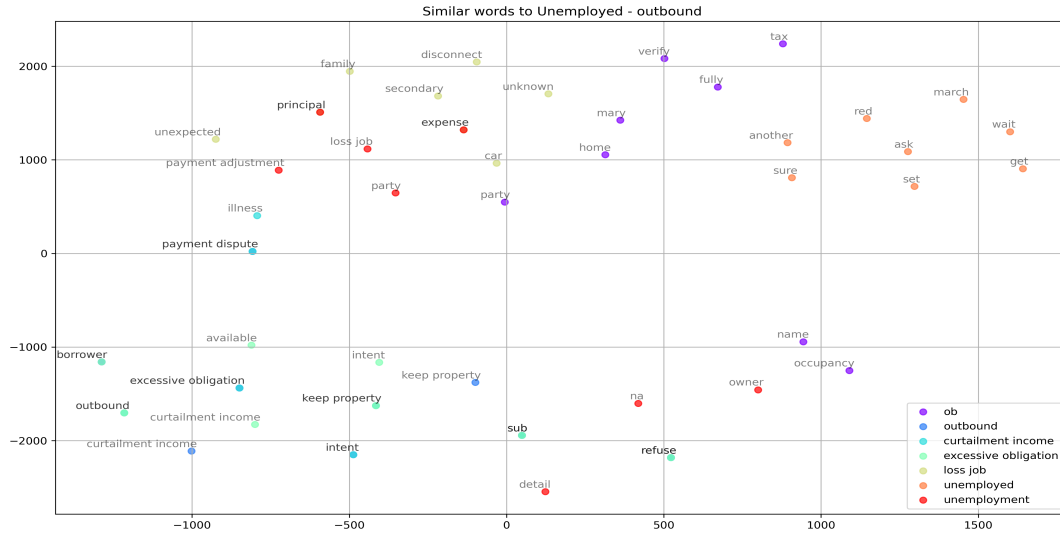


Figure OA.3: Terms associated with unemployment and servicer-initiated contact. Verification vocabulary dominates; the lower region reflects discussion of borrower financial circumstances and ensuing renegotiation.

Geographic distributions, April 2020

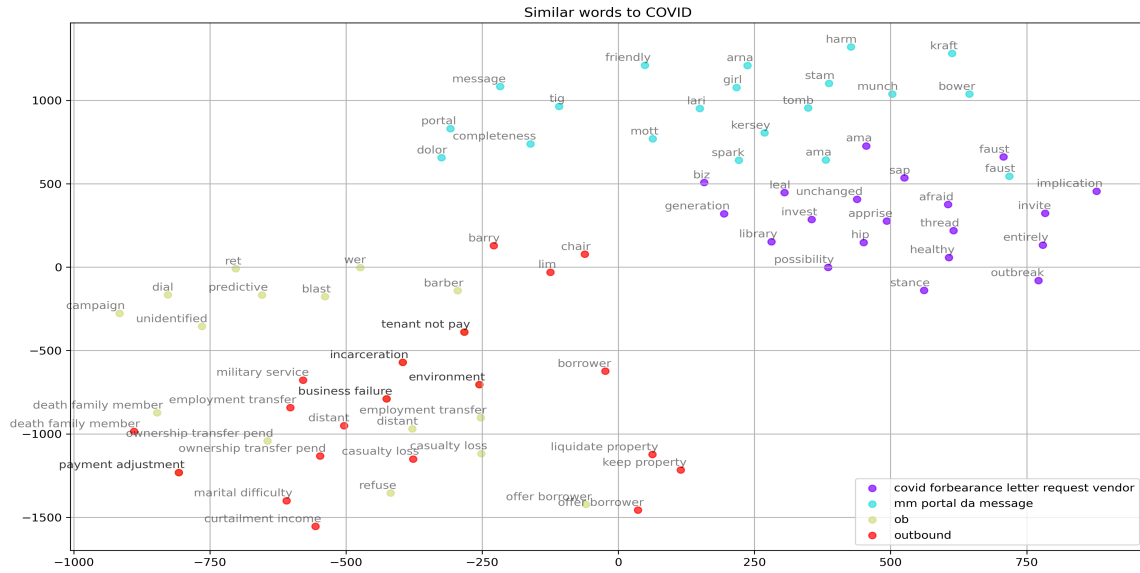


Figure OA.8: Outbound contact and COVID-19. Forbearance vocabulary is sparse relative to the inbound projections.

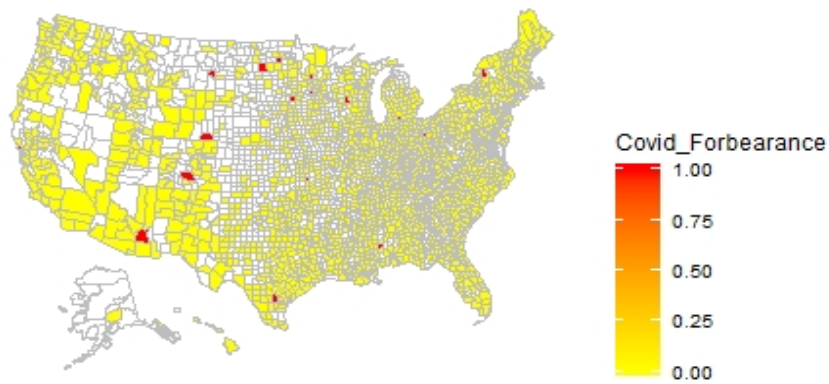


Figure OA.9: Share of loans with a COVID-19 forbearance discussion, by county.

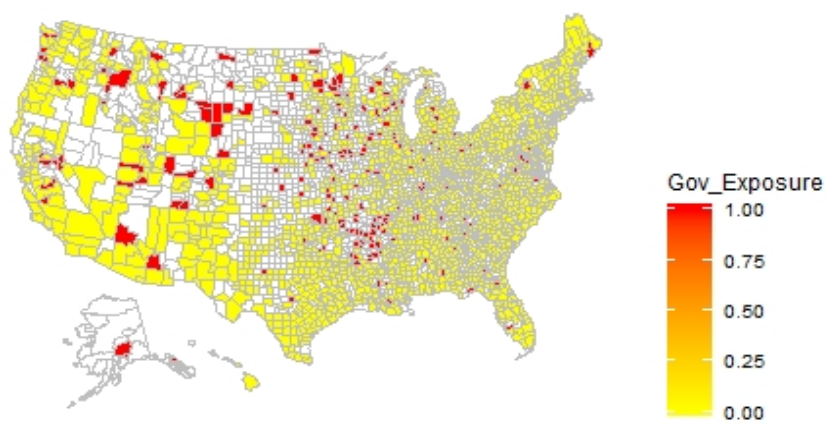


Figure OA.10: Share of federally backed loans among performing loans, by county.

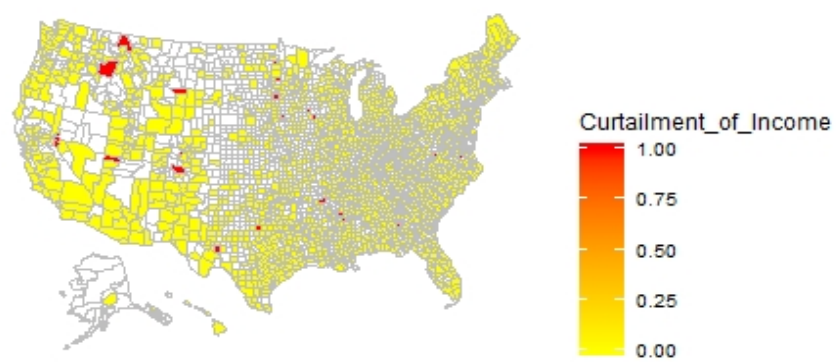


Figure OA.11: Share of borrowers reporting income curtailment, by county.