

Business Formation during the COVID-19 Pandemic: Update #5

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Abstract

This update to the “Business Formation during the COVID-19 Pandemic” report includes the business formation statistics from calendar weeks 39 through 42 and the state-level labor market data for the month of September. Labor market conditions and business applications are linked using the same accounting approach as the original report and the four previous updates. Two broad trends characterize the evolution of business formation since our previous update. First, the strength of the rebound is gradually losing steam, but continues above trend compared to previous years. The recovery is broad-based in that applications exceed the levels of prior years in virtually every state. Moreover, the recovery encompasses the more promising “high-propensity” applications. Thanks to this fairly sustained uptick in applications the cumulative number of applications through week 42 is exceeding comparable year-to-date numbers in previous years by a significant margin. Barring a sharp contraction in the flow of applications later this year, full-year totals are likely to exceed the levels from prior years. Second, the rise in applications can be attributed to a sustained rise in the number of *applications per employed worker*, rather than significant improvements in local labor markets. In fact, the labor force participation and employment rates for September continue to be weak by historical standards, but marginally improved compared to August. With the exception of Michigan and Indiana, all Midwestern states made gains in the employment rate of approximately one percentage point. The picture for the labor force participation rate is more mixed: Wisconsin’s roughly returned to 2019 levels while Iowa’s gap widened by an additional 0.6 points to -8.5 percent compared to the September rate in 2019.

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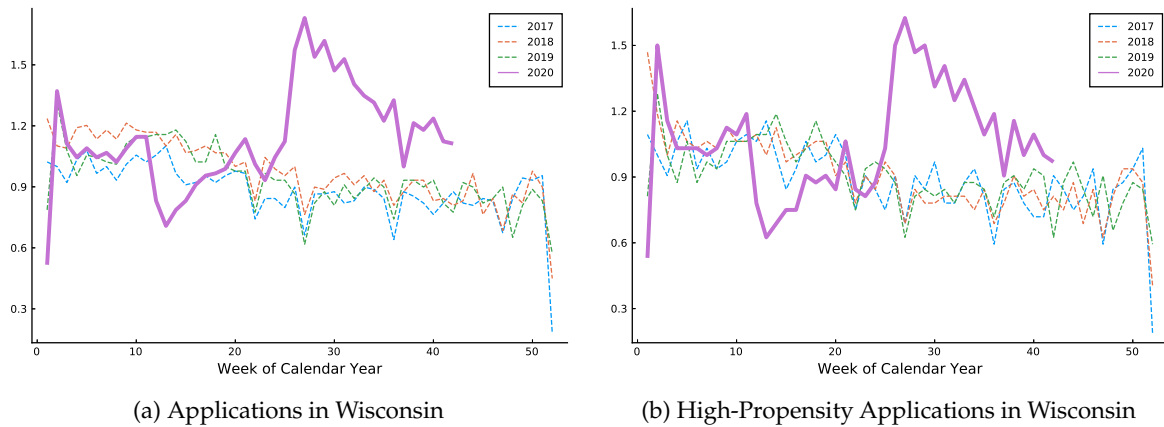


Figure 1: Wisconsin

1 Update

This report updates the previously published figures and tables with four additional weeks worth of business applications, namely weeks 39 (ending September 26) through 42 (ending October 17), and one additional month (September) of local labor market data.

Two aspects of the data are worth highlighting: the continued strength in the number of weekly applications and a strengthening of the trends we highlighted in our growth decomposition in the previous update.

1.1 Weekly Applications

The recovery of business applications has lost some steam since early July, but the number of applications remains above same-week levels in 2017-2019. In weeks 39 through 42 virtually all states continue to report higher numbers of applications compared to the same weeks in prior years although the number of “excess” applications is far more modest. As a result, the gap in cumulative year-to-date applications – shown relative to full-year totals in 2017 – that opened up in the spring and was reversed over the course of the summer has widened slightly.

Wisconsin (Figures 1a and 1b for total and high-propensity applications, respectively) broadly follows the evolution of applications at the national level (Figures 2a and 2b): a sharp drop in the spring, particularly in the number of high-propensity applications, followed by a robust rebound from late May through early July, and somewhat weakening dynamism since then.

In the Midwest more broadly, all states are reporting higher than usual numbers of applications, although there is some variation in the strength of these trends across states. The evolution of applications in Indiana, Michigan, and Minnesota is comparable to Wisconsin’s (Figures 12, 13, and 14 in the appendix).

Illinois (Figure 11) had a particularly strong spike in mid to late June, after which the numbers dropped

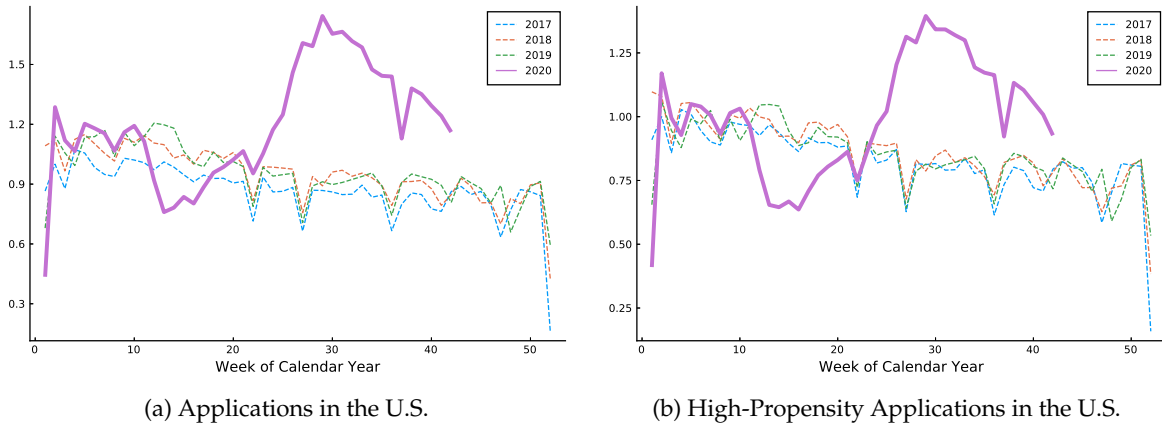


Figure 2: U.S.

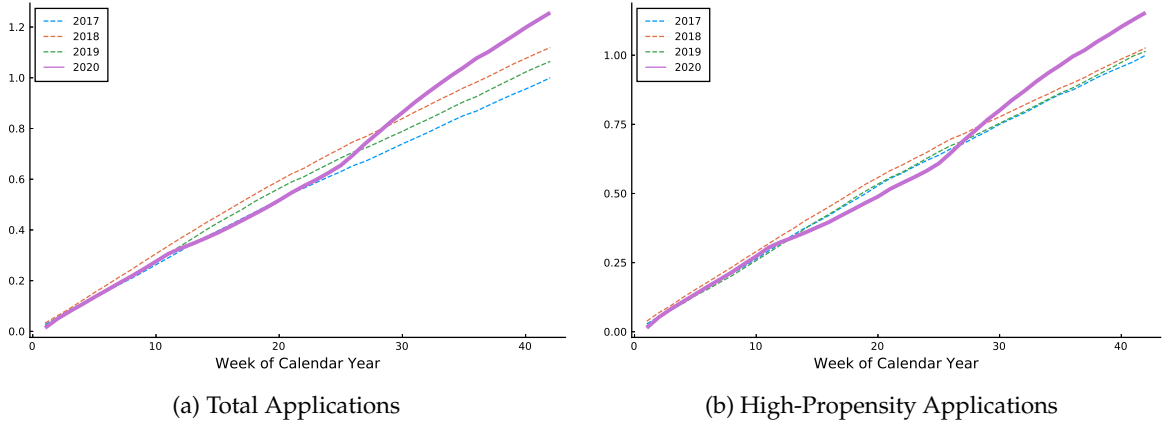


Figure 3: Wisconsin: Cumulative Applications Weeks 1-38

more sharply than elsewhere (while still significantly above the same-week levels in previous years). Iowa’s numbers, in contrast, are less volatile (Figure 10). The drop in applications earlier in the year was followed by a more muted recovery and, in recent weeks, have been broadly in line with the years 2017-2019. Not surprisingly, the number of applications year-to-date in Iowa is roughly on par with 2019 while all other Midwestern states, as well as the U.S. as a whole, have cumulative application numbers at record levels (since 2017).

Figures 4 and 3 plot the year-to-date applications for the first 38 weeks in the past four calendar years for Wisconsin (Figure 3) and for the U.S. (Figure 4).

1.2 Growth Accounting during the COVID-19 Pandemic

How are these trends related to the broader labor market dynamics during the COVID-19 pandemic? In previous updates we emphasized the disconnect between local labor market conditions, which

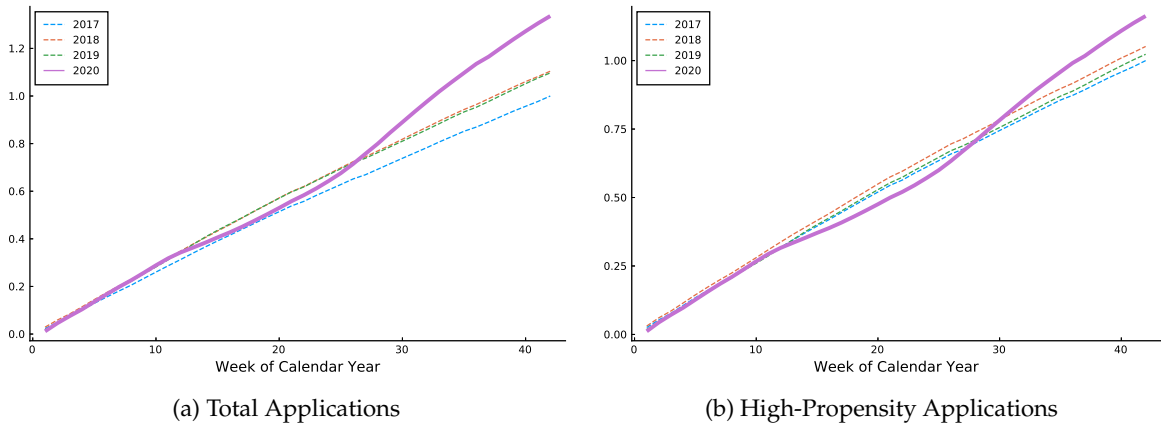


Figure 4: U.S.: Cumulative Applications Weeks 1-38

continue to be poor, and the recovery in business formation. This broad pattern continues to hold and it raises some questions with respect to the sustainability of the rise in business dynamism. The overall picture hasn't changed significantly since our August update, but the application flows are showing some signs of softness.

In order to highlight the relationship between labor market conditions and business applications, we decompose the number of applications per person into three components: (1) the number of applications *per worker*, (2) the employment rate (which equals one minus the unemployment rate), and (3) the labor force participation rate. This decomposition relates business formation to standard measures of local labor market conditions and the following equation is satisfied as a matter of pure accounting:

$$\underbrace{\frac{A_{i,t}}{CNIP_{i,t}}}_{\text{applications per person}} \equiv \underbrace{\frac{A_{i,t}}{EMP_{i,t}}}_{\text{applications per worker}} \times \underbrace{\frac{EMP_{i,t}}{CLF_{i,t}}}_{=ER} \times \underbrace{\frac{CLF_{i,t}}{CNIP_{i,t}}}_{=LFPR}, \quad (1)$$

where $A_{i,t}$ is the number of applications in location i and time t , $CNIP_{i,t}$ is the civilian non-institutionalized population age 16 and older (or civilian working-age population), $EMP_{i,t}$ is the number of employed workers, and $CLF_{i,t}$ is the civilian labor force (i.e. employed plus unemployed workers). The BLS reports the number of applications for various categories of applications. Our analysis here is limited to (1) the total number of applications and (2) so-called “high-propensity” applications, which are more likely to ultimately yield a business entry.

Compared to the August-to-August decomposition in Table 2, three broad trends emerge in the September numbers, which are reported in Table 1:

1. The number of applications per person (and per worker) continue to be high by historical standards, but the log point differences have shrunk considerably between August and September. “Excess” applications compared to the same month in 2019 expressed in log points have dropped by a factor of 2-2.5 throughout the Midwest. High-propensity applications have dropped by a

factor of roughly 3, except in Michigan (where both types of applications dropped by a factor of about 2).

2. The employment rates have improved in all Midwestern states, except Michigan. Minnesota saw the biggest improvement (1.5 log points). The gains elsewhere have been more modest. Compared to the spring and summer of 2020, labor market conditions are improving but the picture remains fairly grim overall.
3. The year-on-year gap in the labor force participation rate (LFPR) has shrunk, except in Iowa, where the rate dropped by an additional 0.6 points to -8.5 percent.

It is worth noting that Midwestern states, with the exception of Michigan, have high LFPRs by national standards. The change in the *national* LFPR was 2.6 log points between July 2019 and July 2020.¹

Clearly, the rise in business formation continues to be driven by an increase in the number of *applications per employed worker*, rather than significant improvements in local labor markets.

The mechanism underlying the rise in business applications remains unclear. While improvements in labor market conditions can account for a recovery from the low application numbers in March and April, they cannot shed much light on the “overshooting” in June through September.

One possible explanation is that the rise in business applications reflects a rise in self-employment as an alternative pathway from unemployment or “out-of-the-labor-force” status to employment. Since business applications are not linked to the applicants’ labor market status we cannot substantiate this hypothesis based on the Census’ *Business Formation Statistics* and the BLS’ *State Employment and Unemployment* reports.

It is also conceivable that the rise in gross business formation is partially a response to a rise in business *failures*. With no real-time data on firm shutdowns or establishment deaths, this is a hypothesis that cannot be corroborated at this time, unfortunately.²

2 Conclusion

The five additional weeks of application data and the extra month of local labor market data corroborated the ongoing divergence of labor market conditions and business formation. The underlying mechanism, however, remains unclear and due to the lack of timely firm *exit* data we cannot gauge *net* (as opposed to *gross*) business formation accurately. At this time, our understanding of the effect of the COVID-19 pandemic on business dynamics remains tentative.

¹In September 2020, the US LFPR was 61.4 percent, down from 63.2 percent one year earlier. This year-on-year gap remains virtually unchanged compared to July. LFPRs in the Midwest in September of 2020 were in the 63 to 69 percent range, except for Michigan at 61 percent.

²The Census’ *Business Dynamics Statistics* (BDS) account for both entry and exit of firms and establishments, but the data is released with a significant lag. The data for 2017 is scheduled for release in the fall of 2020.

	WI	IL	MN	IA	IN	MI
(a) Business Applications						
Applications per person	25.0%	45.0%	21.7%	16.3%	29.2%	49.4%
Applications per worker	26.5%	52.5%	27.3%	26.8%	34.5%	55.6%
ER	-1.9%	-6.7%	-2.9%	-2.0%	-3.1%	-5.0%
LFPR	0.5%	-0.7%	-2.7%	-8.5%	-2.1%	-1.3%
(b) High-Propensity Business Applications						
High-propensity applications per person	18.8%	35.3%	15.7%	12.9%	15.4%	47.2%
High-propensity applications per worker	20.2%	42.8%	21.3%	23.4%	20.6%	53.4%
ER	-1.9%	-6.7%	-2.9%	-2.0%	-3.1%	-5.0%
LFPR	0.5%	-0.7%	-2.7%	-8.5%	-2.1%	-1.3%

Table 1: 12-Month Log Differences (September 2019 - September 2020)

	WI	IL	MN	IA	IN	MI
(a) Business Applications						
Applications per person	56.1%	92.0%	53.8%	41.8%	68.3%	94.2%
Applications per worker	61.3%	101.0%	59.0%	53.1%	72.9%	99.9%
ER	-2.8%	-7.5%	-4.4%	-3.3%	-3.3%	-5.0%
LFPR	-2.4%	-1.5%	-0.8%	-7.9%	-1.3%	-2.7%
(b) High-Propensity Business Applications						
High-propensity applications per person	54.1%	81.7%	48.3%	43.6%	59.6%	86.8%
High-propensity applications per worker	59.3%	90.7%	53.5%	54.8%	64.2%	92.5%
ER	-2.8%	-7.5%	-4.4%	-3.3%	-3.3%	-5.0%
LFPR	-2.4%	-1.5%	-0.8%	-7.9%	-1.3%	-2.7%

Table 2: 12-Month Log Differences (August 2019 - August 2020)

	WI	IL	MN	IA	IN	MI
(a) Business Applications						
Applications per person	66.2%	113.5%	47.6%	40.0%	79.0%	95.5%
Applications per worker	73.0%	124.4%	53.6%	46.2%	86.0%	103.0%
ER	-3.6%	-7.7%	-4.5%	-3.9%	-4.7%	-4.8%
LFPR	-3.2%	-3.2%	-1.4%	-7.3%	-2.4%	-2.7%
(b) High-Propensity Business Applications						
High-propensity applications per person	60.4%	98.6%	47.0%	27.7%	74.6%	85.7%
High-propensity applications per worker	67.2%	109.5%	53.0%	39.0%	81.7%	93.2%
ER	-3.6%	-7.7%	-4.5%	-3.9%	-4.7%	-4.8%
LFPR	-3.2%	-3.2%	-1.4%	-7.3%	-2.4%	-2.7%

Table 3: 12-Month Log Differences (July 2019 - July 2020)

	WI	IL	MN	IA	IN	MI
(a) Business Applications						
Applications per person	29.9%	78.4%	18.7%	19.1%	41.0%	37.5%
Applications per worker	37.4%	89.2%	24.8%	30.7%	49.6%	49.1%
ER	-5.3%	-11.6%	-5.6%	-5.4%	-8.4%	-11.8%
LFPR	-2.1%	0.8%	-0.5%	-6.1%	-0.1%	0.2%
(b) High-Propensity Business Applications						
High-propensity applications per person	19.8%	64.3%	15.3%	9.1%	37.4%	24.0%
High-propensity applications per worker	27.3%	75.1%	21.4%	20.7%	46.0%	35.5%
ER	-5.3%	-11.6%	-5.6%	-5.4%	-8.4%	-11.8%
LFPR	-2.1%	0.8%	-0.5%	-6.1%	-0.1%	0.2%

Table 4: 12-Month Log Differences (June 2019 - June 2020)

	WI	IL	MN	IA	IN	MI
(a) Business Applications						
Applications per person	6.9%	-3.4%	-9.3%	-12.6%	-11.5%	-1.4%
Applications per worker	16.9%	11.1%	-0.3%	-1.8%	23.0%	21.7%
ER	-9.4%	-12.4%	-7.1%	-7.8%	-9.6%	-19.4%
LFPR	-0.6%	-2.2%	-1.9%	-3.0%	-1.8%	-3.7%
(b) High-Propensity Business Applications						
High-propensity applications per person	-5.1%	-21.8%	-18.2%	-18.8%	-0.0%	-18.8%
High-propensity applications per worker	4.9%	-7.3%	-9.2%	-8.1%	11.4%	4.3%
ER	-9.4%	-12.4%	-7.1%	-7.8%	-9.6%	-19.4%
LFPR	-0.6%	-2.2%	-1.9%	-3.0%	-1.8%	-3.7%

Table 5: 12-Month Log Differences (May 2019 - May 2020)

	WI	IL	MN	IA	IN	MI
(a) Business Applications						
Applications per person	-20.3%	-24.2%	-20.3%	-20.5%	-15.8%	-24.3%
Applications per worker	-6.9%	-4.8%	-12.6%	-10.4%	5.1%	5.9%
ER	-12.6%	-14.8%	-5.9%	-8.8%	-15.9%	-23.4%
LFPR	-0.8%	-4.6%	-1.9%	-1.3%	-5.1%	-6.7%
(b) High-Propensity Business Applications						
High-propensity applications per person	-29.5%	-43.1%	-22.3%	-24.9%	-22.8%	-37.8%
High-propensity applications per worker	-16.1%	-23.7%	-14.6%	-14.8%	-1.9%	-7.6%
ER	-12.6%	-14.8%	-5.9%	-8.8%	-15.9%	-23.4%
LFPR	-0.8%	-4.6%	-1.9%	-1.3%	-5.1%	-6.7%

Table 6: 12-Month Log Differences (April 2019 - April 2020)

A Weekly Business Applications in Six Midwestern States

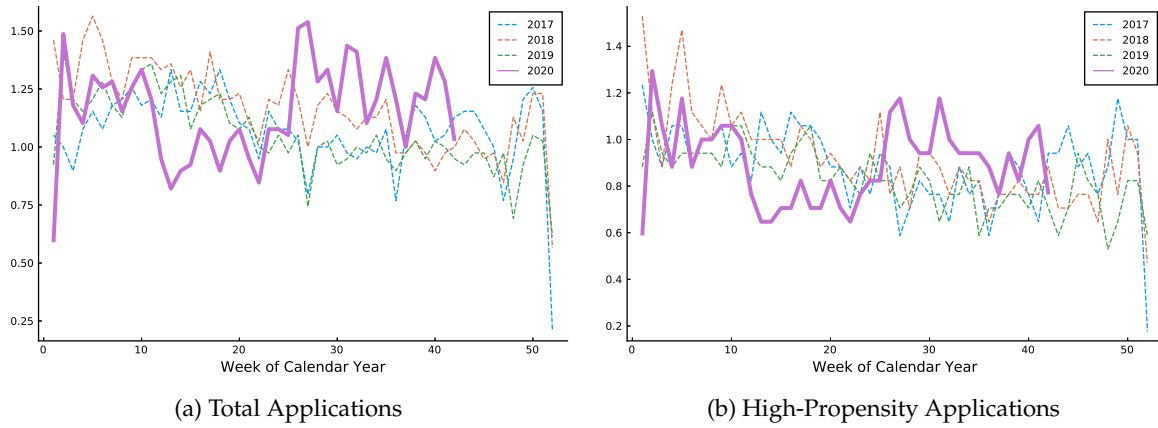


Figure 5: Iowa

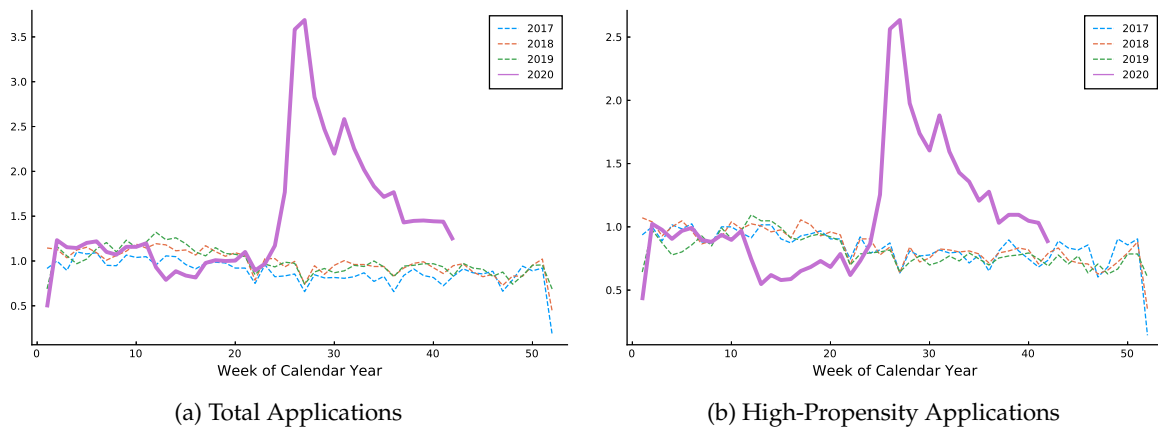
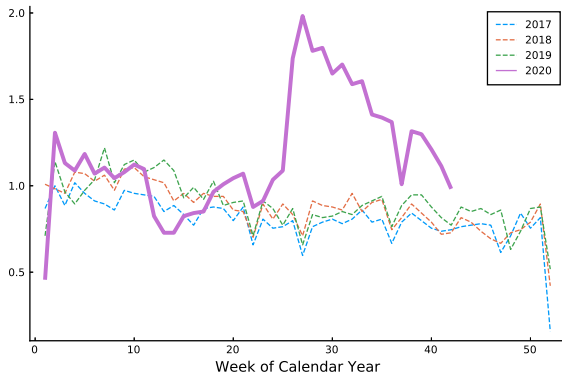
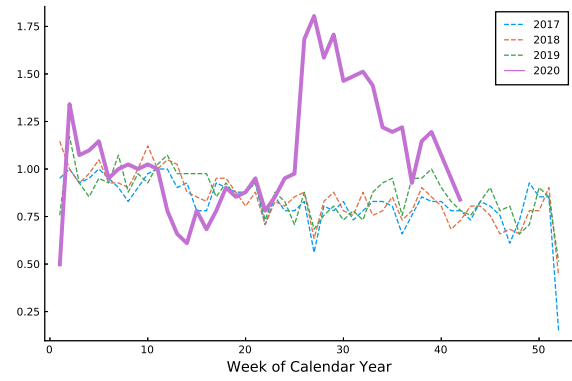


Figure 6: Illinois

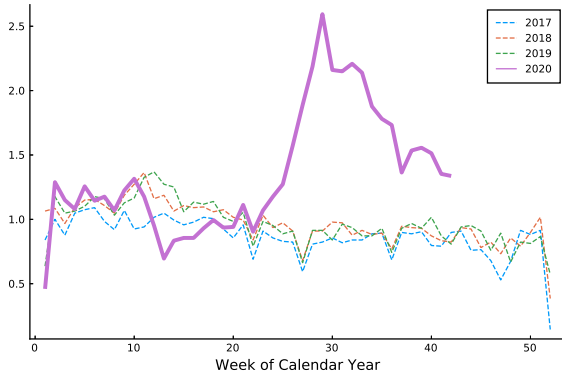


(a) Total Applications

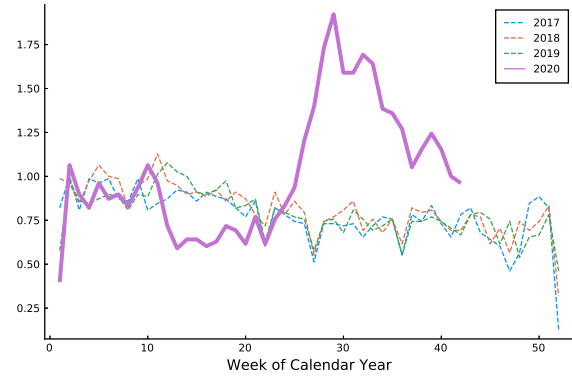


(b) High-Propensity Applications

Figure 7: Indiana

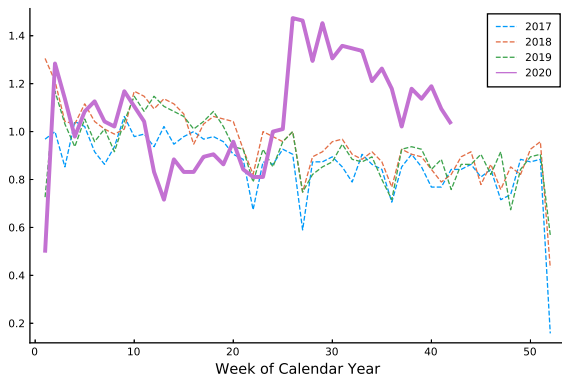


(a) Total Applications

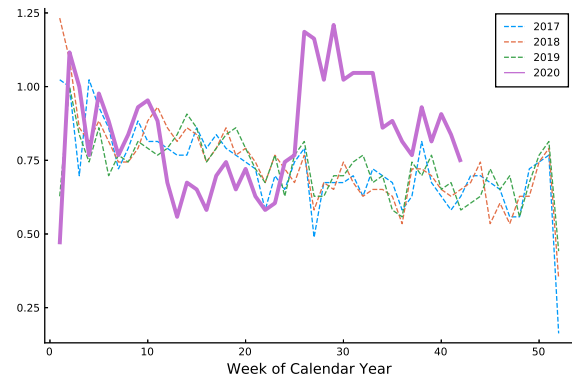


(b) High-Propensity Applications

Figure 8: Michigan



(a) Total Applications



(b) High-Propensity Applications

Figure 9: Minnesota

B Cumulative Business Applications in Six Midwestern States

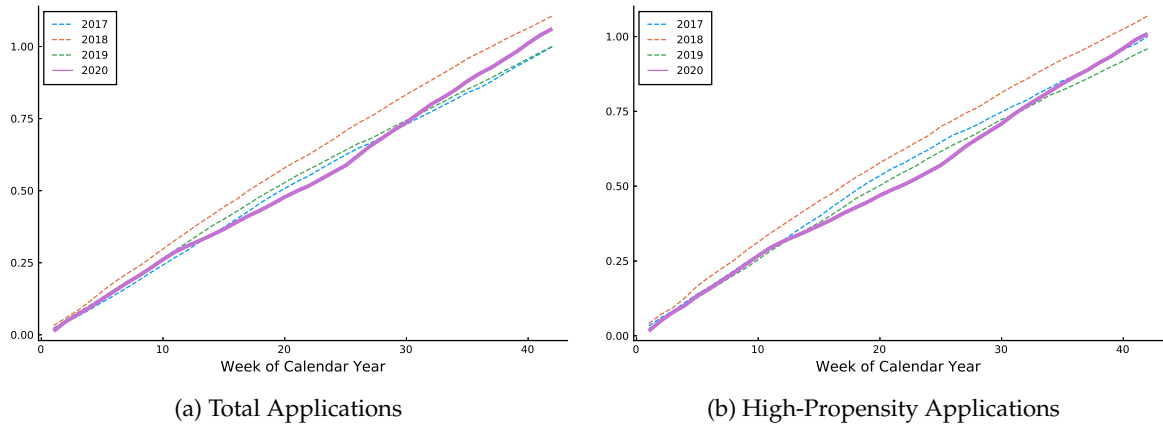


Figure 10: Iowa

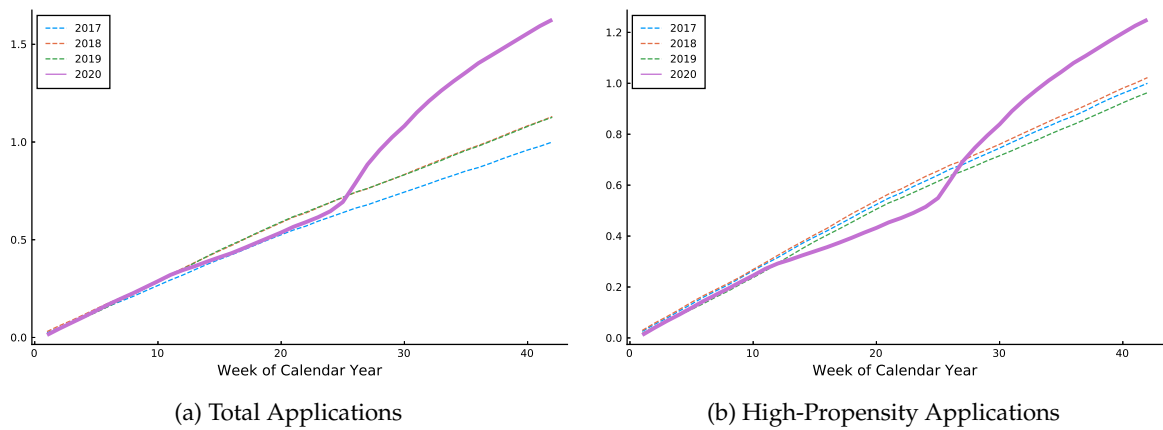
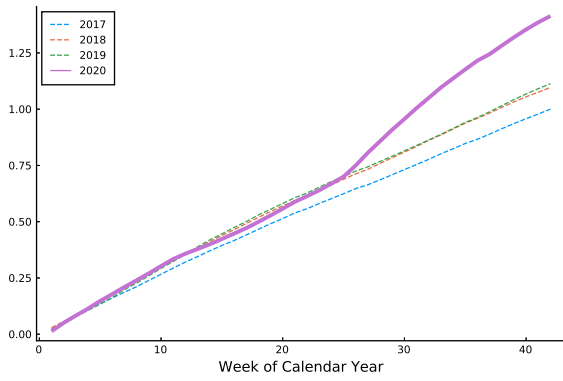
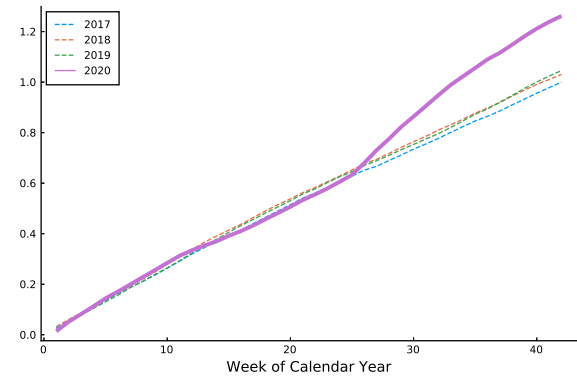


Figure 11: Illinois

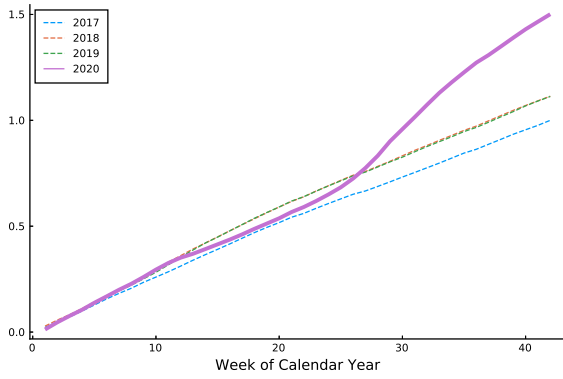


(a) Total Applications

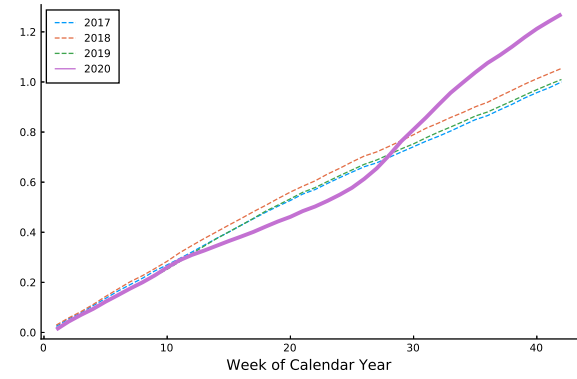


(b) High-Propensity Applications

Figure 12: Indiana

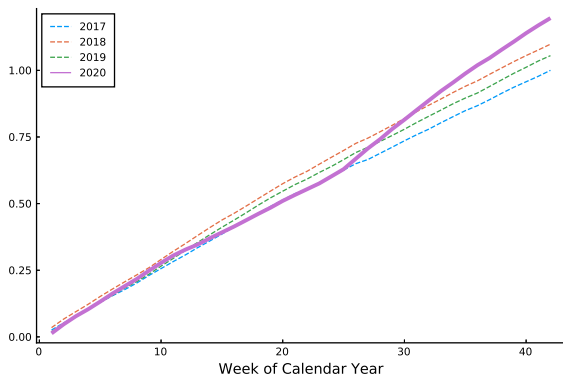


(a) Total Applications

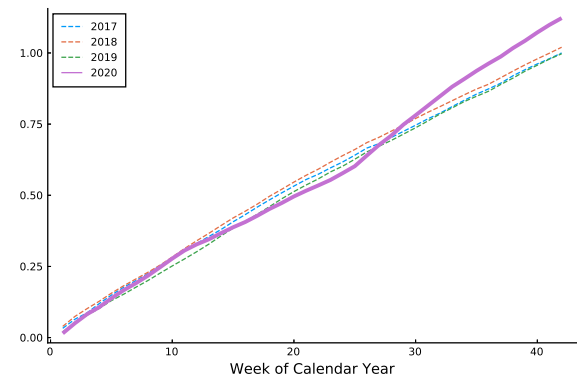


(b) High-Propensity Applications

Figure 13: Michigan



(a) Total Applications



(b) High-Propensity Applications

Figure 14: Minnesota