

# Residential Solar Adoption Timeline Analysis 2017-2022 & the Impacts From COVID-19

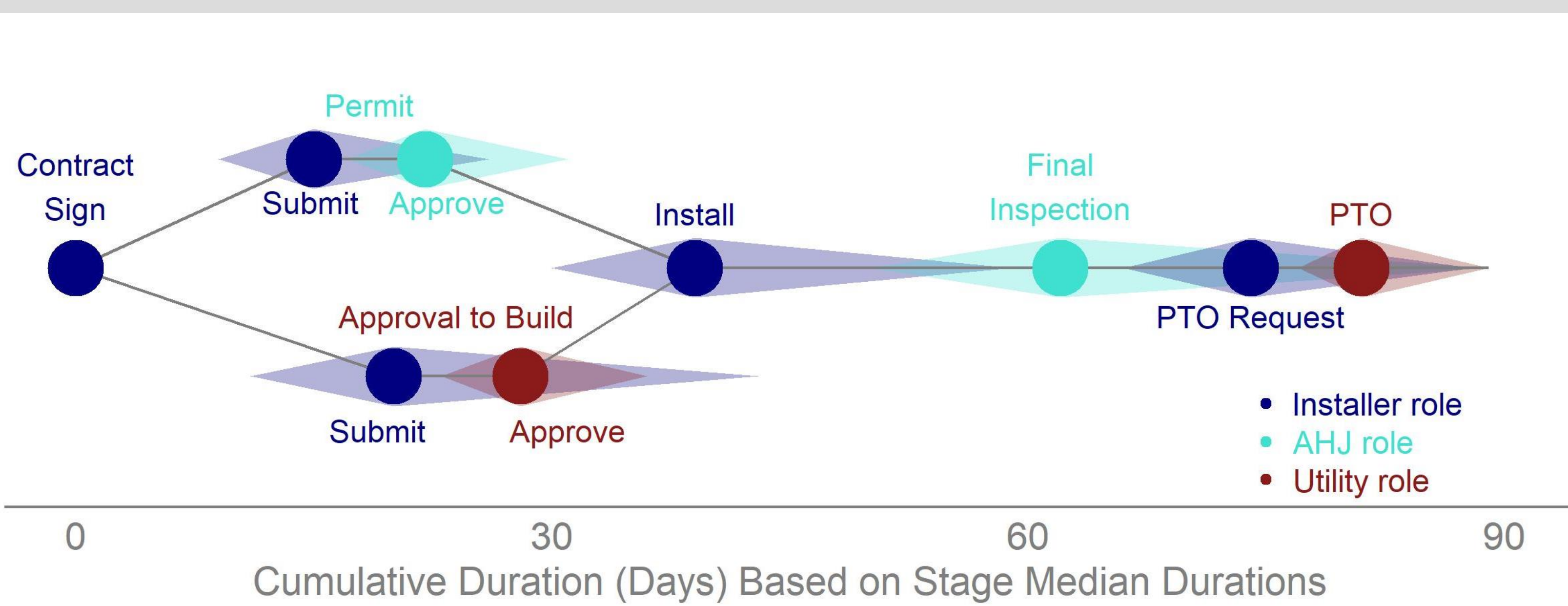


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**Background:** Most residential PV projects must go through permitting, inspection, and interconnection (PII) processes administered by the local jurisdiction and utility.



**PII processes are often cited as major contributors to project delays and longer timelines.**

**The COVID-19 pandemic created unprecedented disruption across many industries; many jurisdictions faced PII challenges due to work-from-home and social distancing orders.**

**Methods:** 14 companies provided their project-level data for analysis, covering 23% of U.S. residential installs 2017-2022

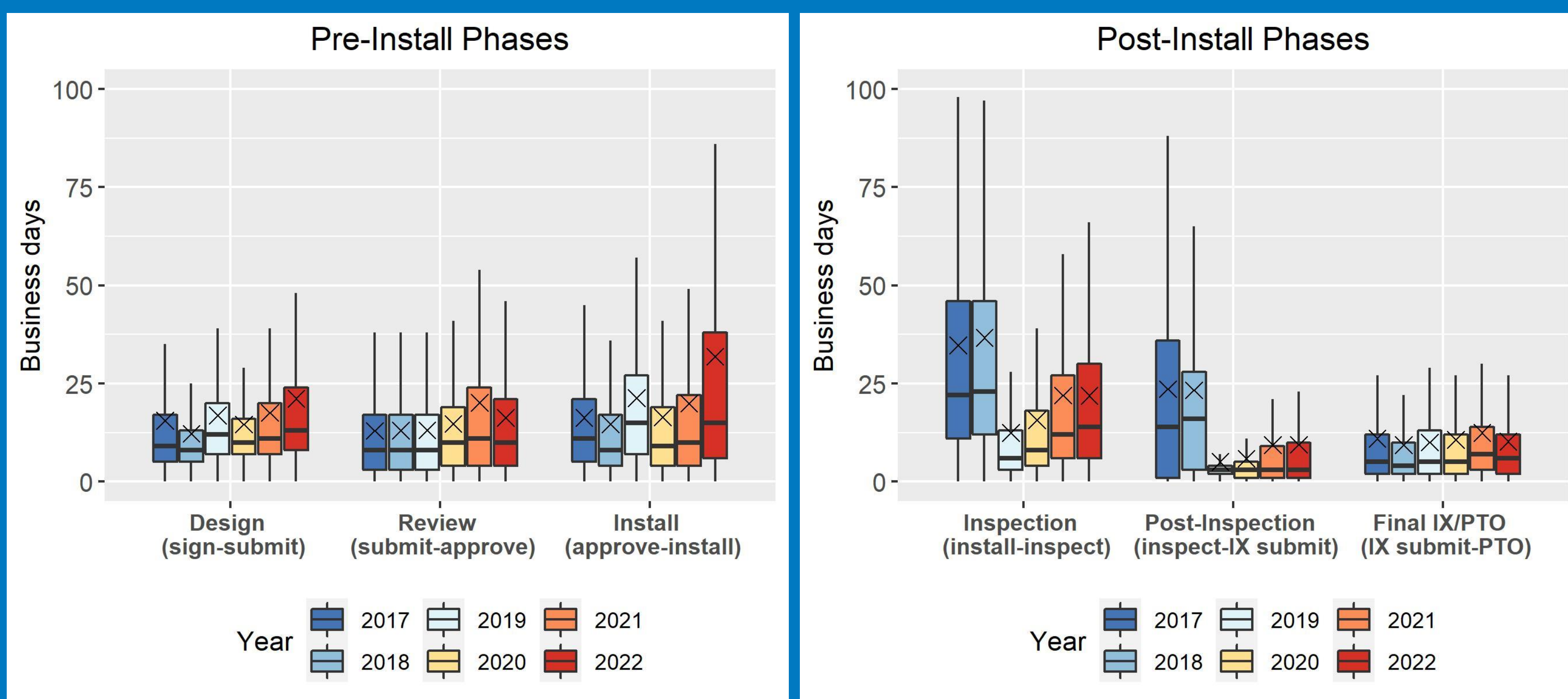
An August 2021 survey was sent to the top 500 jurisdictions (by install volume) about impacts from the COVID-19 pandemic, with 171 unique responses from 16 states.

WA 159	ID 648	MT 0	ND 0	MN 42	WI 317			NY 18,221	VT 1,937	NH 1,213	ME 1
OR 479	UT 4,069	WY 0	SD 0	IA 0	IL 19,247	MI 384	PA 5,934	NJ 18,434	CT 8,205	MA 24,375	
CA 301,045	NV 27,855	CO 20,717	NE 0	MO 383	IN 0	OH 431	WV 0	MD 11,350	DE 557	RI 2,461	
	AZ 51,263	NM 8,629	KS 0	AR 268	KY 0	TN 5	VA 2,579	DC 123	NC 3,009		
			OK 0	LA 8	MS 53	AL 0	GA 2,533	SC 6,336			
AK 0	HI 1,187			TX 19,696				FL 18,554			

*SolarTRACE dataset Residential PV-only installs 2017-2022*

**Data results:** Since 2019, a typical residential PV project took 10-28 weeks between contract signing and operation (PTO)

From 2017-2020, project timelines improved by 5-6 weeks (30% decrease), but have since increased again.



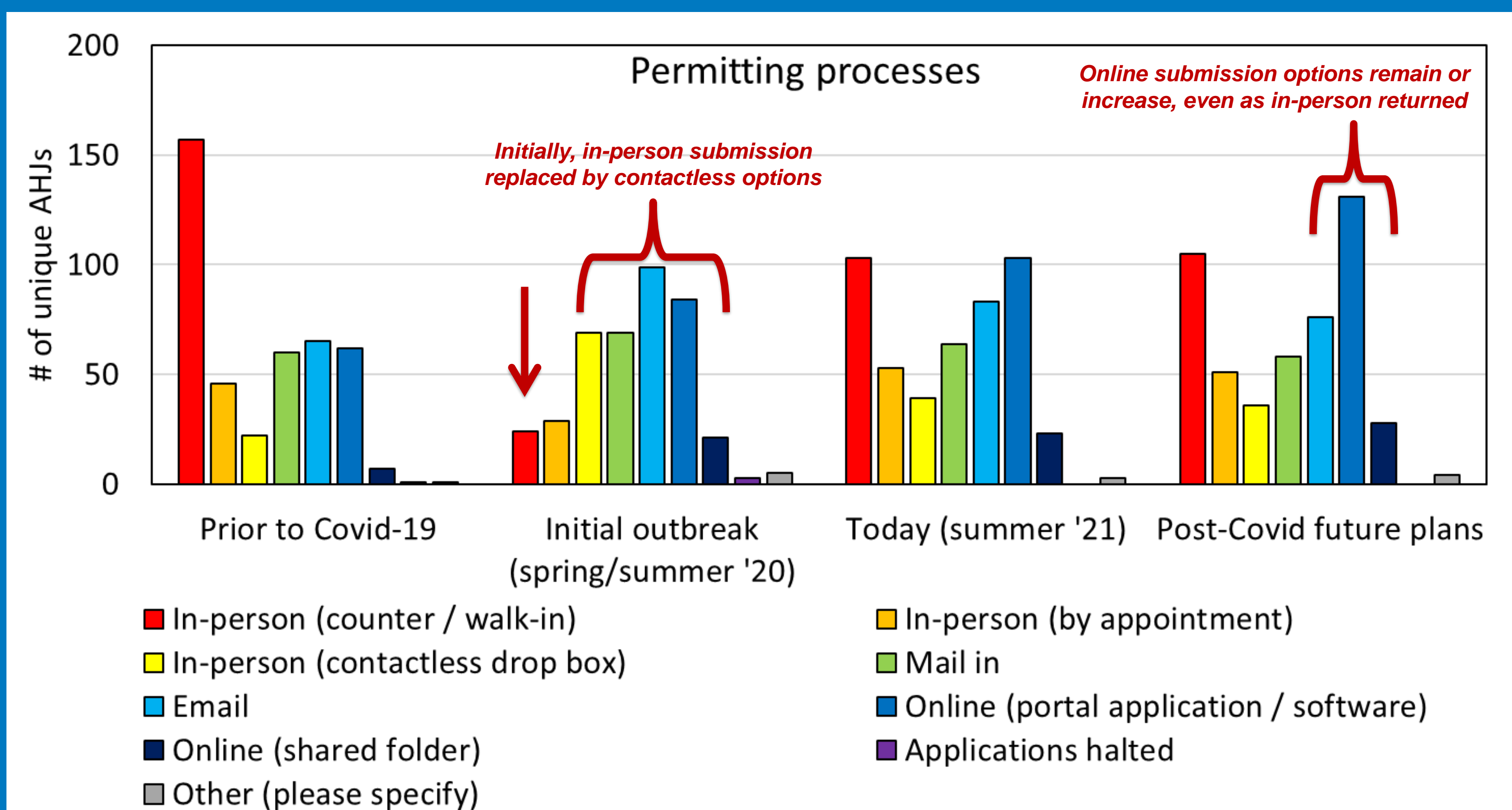
**Timeline improvements from faster inspection and post-inspection phases (i.e., installation complete to final interconnection request).**

**More recently, timelines have increased due to longer installation and inspection phases – potentially due to supply chain issues, record install volumes, and increased permitting/inspection volume at jurisdictions.**

**Jurisdiction permit review times increased moderately in 2020-2021 (by 1-5 days), but have since returned to pre-pandemic durations.**

## Survey results & follow up interviews:

The COVID-19 pandemic catalyzed or accelerated the shift to online permitting systems; 40% of respondent jurisdictions transitioned to online during the pandemic.



**Staffing challenges were widely reported (51%) and typically long-lasting (3 or more months). However, challenges were primarily reported as associated with the hiring market and record permitting volume, rather than the pandemic itself.**