

# CORONAVIRUS: DON'T FORGET AMERICA'S 43.8 MILLION RENTERS

Amherst estimates that \$7-12 billion in rental payment support is needed to assist hourly workers for every month of COVID-19 related closures

### Executive Summary:

- The economic shock of temporary business closures designed to stop the spread will likely outrank all major crises in terms of potential unemployment spike and how quickly it will come.
- In the short run, leisure, hospitality, and transportation industries workers are expected to be affected the most as evidenced by the record spike of more than 3 million ("mn") unemployment filings. Manufacturing, construction and retail trade employees are likely to be vulnerable too.
- While no economic class will be untouched by COVID-19's silent wrath, lower middle income households mostly hourly wage workers are likely to bear the brunt.
- A disproportionate share of these affected hourly wage workers are renters who will need payment support in these trying times.
- We estimate that 15% of all rental households will be significantly and directly affected by pandemic containment efforts needing ~\$7 billion ("bn") in payment support to absorb rental burden for every month of COVID-19 related closures.
- In a stress scenario with more broad-based job losses/furloughing, up to 26% of rental households might need temporary payment support totaling ~\$12bn/month.
- If we assume the direct effects of the closures and resumption in activity last for 3 months, this translates into rental payment support needed of ~\$20-35bn. Over a 6-month period, the payment support needed would be ~\$40-70bn.
- We also break down the numbers for every single Congressional district in our analysis.

MARCH 2020

### The burden of COVID-19 related closures will be unequally distributed

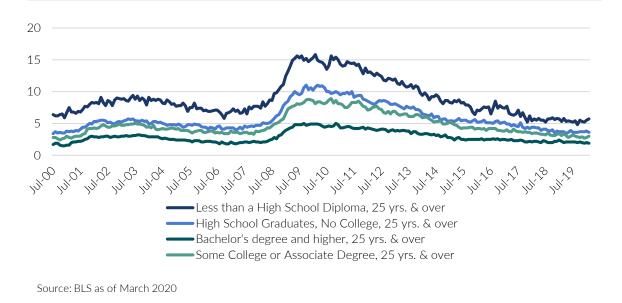
According to the Census Bureau's 2018 American Community Survey ("ACS"), there are ~43.8mn renter households in the U.S. paying a monthly median rent of \$1,058. More importantly, the same data suggests that the median annual income of a rental household was \$40.5k – roughly half of the \$78k median owner-occupied household income. As of 2018, out of the ~43.8mn renter households in U.S., 46.2% were paying more than 30% of their income in rents, and almost 1 in 4 faced severe burdens defined as having to spend more than 50% of their incomes on housing.

History tells us that the burden of a recession is unequally distributed. Low income, less educated households – more likely to be renters – pay a higher price. For example, in the 2008-2009 Great

Financial Crisis ("GFC"), the unemployment rate for American workers without college degrees jumped up to 16%, while those with bachelor's degrees saw a peak of 5% unemployment only (Figure 1).

We expect lower income households to be equally or even more negatively affected in the COVID-19 recession, as these workers are most exposed to hourly-income jobs that have come to a screeching halt.

#### FIGURE 1: WORKERS WITHOUT COLLEGE DEGREES ARE MORE LIKELY TO LOSE THEIR JOB IN RECESSION





### Some industries will be affected more than others

The first industries to be directly and greatly affected are leisure, hospitality, and transportation. Restaurants, theatres and hotels have either closed or are seeing very little traffic in many parts of the country. Retail and manufacturing are also likely to be affected greatly – non-essential retail stores have closed or about to close in many areas. We are not experts at predicting the detailed economic outcomes but it is not hard to estimate the first order effects of the closures.

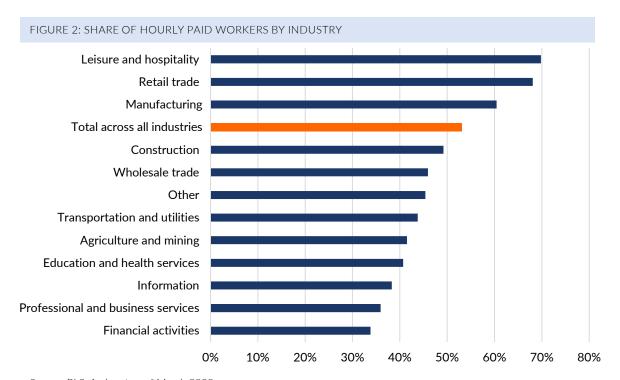
Let us look at share of employment that is supported by industries that would be most affected. Leisure and hospitality account for 11.1% of the non-farm employees of which an astounding 70% receive hourly wages. Retail trade, manufacturing and transportation sectors employ another 10.3%, 8.4% and 3.7% of non-farm workers respectively with more than 60% on hourly wages (Figure 2).\* Note that a meaningful proportion (12.9%) of manufacturing workers are occupied by food/beverage production and (26.5%) of retail employees work at food and self-care stores may remain employed. But even that does little to dent the sizeable temporary decline in employment in those industries.

Other industries are also likely to be affected in varying proportions. Discretionary spending of all kinds will slow down markedly and as unemployment increases, there could more negative cascading effects on the

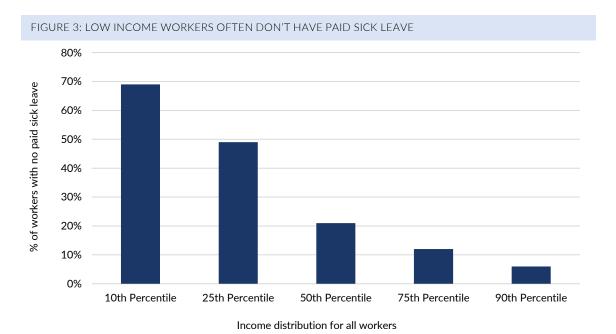
economy that we are not accounting for. What makes it worse is the vast majority of the losses will come from the lower economic strata. As Figure 3 shows, the percentage of workers in the lower income buckets are far less likely to get paid sick leave and more negatively impacted when they cannot continue working. Data strongly suggests that the vast majority of renters fall in the lower income side of the distribution and will face difficulties in making their payments during the COVID-19 related closures. Paid expanded family and medical leave guaranteed by Families First Coronavirus Response Act will provide some support to workers with kids, employed by small and mid-size companies (50-499)employees), but it leaves majority of renters behind.

<sup>\*</sup>Source: BLS, Amherst as of March 2020





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Source: BLS, Amherst as of March 2020



### Estimating rental payment support at the local level and in aggregate

To estimate local and aggregate effects on renters, we designed a simple methodology.

- We start with the number of renter households, distribution of employees by industry, and median rent in every census tract.
- We weight our analysis appropriately to give higher weights to areas with more renters and/or bigger share of employees in the affected industries.
- We further assume that primarily, it will be the hourly wage workers that are affected and come up with base and stress scenario by industry – leisure and hospitality get affected the most, information and health care see very little effect, if any.
- Finally, we aggregate the number of renters affected and estimate dollar assistance needed by mapping the most granular data to the level of every congressional district.

In the base case scenario, we estimate that 15% of all rental households will be affected by the closures and ~\$7.1bn per month in rental payment support will be needed (Figure 4). In a stress scenario, we estimate that 26% of the rental households will be affected translating into ~\$12.2bn/month of assistance needed. This should be viewed as a conservative estimate for the support needed for households as we are assuming a negligible effect from salaried renters who may also see layoffs and reduced pay resulting from the COVID-19 recession. Assuming a 3-month period of COVID-19 related closures/time to resumption in activity, this translates to ~\$20-35bn of rental payment support needed for renters – and double the amount if this extends to 6 months.

FIGURE 4: AMHERST BASE CASE ESTIMATES OF RENT SUPPORT NEEDED IN AGGREGATE DUE TO COVID-19 RELATED CLOSURES

53% of renter households receive hourly wages and pay about \$26bn rent annually

> Apply industry by industry estimate of the COVID-19 closures on hourly wage earners with no sick paid leave

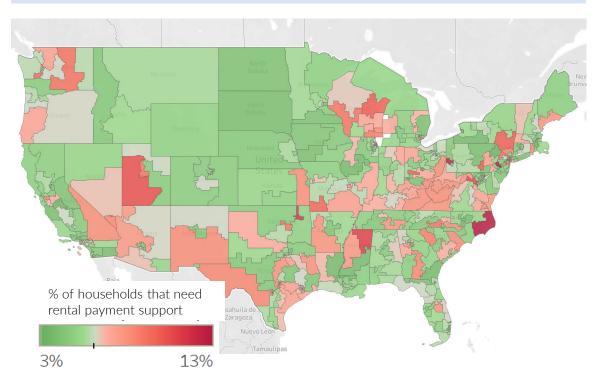
> > 15% of all renter households impacted equating to \$7.1bn in rent per month

### Not all areas are affected equally

The effect will be felt greatest in areas with sizeable renter population and employment concentrated in leisure and hospitality, transportation, manufacturing and construction sectors. While the analysis is not focused at getting accurate estimates for every Congressional district, it gives some interesting insights into the likely effect. For example, the estimates show that some areas will need

greater renter support than others - Las Vegas and Miami with their entertainment industry concentration, Atlanta with a sizeable amount of transportation jobs and the manufacturing-oriented states such as Ohio, Michigan, Indiana, Texas, and North Carolina.

FIGURE 5. % OF HOUSEHOLDS IN THE US THAT WILL NEED RENTAL PAYMENT SUPPORT IN THE BASE CASE SCENARIO (BY CONGRESSIONAL DISTRICT)





# Appendix: Rental payment support needed by congressional district

Congressional District	State	Number of affected renter households in the base case (thousands)	Number of affected renter households in the stress scenario (thousands)	Amount of rental payment support needed in the base case (\$ mn)	Amount of rental payment support needed in the stress scenario (\$ mn)
98	PR	47.5	80.6	22.9	39.04
13	NY	38.9	63.7	45.9	74.96
1	NV	38.4	57.6	36.1	54.23
34	CA	34.4	56.9	40.2	66.56
15	NY	34.3	57.9	36.2	60.92
7	NY	33.3	55.2	48.2	80.04
28	CA	32.3	52.0	47.8	77.21
8	NJ	31.9	56.0	41.4	72.98
3	ОН	27.9	48.3	25.0	43.44
12	CA	27.6	45.7	46.7	78.35
12	NY	26.4	44.7	53.4	90.90
14	NY	26.2	43.7	37.5	62.44
5	GA	25.9	43.3	27.0	45.29
37	CA	25.7	42.8	36.2	60.21
7	WA	25.4	43.4	37.4	64.10
3	NV	25.3	38.5	32.4	49.46
24	TX	25.2	43.5	29.1	50.37
8	NY	25.1	43.6	30.4	52.62
7	MA	25.0	42.7	35.8	61.40
11	ОН	24.7	42.7	18.6	32.25
1	CO	24.2	40.8	29.6	50.11
4	WI	24.1	42.0	20.7	36.09
24	FL	24.0	39.7	26.5	43.94
10	FL	23.6	37.1	27.5	43.15
4	IL	23.6	39.9	24.0	40.52
1	МО	23.5	40.4	20.4	35.12
6	NY	23.2	38.8	35.2	58.87
98	DC	23.1	36.0	34.6	53.70



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10	NY	23.0	39.2	42.3	72.18
2	LA	22.9	37.8	20.8	34.21
6	CA	22.6	37.8	25.3	42.38
21	TX	22.5	37.8	26.3	44.30
8	VA	22.4	35.9	40.8	65.22
13	CA	22.2	37.8	32.2	54.92
9	AZ	22.1	37.5	22.9	38.81
9	TX	21.9	37.9	21.7	37.61
12	NC	21.9	37.7	23.2	40.10
51	CA	21.9	36.2	26.8	44.40
7	AZ	21.7	37.0	19.8	33.91
43	CA	21.6	36.9	28.2	48.22
5	TN	21.3	36.1	21.4	36.33
5	MO	21.1	36.6	18.4	31.90
9	ОН	21.1	36.3	15.4	26.63
0	MT	21.1	35.5	16.7	28.16
30	TX	21.1	37.2	21.4	37.79
29	CA	21.0	35.7	28.5	48.36
7	IN	21.0	36.7	17.8	31.11
9	NY	20.8	36.6	28.5	49.97
18	TX	20.8	36.7	19.1	33.82
27	FL	20.7	34.2	27.5	45.74
14	FL	20.7	35.1	22.2	37.73
10	NJ	20.6	36.5	23.5	41.58
13	MI	20.5	35.5	16.4	28.50
3	VA	20.4	35.0	21.4	36.79
2	NV	20.4	33.1	20.2	33.03
47	CA	20.3	34.6	28.1	47.96
7	TX	20.3	34.8	23.6	41.08
3	OR	20.2	34.6	23.8	40.81



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2	TX	20.1	35.7	24.4	43.38
40	CA	20.1	35.7	23.4	41.52
9	TN	20.1	34.9	17.6	30.71
9	NJ	20.1	36.1	27.4	49.26
20	FL	19.9	33.7	24.9	42.32
5	OK	19.9	33.9	16.5	28.22
5	MN	19.9	34.0	20.1	34.69
1	NC	19.8	34.6	16.2	28.26
4	NV	19.5	30.5	21.6	33.79
33	CA	19.3	32.7	39.2	66.54
20	TX	19.2	32.5	18.6	31.34
1	HI	19.1	30.6	32.3	51.82
1	GA	19.0	32.1	18.3	30.82
1	OR	19.0	33.7	22.8	40.68
2	GA	19.0	32.8	14.4	24.67
3	KY	18.9	32.9	15.5	26.97
4	OR	18.8	32.5	17.3	29.90
6	KY	18.8	32.6	14.7	25.61
12	TX	18.7	32.7	20.0	35.03
7	FL	18.7	31.1	22.4	37.38
52	CA	18.5	31.2	34.7	58.87
1	OK	18.4	32.1	15.6	27.21
26	NY	18.4	31.8	14.5	25.07
3	AR	18.4	32.8	13.9	24.84
3	PA	18.3	31.7	19.6	33.96
1	ОН	18.2	31.9	14.8	26.11
24	CA	18.2	30.4	27.9	46.48
2	MD	18.2	31.2	24.0	40.97
2	OR	18.2	31.2	16.8	28.78
8	NC	18.2	31.1	16.2	27.58
46	CA	18.0	30.5	27.5	46.48
1	IL	18.0	31.5	17.2	30.25



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9	FL	18.0	28.8	20.2	32.18
14	MI	17.9	31.0	16.6	29.00
5	TX	17.9	31.2	16.6	29.07
53	CA	17.8	29.7	27.5	45.80
7	MO	17.8	30.7	13.3	22.87
6	AZ	17.8	30.2	20.8	35.45
4	FL	17.7	30.4	20.1	34.42
5	IL	17.7	30.7	23.5	40.66
10	ОН	17.5	30.5	13.9	24.19
2	VA	17.4	29.2	21.8	36.46
10	NC	17.4	30.5	13.9	24.33
4	GA	17.4	30.5	18.5	32.46
49	CA	17.3	29.3	31.7	53.79
2	AZ	17.3	28.8	15.2	25.44
10	TX	17.2	29.9	19.9	34.74
27	CA	17.1	29.2	25.6	43.77
6	WA	17.1	29.0	18.6	31.59
4	MS	17.1	28.4	14.2	23.48
3	NC	17.0	28.6	15.1	25.27
1	LA	16.9	28.7	16.5	27.87
3	CA	16.9	29.1	21.5	37.05
13	NC	16.9	29.7	13.6	24.06
4	LA	16.9	28.8	12.9	21.93
8	CA	16.8	28.6	18.1	30.88
2	MS	16.7	28.8	11.5	19.86
2	CO	16.7	28.0	22.5	37.69
44	CA	16.7	29.2	19.8	34.71
16	CA	16.7	29.1	15.7	27.35
4	NC	16.6	28.5	18.3	31.42
36	CA	16.6	27.3	18.5	30.36



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6	TX	16.6	29.4	17.8	31.54
13	FL	16.6	28.2	17.4	29.55
1	FL	16.6	27.5	17.0	28.18
5	OR	16.6	28.8	17.1	29.70
4	VA	16.6	28.3	16.6	28.35
29	TX	16.5	29.2	14.6	25.90
0	ND	16.5	29.0	13.4	23.57
18	PA	16.5	28.6	14.1	24.56
7	NC	16.5	28.2	14.0	23.84
20	NY	16.5	28.0	16.0	27.37
30	CA	16.4	27.7	27.6	46.55
2	CA	16.4	27.7	23.9	40.68
13	ОН	16.4	28.9	11.9	20.95
2	WI	16.4	28.6	15.9	27.79
7	IL	16.4	28.7	20.0	35.36
0	SD	16.2	28.4	11.7	20.44
2	PA	16.2	28.5	15.9	28.03
13	IL	16.1	27.7	12.7	21.77
17	TX	16.1	27.8	14.9	25.74
10	WA	16.0	27.3	19.4	32.92
16	NY	15.8	27.7	22.3	39.01
9	WA	15.8	27.2	22.2	38.48
2	WA	15.7	27.2	19.5	33.91
48	CA	15.7	27.0	29.8	51.38
5	CA	15.7	26.9	24.1	41.49
27	TX	15.6	26.9	14.5	24.85
7	CO	15.6	26.9	19.7	33.89
4	MD	15.6	26.0	22.6	37.75
5	CO	15.5	26.1	17.1	28.76
1	TN	15.5	26.7	10.4	17.96



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2	AL	15.4	26.7	12.0	20.58
14	TX	15.4	27.1	14.7	25.82
4	TN	15.4	27.4	13.0	23.09
6	NC	15.4	27.6	11.7	20.95
1	CA	15.4	26.1	15.5	26.41
4	OK	15.3	26.1	12.7	21.66
1	SC	15.3	25.9	17.9	30.39
9	MI	15.3	27.0	14.6	25.78
25	FL	15.3	26.6	19.3	33.62
6	VA	15.3	26.5	12.9	22.38
2	HI	15.2	24.3	24.0	38.12
5	NC	15.2	26.9	11.3	19.91
2	AR	15.2	26.6	12.3	21.51
0	DE	15.2	26.4	16.7	29.01
19	FL	15.2	25.4	18.4	30.61
1	NM	15.2	25.2	13.1	21.77
7	AL	15.2	26.1	11.2	19.20
3	ΑZ	15.1	25.7	13.8	23.57
4	KS	15.1	26.7	12.0	21.26
4	ОН	15.1	27.2	10.9	19.68
3	LA	15.1	25.6	11.9	20.16
16	TX	15.0	25.5	12.4	21.01
1	MA	15.0	26.4	13.3	23.34
5	WA	15.0	26.0	13.0	22.52
3	MA	15.0	26.6	17.0	30.22
45	CA	15.0	26.2	31.0	54.43
1	AR	15.0	27.0	9.9	17.87
17	CA	15.0	27.4	34.2	62.79
1	RI	15.0	26.1	14.5	25.18
35	TX	15.0	25.0	14.9	24.96
2	KY	14.9	26.5	10.9	19.25
4	SC	14.9	26.1	12.3	21.58
31	TX	14.8	25.6	16.2	28.00



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3	СО	14.8	25.0	14.1	23.69
14	CA	14.8	25.2	31.2	53.31
2	ID	14.8	25.8	11.9	20.75
12	MI	14.7	26.0	14.4	25.34
7	SC	14.7	24.9	11.9	19.93
9	IL	14.7	24.8	16.8	28.55
8	TN	14.7	26.1	12.4	22.13
9	CA	14.7	26.0	18.8	33.30
5	MA	14.6	25.8	22.8	40.42
15	FL	14.6	25.0	15.8	26.96
17	IL	14.6	26.0	10.0	17.81
23	FL	14.6	24.7	21.6	36.70
1	WI	14.6	26.2	13.2	23.82
2	FL	14.6	24.2	13.3	21.93
3	TN	14.6	25.7	11.2	19.73
12	GA	14.6	25.2	11.1	19.20
19	TX	14.6	25.0	12.7	21.76
5	FL	14.5	24.4	13.2	22.16
8	GA	14.5	25.1	11.1	19.08
20	CA	14.5	24.4	22.1	37.12
4	MO	14.5	25.3	11.4	19.76
12	IL	14.5	25.0	10.9	18.85
22	FL	14.4	24.3	20.5	34.62
3	TX	14.4	25.3	18.8	33.17
10	CA	14.4	25.8	17.2	30.87
8	ОН	14.3	25.3	11.5	20.43
7	ОН	14.3	25.5	10.3	18.42
11	GA	14.3	24.8	16.0	27.83
1	KY	14.3	25.4	9.5	16.93
6	GA	14.2	24.3	18.3	31.34
10	PA	14.2	24.9	13.4	23.49
1	CT	14.2	25.3	15.2	27.17



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3	WI	14.2	25.3	11.0	19.58
3	WA	14.2	24.9	15.0	26.51
25	NY	14.2	25.2	12.8	22.90
5	ОН	14.2	25.4	10.5	18.89
31	CA	14.2	25.1	18.5	32.75
2	KS	14.1	24.9	11.2	19.69
4	IN	14.1	25.4	11.5	20.68
2	NC	14.1	24.8	13.5	23.75
11	CA	14.1	24.1	22.9	39.41
2	MA	14.1	25.1	14.8	26.41
2	TN	14.1	24.4	11.4	19.84
50	CA	14.1	23.8	20.6	34.95
6	FL	14.1	23.8	14.6	24.82
2	IA	14.0	25.3	11.0	19.86
5	IN	14.0	24.5	13.0	22.79
0	AK	14.0	23.5	17.9	29.95
8	WI	14.0	25.1	10.4	18.66
22	CA	14.0	24.2	15.2	26.35
1	AZ	14.0	23.2	13.0	21.78
35	CA	13.9	24.7	18.9	33.45
1	WA	13.9	24.7	20.0	35.79
41	CA	13.9	24.5	18.8	33.18
6	WI	13.9	25.0	10.4	18.72
6	SC	13.8	23.6	11.6	19.62
1	KS	13.8	24.4	10.4	18.41
2	IN	13.8	25.1	10.2	18.67
3	CT	13.8	24.8	16.2	29.20
8	IN	13.8	24.3	9.9	17.44



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3	IA	13.8	24.4	11.7	20.76
32	TX	13.7	23.9	16.4	28.69
13	TX	13.7	23.7	11.0	19.08
1	ID	13.7	24.0	12.0	21.06
16	FL	13.7	23.2	16.4	27.92
5	NY	13.7	24.1	18.8	33.13
1	MS	13.7	24.6	10.5	18.89
2	ОН	13.7	24.3	10.5	18.70
14	GA	13.7	24.7	10.5	18.91
5	MI	13.7	24.0	9.9	17.53
1	AL	13.6	23.8	11.3	19.76
19	CA	13.6	23.7	25.1	43.84
23	CA	13.6	23.3	14.2	24.47
33	TX	13.6	23.8	11.8	20.69
11	NC	13.6	23.7	9.9	17.30
5	LA	13.6	23.3	9.5	16.25
9	IN	13.6	23.7	11.2	19.61
5	AL	13.5	23.7	10.1	17.62
18	CA	13.5	23.9	28.3	50.40
7	PA	13.5	24.0	14.1	24.94
2	UT	13.5	23.2	13.0	22.42
3	GA	13.5	24.0	12.6	22.42
3	KS	13.5	23.7	13.4	23.68
13	GA	13.4	23.2	14.2	24.57
4	MN	13.4	23.6	13.7	24.10
16	PA	13.4	23.5	9.9	17.31
3	SC	13.4	24.2	10.0	18.08
8	MA	13.4	23.4	19.2	33.65
4	IA	13.4	24.3	9.4	16.93
6	MI	13.4	23.6	10.0	17.74
1	IN	13.4	23.3	11.5	20.20
6	NJ	13.3	23.7	18.8	33.41



# Appendix: Rental payment support needed by congressional district

Congressional District	State	Number of affected renter households in the base case (thousands)	Number of affected renter households in the stress scenario (thousands)	Amount of rental payment support needed in the base case (\$ mn)	Amount of rental payment support needed in the stress scenario (\$ mn)
26	FL	13.3	22.5	19.1	32.17
2	NJ	13.3	21.8	14.2	23.40
6	IN	13.3	23.8	10.1	18.06
7	MD	13.3	22.6	14.3	24.42
3	FL	13.2	22.6	12.5	21.37
1	NE	13.2	23.3	10.7	18.79
3	IN	13.2	23.8	9.6	17.22
2	OK	13.2	22.9	8.8	15.26
38	CA	13.2	23.3	19.1	33.66
2	MI	13.2	23.5	10.8	19.34
3	AL	13.2	23.5	9.6	17.13
2	IL	13.2	23.3	12.5	22.20
3	MD	13.1	22.3	19.2	32.51
24	NY	13.1	23.1	10.7	18.85
6	MD	13.1	22.1	17.7	29.79
4	AZ	13.0	21.6	12.1	20.17
3	OK	13.0	22.5	9.9	17.09
7	GA	13.0	22.6	16.1	28.09
2	NE	13.0	22.9	11.9	21.00
18	FL	13.0	21.9	16.5	27.88
6	CO	12.9	22.2	17.2	29.61
21	NY	12.9	22.2	11.2	19.27
8	FL	12.9	21.9	13.7	23.37
5	WI	12.8	23.2	12.0	21.67
16	IL	12.8	23.0	10.5	18.87
8	MO	12.8	23.0	8.3	14.87
7	CA	12.8	21.7	16.8	28.53
12	FL	12.7	22.0	13.7	23.65
2	SC	12.7	22.0	11.6	20.10
6	TN	12.7	22.4	10.2	18.00



# Appendix: Rental payment support needed by congressional district

Congressional District	State	Number of affected renter households in the base case (thousands)	Number of affected renter households in the stress scenario (thousands)	Amount of rental payment support needed in the base case (\$ mn)	Amount of rental payment support needed in the stress scenario (\$ mn)
1	TX	12.7	22.3	10.4	18.38
2	CT	12.6	21.5	13.6	23.30
8	PA	12.6	22.4	10.3	18.25
11	NY	12.6	22.2	16.6	29.20
39	CA	12.6	21.9	21.2	36.93
32	CA	12.6	22.0	17.8	31.19
4	AR	12.5	22.3	8.2	14.64
1	IA	12.5	22.7	9.0	16.26
3	IL	12.5	21.3	12.3	21.09
9	MA	12.4	21.6	13.0	22.50
11	PA	12.4	22.2	12.2	21.87
5	CT	12.4	22.3	13.8	24.73
23	NY	12.4	21.9	9.5	16.80
9	NC	12.4	22.1	11.4	20.22
1	NH	12.4	21.7	13.7	24.18
15	CA	12.3	21.9	23.7	42.19
4	KY	12.3	21.8	9.7	17.22
1	ME	12.2	21.1	11.7	20.20
9	VA	12.2	21.6	8.5	15.08
10	GA	12.2	21.2	10.2	17.79
8	WA	12.1	21.4	15.9	28.23
8	TX	12.1	21.2	13.5	23.74
5	VA	12.1	21.4	10.6	18.55
22	NY	12.1	21.0	9.1	15.84
26	CA	12.1	20.6	20.7	35.42
21	FL	12.0	20.3	16.6	27.92
4	CO	12.0	21.0	13.6	23.74
7	TN	12.0	21.1	11.0	19.12

MARCH 2020

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# Appendix: Rental payment support needed by congressional district

Congressional District	State	Number of affected renter households in the base case (thousands)	Number of affected renter households in the stress scenario (thousands)	Amount of rental payment support needed in the base case (\$ mn)	Amount of rental payment support needed in the stress scenario (\$ mn)
4	CT	12.0	20.9	18.2	31.71
6	MA	12.0	20.8	15.5	26.85
13	PA	12.0	21.2	9.1	16.15
21	CA	12.0	20.7	11.0	19.04
4	AL	11.9	21.6	7.6	13.82
12	NJ	11.9	21.2	15.7	28.17
4	WA	11.9	21.0	10.1	17.89
11	TX	11.9	20.8	11.0	19.31
5	SC	11.8	21.1	9.5	16.87
1	NJ	11.7	20.7	12.7	22.45
3	MI	11.7	20.8	9.7	17.17
6	MO	11.7	20.9	8.9	15.85
12	PA	11.6	20.7	9.0	16.07
6	IL	11.5	20.5	14.8	26.38
9	GA	11.5	20.6	9.7	17.39
5	AZ	11.4	20.1	14.2	25.05
17	PA	11.4	20.2	9.7	17.28
6	ОН	11.4	20.5	7.6	13.69
8	MI	11.3	19.7	10.8	18.81
4	CA	11.3	18.9	14.7	24.64
4	TX	11.3	20.2	9.4	16.79
26	TX	11.3	19.4	14.0	24.29
10	IL	11.3	19.9	13.4	23.65
5	KY	11.3	20.1	6.7	11.91
0	VT	11.2	19.5	11.2	19.52
15	TX	11.1	19.5	8.6	15.01
1	MD	11.1	19.1	12.3	21.14
25	TX	11.1	19.1	11.6	19.99
6	LA	11.0	19.2	10.5	18.17
7	WI	11.0	19.7	7.9	14.18
1	MI	10.9	18.5	7.7	13.09
2	NH	10.9	19.3	11.3	20.03

# Appendix: Rental payment support needed by congressional district

Congressional District	State	Number of affected renter households in the base case (thousands)	Number of affected renter households in the stress scenario (thousands)	Amount of rental payment support needed in the base case (\$ mn)	Amount of rental payment support needed in the stress scenario (\$ mn)
19	NY	10.9	18.9	10.5	18.25
5	PA	10.9	19.0	11.7	20.63
7	VA	10.8	18.8	12.8	22.19
3	NE	10.8	19.6	7.4	13.33
6	PA	10.8	19.4	12.0	21.54
25	CA	10.8	18.8	17.1	29.81
6	AL	10.7	18.9	9.9	17.42
3	MS	10.7	18.8	8.3	14.53
8	MD	10.7	17.6	17.9	29.25
17	NY	10.7	18.5	16.9	29.27
14	PA	10.7	18.9	7.5	13.30
17	FL	10.6	18.2	10.3	17.67
8	IL	10.6	18.7	13.1	23.17
11	VA	10.5	17.5	19.4	32.21
9	PA	10.5	19.0	8.6	15.48
15	IL	10.5	18.9	6.9	12.42
1	VA	10.5	17.8	14.0	23.74
12	ОН	10.4	18.4	9.5	16.87
11	MI	10.4	18.7	11.4	20.42
36	TX	10.4	18.5	9.5	16.93
0	WY	10.4	17.7	9.0	15.31
3	MO	10.4	18.3	8.1	14.33
11	IL	10.4	18.4	12.7	22.61
18	NY	10.3	18.1	13.5	23.51
4	MI	10.3	18.0	7.5	13.15
4	MA	10.3	18.3	12.6	22.57
1	MN	10.2	18.6	7.9	14.45
1	WV	10.2	17.6	7.2	12.42
2	ME	10.2	18.1	7.4	13.10
15	PA	10.2	18.3	6.8	12.29
1	UT	10.2	17.9	9.4	16.35
3	NM	10.2	16.9	9.1	15.08



# Appendix: Rental payment support needed by congressional district

Congressional District	State	Number of affected renter households in the base case (thousands)	Number of affected renter households in the stress scenario (thousands)	Amount of rental payment support needed in the base case (\$ mn)	Amount of rental payment support needed in the stress scenario (\$ mn)
7	MI	10.1	18.2	8.1	14.51
4	PA	10.1	18.1	12.7	22.89
28	TX	10.1	17.5	9.0	15.55
2	RI	10.0	17.4	10.3	17.89
3	UT	10.0	17.5	10.8	18.89
8	MN	9.9	17.0	7.5	13.02
2	WV	9.9	17.1	7.7	13.23
22	TX	9.9	17.4	12.1	21.50
42	CA	9.9	17.1	16.4	28.51
27	NY	9.8	17.4	7.9	13.96
11	FL	9.7	16.7	9.4	16.00
15	ОН	9.7	17.3	8.2	14.63
7	MN	9.7	17.6	6.8	12.39
3	MN	9.6	17.3	11.8	21.26
14	ОН	9.6	17.3	8.7	15.65
4	UT	9.5	16.8	10.5	18.57
8	AZ	9.4	16.4	11.5	20.04
1	PA	9.4	16.9	11.6	20.82
3	WV	9.3	16.1	6.1	10.51
34	TX	9.2	16.0	6.6	11.56
23	TX	9.1	15.7	7.9	13.70
10	MI	9.1	16.2	8.0	14.26
2	MN	9.0	15.9	9.8	17.28
4	NJ	8.7	15.4	12.3	21.77
2	MO	8.7	15.3	8.9	15.78
10	VA	8.6	14.7	14.1	23.83
18	IL	8.6	15.4	6.6	11.88
5	NJ	8.5	15.3	12.5	22.43



# Appendix: Rental payment support needed by congressional district

Congressional District	State	Number of affected renter households in the base case (thousands)	Number of affected renter households in the stress scenario (thousands)	Amount of rental payment support needed in the base case (\$ mn)	Amount of rental payment support needed in the stress scenario (\$ mn)
16	ОН	8.4	15.0	7.3	13.08
7	NJ	8.2	14.6	12.0	21.48
3	NJ	8.0	14.0	11.1	19.44
6	MN	7.9	14.3	7.5	13.57
5	MD	7.9	13.2	12.3	20.56
2	NM	7.8	13.2	5.9	9.99
11	NJ	7.3	13.1	11.8	21.06
4	NY	6.9	12.1	11.7	20.51
1	NY	6.5	11.7	11.3	20.24
14	IL	6.0	10.8	7.0	12.64
2	NY	5.7	10.3	9.4	17.05
3	NY	5.4	9.6	10.0	17.77



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