

Table 1: Replication of Ouazad and Kahn (2022) using the LLPW Suggested Data Cleaning Rules

Dependent Variables:		approved			originated			securitized		
Model:		20% (1)	10% (2)	5% (3)	20% (4)	10% (5)	5% (6)	20% (7)	10% (8)	5% (9)
<i>Variables</i>										
Below Conforming Limit \times Treated \times Time -4		0.0034 (0.0081)	0.0129 (0.0137)	0.0203 (0.0187)	-0.0029 (0.0087)	0.0204 (0.0152)	0.0497** (0.0174)	0.0103 (0.0185)	0.0081 (0.0159)	0.0170 (0.0171)
Below Conforming Limit \times Treated \times Time -3		-0.0072 (0.0096)	0.0058 (0.0067)	0.0068 (0.0184)	-0.0086 (0.0123)	0.0156 (0.0118)	0.0306 (0.0283)	0.0004 (0.0142)	-0.0234 (0.0198)	-0.0220 (0.0315)
Below Conforming Limit \times Treated \times Time -2		-0.0089 (0.0059)	-0.0093 (0.0059)	-0.0044 (0.0058)	-0.0060 (0.0067)	-0.0059 (0.0056)	-0.0002 (0.0080)	0.0010 (0.0144)	-0.0152 (0.0138)	-0.0233 (0.0158)
Below Conforming Limit \times Treated \times Time +0		-0.0079 (0.0055)	0.0018 (0.0093)	0.0040 (0.0084)	-0.0120 (0.0070)	0.0004 (0.0127)	0.0068 (0.0135)	0.0022 (0.0088)	-0.0016 (0.0103)	0.0070 (0.0112)
Below Conforming Limit \times Treated \times Time +1		0.0058 (0.0067)	0.0235** (0.0091)	0.0240*** (0.0080)	0.0009 (0.0102)	0.0177 (0.0120)	0.0282** (0.0100)	-0.0017 (0.0161)	-0.0068 (0.0193)	0.0177 (0.0222)
Below Conforming Limit \times Treated \times Time +2		0.0066 (0.0055)	0.0229** (0.0081)	0.0349*** (0.0086)	0.0118 (0.0102)	0.0142 (0.0109)	0.0369** (0.0128)	-0.0171 (0.0155)	-0.0233 (0.0202)	-0.0076 (0.0225)
Below Conforming Limit \times Treated \times Time +3		0.0372*** (0.0078)	0.0515*** (0.0095)	0.0550*** (0.0158)	0.0328** (0.0125)	0.0478*** (0.0108)	0.0495** (0.0179)	0.0354* (0.0197)	0.0425** (0.0198)	0.0610** (0.0282)
Below Conforming Limit \times Treated \times Time +4		0.0283 (0.0162)	0.0276 (0.0182)	0.0272 (0.0314)	0.0060 (0.0126)	0.0142 (0.0139)	0.0143 (0.0366)	0.0729 (0.0474)	0.0902* (0.0496)	0.1269** (0.0546)
<i>Fixed-effects</i>										
Year		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5-digit Zip Code		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Disaster		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Fit statistics</i>										
Observations		2,572,574	1,436,349	897,489	2,572,574	1,436,349	897,489	2,835,727	1,590,131	1,004,977
R ²		0.05960	0.06287	0.06359	0.06176	0.06362	0.06391	0.12886	0.10934	0.08322
Within R ²		0.00403	0.00433	0.00437	0.00342	0.00352	0.00349	0.08110	0.06046	0.03531

Clustered (5-digit Zip Code & year) standard-errors in parentheses

Signif. Codes: ***, 0.01, **, 0.05, *, 0.1

Table 2: Replication of Ouazad and Kahn (2022) – Narrower Window

Dependent Variables:		approved			originated			securitized		
Model:	4% (1)	3% (2)	2% (3)	4% (4)	3% (5)	2% (6)	4% (7)	3% (8)	2% (9)	
<i>Variables</i>										
Below Conforming Limit \times Time -4 \times Treated	0.0151 (0.0141)	0.0340** (0.0138)	0.0478* (0.0262)	0.0469** (0.0202)	0.0713*** (0.0226)	0.0692** (0.0316)	0.0371* (0.0181)	0.0484** (0.0217)	0.0282 (0.0311)	
Below Conforming Limit \times Treated \times Time -3	0.0058 (0.0190)	0.0144 (0.0202)	0.0055 (0.0252)	0.0248 (0.0350)	0.0302 (0.0341)	0.0160 (0.0370)	-0.0127 (0.0303)	-0.0123 (0.0345)	-0.0092 (0.0368)	
Below Conforming Limit \times Treated \times Time -2	-0.0037 (0.0027)	0.0013 (0.0099)	-0.0014 (0.0132)	-0.0010 (0.0148)	0.0062 (0.0156)	0.0013 (0.0211)	-0.0172 (0.0175)	-0.0199 (0.0191)	-0.0206 (0.0193)	
Below Conforming Limit \times Treated \times Time +0	-7.45×10^{-5} (0.0095)	0.0014 (0.0138)	-0.0029 (0.0131)	-0.0024 (0.0187)	0.0012 (0.0226)	-0.0114 (0.0256)	0.0130 (0.0148)	0.0058 (0.0171)	0.0044 (0.0236)	
Below Conforming Limit \times Treated \times Time +1	0.0272*** (0.0033)	0.0370*** (0.0105)	0.0369** (0.0133)	0.0316* (0.0167)	0.0479** (0.0187)	0.0462 (0.0273)	0.0341 (0.0260)	0.0330 (0.0241)	0.0385 (0.0264)	
Below Conforming Limit \times Treated \times Time +2	0.0430*** (0.0135)	0.0473* (0.0224)	0.0506* (0.0251)	0.0362** (0.0166)	0.0403 (0.0233)	0.0348 (0.0362)	0.0033 (0.0265)	0.0044 (0.0240)	0.0201 (0.0222)	
Below Conforming Limit \times Treated \times Time +3	0.0575*** (0.0167)	0.0606*** (0.0145)	0.0626*** (0.0213)	0.0558** (0.0234)	0.0643** (0.0286)	0.0530 (0.0304)	0.0732** (0.0285)	0.0707** (0.0310)	0.0917** (0.0335)	
Below Conforming Limit \times Treated \times Time +4	0.0252 (0.0349)	0.0250 (0.0388)	0.0314 (0.0420)	0.0027 (0.0419)	-0.0021 (0.0461)	0.0032 (0.0489)	0.1440** (0.0543)	0.1506** (0.0550)	0.1872*** (0.0617)	
<i>Fixed-effects</i>										
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
5-digit Zip Code	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Disaster	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
<i>Fit statistics</i>										
Observations	755,908	671,790	574,089	755,908	671,790	574,089	854,091	762,323	657,406	
R ²	0.06524	0.06536	0.06503	0.06473	0.06380	0.06258	0.08069	0.07057	0.06106	
Within R ²	0.00542	0.00523	0.00557	0.00442	0.00424	0.00443	0.03302	0.02500	0.01970	

Clustered (5-digit Zip Code & year) standard-errors in parentheses
Signif. Codes: ***, 0.01, **, 0.05, *, 0.1

Table 3: NaN values for the 'high cost' Dummy Variable: Only in the Sample for LLPW Table 7

This Figure analyzes the 'high_cost' variable in Ouazad and Kahn (2022) (named highcost), in the sample for Table 5 of LLPW, in the sample Table 7 of LLPW. This is verifiable in the RFS Dataverse of LLPW posted in August 2023 and the RFS Dataverse of Ouazad and Kahn (2022) posted in December 2021. In LLPW, the 'high_cost' variable is a key part of the match of the sample with high cost conforming loan limits.

Sample	NaN	0	1
OK (2022)	0	1282735	524582
LPW (2023) Table 5	0	2552216	1181257
LPW (2023) Table 7	32030	2545637	2599249

NaN values appear in the sample for Table 7. This is the Table that does not find the results of Ouazad and Kahn (2022).

Table 4: LLPW Table 7 – NaN values for the 'high cost' Dummy Variable, by Action Taken

This Figure analyzes the 'high_cost' variable of the sample for Table 7 of LLPW. This is verifiable in the RFS Dataverse of LLPW. The 'high_cost' variable is a key part of the match of the sample with high cost conforming loan limits.

Action Taken	Description	NaN	0	1
1	Loan originated	19991	1613850	1598895
2	Application approved but not accepted	1942	143029	161299
3	Application denied	3764	215109	229445
6	Loan purchased by the institution	6333	573649	609610

Table 5: LLPW Table 7 – NaN values for the 'high cost' Dummy Variable by State

State FIPS Code	State Name	NaN	0	1
01	Alabama	737	63614	0
09	Connecticut	0	101043	88305
10	Delaware	0	26619	0
12	Florida	15623	694424	22712
13	Georgia	1591	339425	440
22	Louisiana	766	46633	0
23	Maine	252	19268	0
24	Maryland	157	16685	371999
25	Massachusetts	35	69800	424192
28	Mississippi	773	18380	0
33	New Hampshire	286	24960	21529
34	New Jersey	16	88302	496638
36	New York	724	47997	647583
37	North Carolina	1291	253490	185
44	Rhode Island	79	0	32724
45	South Carolina	409	97329	0
48	Texas	2187	610148	0
51	Virginia	7104	27520	492942

Figure 1: LLPW Table 7 – NaN values for the 'high cost' Dummy Variable Bunch at the Conforming Loan Limit

This Figure analyzes the presence of NaNs in the 'high_cost' variable of the sample for Table 7 of LLPW. This is verifiable in the RFS Dataverse of LLPW. In LLPW, the 'high_cost' variable is a key part of the match of the sample with high cost conforming loan limits.

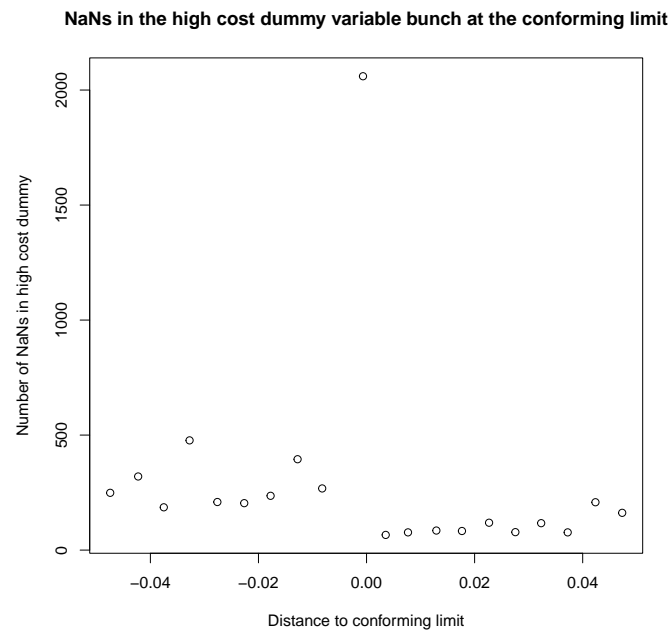


Table 6: ZIPs Arbitrarily Excluded in the RFS Dataverse Code of LLPW (2024) Are Present in Ouazad and Kahn (2022)

Lines 140–143 of the 02_generateRegressionSample.m of LLPW arbitrarily exclude 20 ZIP codes. The code claims that these ZIP codes are excluded in Ouazad and Kahn (2022). The RFS Dataverse of Ouazad and Kahn (2022) dated December 6, 2021, shows that these observations are present in the sample and are part of the treatment group. Column 4 shows which hurricane hit the ZIP code in Ouazad and Kahn’s (2022) sample.

5-digit ZIPs Excluded by LPW	Treated in OK (2022)	State FIPS	Hurricane in OK (2022)
70615	Yes	22	RITA 2005
77702	Yes	48	RITA 2005
21085	Yes	24	SANDY 2012
11096	Yes	36	SANDY 2012
19703	Yes	10	SANDY 2012
10474	Yes	36	SANDY 2012
21017	Yes	24	SANDY 2012
10303	Yes	36	SANDY 2012
70094	Yes	22	KATRINA 2005
39576	Yes	28	KATRINA 2005
70094	Yes	22	GUSTAV 2008
77702	Yes	48	IKE 2008
77530	Yes	48	IKE 2008
77480	Yes	48	IKE 2008
77058	Yes	48	IKE 2008
77591	Yes	48	IKE 2008
77506	Yes	48	IKE 2008
23664	Yes	51	IRENE 2011
23602	Yes	51	IRENE 2011
23661	Yes	51	IRENE 2011
23314	Yes	51	IRENE 2011
27981	Yes	37	IRENE 2011

The table below shows the average distance (in logs) to the conforming loan limit of the loans in these excluded ZIPs. These ZIPs are more likely to have conforming loans.

Sample	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
Excluded ZIPs	-0.10	-0.08	-0.04	-0.03	0.01	0.10
Rest of the sample	-0.11	-0.06	-0.01	-0.02	0.00	0.10

Table 7: The Independent Replication of LLPW, Table 8, has Non-Mutually Exclusive Time Dummies

The independent replication package (not Tables 5–7) was accessed in April 2023 and is stored on our cloud at <https://tinyurl.com/yy7s7b9c>. Since the RFS Dataverse of LLPW does not include the code for Table 8, we assume this is consistent with it. This table presents, for the treatment group only, the sum of the indicator variables for the number of years relative to the hurricane. In a well-designed event study, each treated observation should have only one time dummy variable equal to 1. Except for the reference time period (e.g. -1). In contrast, in the independent replication, more than 93,000 observations are in the treatment but have no corresponding time dummy. And more than 6,200 observations have multiple time dummies equal to 1 at the same time. There is no dummy variable for times before -4 and no dummy variable for times after $+4$.

	$\sum_{k=-4}^{k=+4} \mathbf{1}(Time_{it} = k)$			
	0	1	2	3
Number of Treated Observations	93,231	35,885	6,057	161

We rely on an archive shared by AP in early 2023.

Table 8: The Independent Replication of LLPW, Table 8, has an Incorrect Coding of Hurricane Treatment Years

This table presents the analysis of the file “originated_05_CT_treatment.csv” provided by the LaCour-Little coauthorship team. This file is used in the main regression of their paper, titled “run_regressions.R.” The independent replication package (not Tables 5–7) was accessed in April 2023 and is stored on our cloud at <https://tinyurl.com/yy7s7b9c>.

Hurricane	Year of Treatment in LaCour-Little et al.	Time After Treatment			
		t+1	t+2	t+3	t+4
Frances (2004)	2004	1288	837	698	463
	2005	620	537	338	212
	2016	13	14	13	19
Charley (2004)	No Observation in Pavlov archive				
Ivan (2004)	2004	239	145	165	148
	2005	1		1	2
Jeanne (2004)	2004	653	433	398	220
	2005	314	290	143	104
	2016	13	14	13	19
Dennis (2005)	No Observation in Pavlov archive				
Wilma (2005)	2004	991	620	537	338
	2005	2468	2199	1322	643
Katrina (2005)	2004	2	1		1
	2005	862	841	554	286
	2008	77	99	92	100
	2012	281	238	303	341
Rita (2005)	2005	5	3	2	5
	2008	5	1	2	
Ophelia (2005)	2005	121	120	179	99
Gustav (2008)	2005	86	73	85	77
	2008	86	108	98	109
	2012	138	89	131	151
Ike (2008)	2005	5	3	2	5
	2008	38	32	28	46
Dolly (2008)	2008	2	2		
Irene (2011)	2005	12	5	15	15
	2011	20	66	59	83
	2012	32	31	36	42
Sandy (2012)	2011	14	32	31	36
	2012	1254	980	1180	1476
Isaac (2012)	2005	144	136	157	147
	2008	76	96	91	99
	2012	281	238	303	343
Matthew (2016)	2004	13	10	6	13
	2016	740	900	819	1428

We rely on an archive shared by AP in early 2023.