Assessing the Initial Impact of the COVID-19 Recession on Employment by Firm Size Class (2 of 3)

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In the <u>first article of this series</u>, we quantified the tremendous short-term effect of the COVID-19 recession on the Minnesota job market in March and April of 2020—a loss of 410,736 jobs. Furthermore, we identified that the number of jobs created dwindled while the number of jobs terminated skyrocketed, with significant differences in levels and rates across industries. This article is designed to extend the analysis of monthly business employment dynamics to investigate how the COVID-19 recession impacted Minnesota businesses of different size classes. The methodology and the results of this analysis are summarized in a set of three articles. This article, the second of the three, sheds light on the absence (or existence) of differences by employer size class in the initial impacts of the COVID-19 recession on jobs created and jobs destroyed.

The results on the initial impact of the COVID-19 recession on establishments by firm size are summarized in a separate article, referred to here as "Article 3 of 3" and accessible here: <u>Assessing the Initial Impact of the</u> <u>COVID-19 Recession on Establishments by Firm Size Class</u> (3 of 3). In addition, a review of the methodology and the size distributions of firms, establishments, and employment is provided and referred to here: <u>A Note on the</u> <u>Methodology Used to Assess the Initial Impact of the COVID-19 Recession by Firm Size Class</u> (1 of 3). These three articles together provide a complete picture of how the COVID-19 recession impacted employment and businesses of different firm size classes.

The major finding of this analysis is the strong and prevalent firm size heterogeneity in how firms of different sizes responded to the pandemic during its first two months. For instance, while the COVID-19 recession affected the very small (1 to 4 employees) firms through significant job losses at closing establishments, it affected the very large (250 or more employees) firms through significant job losses at both expanding and contracting establishments. And understanding this heterogeneity is important in having a clear picture of the real damage of the COVID-19 recession and the effectiveness of policies put in place to deal with it.

This article is composed of five sections, each one devoted to a particular measure of monthly business employment dynamics, namely: net employment change, jobs created at expanding establishments, jobs created at opening establishments, jobs destroyed at contracting establishments, and jobs destroyed at closing establishments. Each section exposes this firm size heterogeneity in how the COVID-19 recession affected employment by firm size. Results discussed in each section are summarized in Tables 1 and 2 and Figures 1 and 2.

Table 1 compares the levels of the cumulative monthly business employment dynamics over March and April between 2019 and 2020 and shows the initial COVID-19 recession impact on employment by measure of business employment dynamics and firm size. Figure 1 displays the firm size distributions of the COVID-19 recession impact on each of the business employment dynamics and Table 2 expresses the COVID-19 recession impact on the business employment dynamics by firm size in relative terms. For a particular type of business employment dynamic, say jobs created at expanding establishments, these relative measures express the initial COVID-19 recession impact on jobs created at expanding establishments to the net employment change in expanding establishments, to the baseline level of jobs created by expanding establishments in March-April 2019, to the total number of jobs of expanding establishments.

In addition, Figure 2 highlights the COVID-19 recession impact on net employment change by its four components and across firm size. So, Tables 1 and 2 and Figures 1 and 2 form the basis of our discussion about the impact of the COVID-19 recession on the number of jobs by business employment dynamics and firm size.

Five size classes are considered in this analysis: very small: 1 to 4 employees, small: 5 to 9 employees, Medium: 10 to 49 employees, large: 50 to 249 employees, and very large: 250 or more employees. Our unit of analysis for the monthly business employment dynamics is the establishment, but the business size class is defined at the level of the firm. (For more detail on methodology see Article 1 of 3).

1. Net employment change

The first measure of interest from the business employment dynamics is the net employment change. It captures the difference between job creation and job destruction; a positive number means that an economy or a sector created more jobs than it destroyed, and a negative number means that it lost more jobs than it added. In March and April of 2019, Minnesota firms added a net of 35,259 jobs but as COVID-19 hit they eliminated a net 375,477 jobs in March and April of 2020. However, the true COVID-19 recession initial impact on employment must also include the loss of the potential job growth that would have occurred if COVID-19 never rolled in. Thus, over just two months, March and April, COVID-19 resulted in a loss of 410,736 jobs statewide (Table 1), or about 14% of total employment (Table 2, Ratio 1).

Table 1. Change in Monthly Business Employment Dynamics By Firms Size Class,											
March - April 2020 Compared to March - April 2019											
Firm Size Class		Job Cre	ation	Job Des	Net						
		Expanding	Opening	Contracting	Closing	Employment					
		Establis	hments	Establis	Change						
Very Small	2020	10,125	10,235	11,461	18,530	-9,631					
(1 to 4 employees)	2019	12,022	11,693	7,335	8,003	8,377					
	COVID Impact	-1,897	-1,458	4,126	10,527	-18,008					
Small	2020	10,748	4,115	21,302	15,752	-22,191					
(5 to 9 employees)	2019	13,891	4,944	9,895	3,955	4,985					
	COVID Impact	-3,143	-829	11,407	11,797	-27,176					
Medium	2020	29,505	6,046	102,391	38,334	-105,174					
(10 to 49 employees)	2019	42,621	6,788	29,284	5,751	14,374					
	COVID Impact	-13,116	-742	73,107	32,583	-119,548					
Large	2020	23,556	2,057	109,945	18,837	-103,169					
(50 to 249 employees)	2019	33,948	3,887	28,712	4,269	4,854					
	COVID Impact	-10,392	-1,830	81,233	14,568	-108,023					
Very Large	2020	32,033	4,095	164,464	6,976	-135,312					
(250 or more employees)	2019	44,901	4,624	42,857	3,999	2,669					
	COVID Impact	-12,868	-529	121,607	2,977	-137,981					
Total	2020	105,967	26,548	409,563	98,429	-375,477					
	2019	147,383	31,936	118,083	25,977	35,259					
	COVID Impact	-41,416	-5,388	291,480	72,452	-410,736					
Source: Author's analysis of DEED's Quarterly Census of Employment and Wages.											

Examining this employment collapse by firm size reveals some fascinating results. First, while all firm size classes enjoyed net job creation in March-April 2019, they all suffered net job destruction in March-April 2020, indicating that the COVID-19 recession did not segregate by firm size. Medium firms which in 2019 added to the economy a net of 14,374 jobs, the largest number of net jobs added of all firm size classes, eliminated from the economy a net of 105,174 jobs in 2020. On the other hand, the very large firms that added only 2,669 jobs, the lowest amount of all firm size classes, saw their job elimination in March-April 2020 explode to 135,312 net jobs, the largest of all firm size classes. Finally, the very small firms which enjoyed the second largest number of net jobs added in 2019 at 8,377 jobs bore the lowest number of net jobs lost in 2020 at 9,631 jobs.

Second, although the COVID-19 recession caused net job losses in all firm size classes, it did it with varying breadths across firm size classes. To see this, we can either relate the distribution of the COVID-19 impact on net employment change by firm size to its counterpart distribution of employment (Figure 1) or compare the ratio of the COVID-19 impact on net employment change to employment by size class (Table 2, Ratio 1). Obviously, if the initial impact of the COVID-19 recession were equal across firm size classes, then the distribution of impact on net employment change by firm size would resemble the distribution of employment by firm size. And the ratio of the COVID-19 recession impact on net employment change to employment would be equal to the state ratio (14%) in all size classes.

As expected, due to its lion's share of total employment, very large firms recorded the largest damage to net jobs, losing 137,981 jobs. But a large count of net job losses, by itself, does not necessarily indicate that the COVID-19 recession damage to employment was severe. The relative measures of net employment change must also be investigated.

So, in relative terms about 34% of the statewide net job loss caused by the COVID-19 recession happened at the very large firms though they possess half of total employment. Moreover, according to the ratio of COVID-19 recession impact on net employment change to employment the very large firms suffered the smallest blow (9%) from COVID-19. This means that although very large firms had the largest count of net job loss, the depth of the initial damage of COVID-19 to their employment was very mild.



Conversely, firms in all other size classes contributed more to the overall COVID-19 recession impact than their share in employment, with a notable exception: the very small size class where only a slight disproportionality was present. This implies that the COVID-19 recession impact was more severe in the middle section of the firm size distribution containing small, medium, and large size classes.

Surprisingly, medium firms, which dominate neither firm nor establishment nor employment distribution, were hit the hardest by COVID-19. Their COVID-19 recession impact on net employment change was 24% of total employment, the largest rate of all size classes. They lost 119,548 net jobs which amounted to 29% of all net job losses due to COVID-19 in the state while they had only 17% of state employment.

Surprisingly again, the very small firms sustained moderate COVID-19 recession impacts. In fact, they only accounted for 4% of the overall COVID-19 impact on net employment change, which is identical to their share in total employment. In other words, just as they contributed the smallest number of jobs of all size classes, they contributed the smallest loss of net jobs (18,008 jobs). Likewise, this loss amounted to 15% of their employment, near the state rate of 14%.

Business Employment Dynamics	Firm Size (employees)							
and related statistics	Very Small	Small	Medium	Large	Very Large	Total		
	(1 to 4)	(5 to 9)	(10 to 49)	(50 to 249)	(250 +)			
Net Employment Change (NEC)								
1. Ratio NEC to employment (%)	-14.9	-21.4	-24.1	-16.4	-9.4	-14.4		
Jobs Created at Expanding Establishments (JC-EE)								
2. Ratio of JC-EE to NEC (%)	10.5	12	11.0	10	9	10		
3. Rate of change from March-April 2019 (%)	-16	-23	-30.8	-30.6	-29	-28		
4. Ratio JC-EE to employment (%)	-1.6	-2.5	-2.6	-1.6	-0.9	-1.4		
Jobs Created at Opening Establishments (JC-OE)								
5. Ratio of JC-OE to NEC (%)	8	3	1	2	0.4	1		
6. Rate of change from March-April 2019 (%)	-12	-17	-10.9	-47	-11.4	-17		
7. Ratio JC-OE to employment (%)	-1.2	-0.7	-0.1	-0.3	0.0	-0.2		
Jobs Created at expanding and opening (JC)								
8. Ratio of JC to NEC (%)	19	15	12	11	10	11		
9. Rate of change from March-April 2019 (%)	-14	-21	-28	-32	-27	-26		
10. Ratio JC to employment (%)	-2.8	-3.1	-2.8	-1.9	-0.9	-1.6		
Jobs Destroyed at Contracting Establishments (JD-CnE)								
11. Ratio of JD-CnE to NEC (%)	23	42	61	75	88	71		
12. Rate of change from March-April 2019 (%)	56	115	250	283	284	247		
13. Ratio JD-CnE to employment (%)	3.4	9.0	14.8	12.4	8.3	10.2		
Jobs Destroyed at Closing Establishments (JD-CIE)								
14. Ratio of JD-CIE to NEC (%)	58	43	27	13	2	18		
15. Rate of change from March-April 2019 (%)	132	298	567	341	74	279		
16. Ratio JD-CIE to employment (%)	8.7	9.3	6.6	2.2	0.2	2.5		
Jobs Destroyed at contracting and closing (JD)								
17. Ratio of JD to NEC (%)	81	85	88	89	90	89		
18. Rate of change from March-April 2019 (%)	96	168	302	290	266	253		
19. Ratio JD to employment (%)	12.1	18.3	21.3	14.6	8.5	12.7		

Source: Author's analysis of DEED's Quarterly Census of Employment and Wages.

Notes: Colors indicate COVID-19 impact:

most severe least severe Relationships between ratios: Ratio1 = (Ratio4 + Ratio7) - (Ratio13 + Ratio16), R8 = R2 + R5, R10 = R4 + R7, R17 = R11 + R14,

R19 = R13 + R16, R8 + R17 = 100%

Now that we established that the COVID-19 recession dealt different blows to different firm size classes, there are several other interesting, or corollary, results about COVID-19's impact on net employment change that are worth mentioning. Small and medium firms, those with employment between 5 and 49 jobs, suffered the strongest COVID-19 recession blow losing over one-fifth of their jobs. Very large firms bore the softest blow of COVID-19, losing only about one-tenth of their jobs.

These striking differences between size classes indicate that the very large firms were more able to weather the COVID-19 storm. Many possible explanations have been proposed by economists. One explanation is the financial strength of large firms that may have allowed them to have easy access to cash reserves or credit to mitigate the effects of the reduction in their economic activity. Another explanation is the relatively high investment in technology by large firms that made remote work possible and saved many jobs from being cut.

Lastly, as an illustration of the issues surrounding sizing methods discussed in Article 1 of 3, the inequality in COVID-19 impacts disappears if we rearrange the firm size distribution. In fact, collapsing the firm size distribution into only two size classes, 1 to 9 employees and 10 or more employees, shows that the share of each group in overall net employment change is equivalent to its share in employment. About 90% of jobs lost due to COVID-19 were in firms with employment levels of 10 or more jobs which is about the same share in total employment. On the other hand, firms with 1 to 9 jobs accounted for nearly 10% of job losses and nearly 10% of total employment (Figure 1). Consequently, one would conclude, based on these two size classes, that COVID-19 recession damage was impartial.

2. Job creation at expanding establishments

One of the two determinants of the net employment change is job creation which is defined as the sum of jobs created at expanding establishments and opening establishments. Statewide, the COVID-19 recession trimmed 41,416 jobs from the number of jobs created at expanding establishments. Specifically, expanding establishments created 147,383 jobs in March-April 2019 but in March-April 2020 they only created 105,967 (Table 1), a drop of 28% (Table 2, Ratio 3). This depletion in the ability of expanding establishments to add jobs to the economy contributed 10% to the total COVID-19 impact on net employment change (Table 2, Ratio 2).

By firm size, no size class was able to enjoy the same, "normal" level of job creation from expanding establishments in March-April 2020 as they did in March-April 2019. But not all firm size classes were affected the same. Moreover, differences in the extent of the reduction in jobs created by firm size varied depending on the context, or the relative measure considered. Although the COVID-19 recession impact on jobs of expanding establishments varied from a low of 1,897 jobs lost at the very small firms to a high of 13,116 jobs lost at the medium firms, the ratio of this impact to the overall impact on net employment change was relatively close between firm size classes varying only between 9% and 12%. So, based on this metric the firm size differences in COVID-19 impact are minor (Table 2, Ratio 2, and Figure 2).

But expressing the damage to job creation of expanding establishments as a ratio of the baseline of job creation levels of 2019 exposes significant swings between firm size classes (Table 2, Ratio 3). At the high end of the range, expanding establishments at medium and large firms lost approximately one-third of their baseline job creation power due to the COVID-19 recession. And at the low end, expanding establishments at very small firms lost only about one-sixth of their baseline job creation levels. Overall, as firm size shifts from very small to very large size classes these values trace an inverted-V-shaped pattern; the ratio rises, reaches a maximum at medium firms, then falls. Thus, according to this metric, while the COVID-19 recession has slowed the engine of job creation of expanding establishments in all firm size classes, it did it more harshly at medium and large firms.

Finally, expressing the damage to job creation of expanding establishments as a ratio of employment shows noticeable differences in COVID-19 recession impact by firm size. The lowest ratio was 0.9% at the very large firms and the highest was about 2.6% at medium and small firms (Table 2, Ratio 4). As before, this ratio follows

an inverted-V-shaped pattern as firm size shifts from very small to very large size classes. Thus, according to this metric firms of different sizes responded unevenly in how fast their expanding establishments slowed jobs creation during the COVID-19 recession; the fastest slowdown was in medium and small firms.

These results suggest that for expanding establishments, or any other type of establishment as classified by employment business dynamics, for COVID-19 recession impacts to be equal between firm size classes requires uniformity in different relative measures of employment damage. In other words, if the COVID-19 recession were to affect expanding establishments equally across all firm size classes, then all reduction percentages in their job creation would have been roughly equal to 28% (state level), all contribution percentages of expanding establishments to net employment change roughly equal to 10% (state level), and all relative employment damage to total employment roughly equal to 1.4% (state level). Missing these targets suggests that the pandemic affected expanding establishments of different firm size classes with different degrees of severity or that there is firm size heterogeneity in the responses to the COVID-19 recession. Moreover, because these targets capture different dimensions, the seriousness of the COVID-19 impact varied based on the variation from each target; no firm size was least or most severely hurt by the COVID-19 recession with all three metrics considered.



3. Job creation at opening establishments

The other engine of job creation is opening establishments. In March-April 2019, opening establishments added 31,936 jobs but only 26,548 jobs in March-April 2020, taking a 17% contraction or a loss of 5,388 "potential" new jobs. Although opening establishments couldn't escape the COVID-19 damage to employment, they were

the least affected overall. In fact, the impact of the COVID-19 recession on opening establishments contributed only one percent to the total impact on net employment change. In addition, the loss of 5,388 new jobs was only about 12% of the total jobs lost from the deceleration in both engines of job creation.

Similarly, the COVID-19 recession impact on employment of opening establishments was smallest for all firm size classes. But even with the lowest COVID-19 recession impacts, they showed intense variation across firm size classes. In very large firms, the decline of jobs created at opening establishments contributed only less than half of one percent to the COVID-19 impact on net employment change. By contrast, in the very small firms the decline was approximately one-tenth to the COVID-19 recession impact on net employment change (Table 2, Ratio 5 and Figure 2).

Not to mention that other relative measures reveal further drastic differences in the COVID-19 recession impact on job creation of opening establishments by firm size. Based on the ratio of COVID-19 impact to the baseline levels of job creation in March-April 2019, opening establishments of large firms suffered the deepest cut in their job creation ability. These establishments added 3,887 new jobs in March-April 2019 but only 2,057 new jobs in March-April 2020, or a reduction of almost half the level of jobs created during pre-COVID and way farther from the state rate of 17%. All the other size classes saw reduction rates bunched between 11% and 17% (Table 2, Ratio 6).

Likewise, when we evaluate the COVID-19 recession impact on job creation of opening establishments relative to employment levels we find significant differences by firm size (Table 2, Ratio 7). Based on this metric, opening establishments at the very small firms experienced the deepest drop in their job creation at a rate of 1.2% of employment compared to 0.2% for all firms. The least affected firms were the very large firms that were able to add almost the same amount of new jobs at their opening establishments (4,095 jobs in March-April 2020 vs 4,624 jobs in March-April 2019) and posted a rate of COVID-19 impact to employment of almost zero (0.04%).

And oddly enough, the rate of the drop in jobs created by opening establishments for large firms was only 0.3% even though they lost about half of their ability to add new jobs. This result illustrates how different metrics, or relative measures, may give different assessments of the initial impact of the COVID-19 recession on a particular type of establishment by firm size. An additional illustration can be seen with the very small firms. As discussed above, although very small firms suffered a moderate drop from their baseline job creation power of 2019, actually, that drop turned out to be a significant part in their COVID-19 recession impact on net employment change because of their importance in the total jobs added by opening establishments

In conclusion and considering the three metrics together indicate that adding new jobs by opening establishments was weakened severely at very small and large firms, moderately at small and medium firms, and mildly at very large firms. Consequently, opening establishments of different firm size classes exhibited strong heterogeneity in their responses to the COVID-19 recession.

And considering expanding and opening establishments together, there is also strong firm-size heterogeneity in how the COVID-19 recession disrupted the job creation capacities of firms. This is evident from the share of the employment damage at job creating establishments out of total COVID-19 recession impact as it increased monotonically as firm size decreased (Table 2, Ratio 8). While about two-tenths of total job losses due to COVID-19 at the very small firms were caused at job creating (expanding and opening) establishments, it is only one-tenth at the very large firms.

The heterogeneity is also evident in the deceleration of the job creation from their baseline levels of 2019 (Table 2, Ratio 9). Large firms saw the severest COVID-19 recession impact as they were deeply injured at both expanding and opening establishments. Job creation of medium and very large firms was moderately impacted, mainly through their expanding establishments. Finally, at least with this measure, the small and very small firms

can be considered mildly impacted by the COVID-19 recession. But even as this deceleration is smallest for very small firms, it is relatively large enough to make their share of the reduction in job creation out of the COVID-19 recession impact largest (Table 2, Ratios 8 and 9).

4. Job destruction at contracting establishments

The other determinant of the net employment change is job destruction which is defined as the sum of jobs destroyed at contracting establishments and closing establishments. Statewide, COVID-19 caused a sizeable jump in the number of jobs destroyed at contracting establishments raising them by 291,480 jobs, a massive increase of 347% from the March-April 2019 levels. This loss is the chief part of the total COVID-19 recession impact on net employment change (71% of the 410,736 jobs lost).

The surge in jobs terminated by contracting establishments because of the COVID-19 recession was universal across all firm size classes. However, there were substantial differences between firm size classes in how the COVID-19 recession ravaged employment at contracting establishments. This firm heterogeneity is solid no matter the relative measure used for comparison.

First, comparing firm size classes according to their ratios of COVID-19 recession impact on contracting establishments to total impact on net employment change reveals sizeable differences (Table 2, Ratio 11 and Figure 2). In fact, this ratio increases remarkably as firm size increases, starting at 23% for the very small firms and peaking at 88% for the very large firms. This relationship indicates that there were impressive differences in how firms of different sizes dealt with the COVID-19 onslaught. The very large firms were able to mostly reduce employment levels at their establishments, while as firm size got smaller this strategy was not enough by itself.

Second, relating the increase in jobs terminated due to the COVID-19 recession to the level of jobs terminated in March-April 2019 yields a similar monotonic relationship with firm size (Table 2, Ratio 12). Starting from the high end at the very large firms, the additional 121,607 jobs terminated as a result of COVID-19 in March-April 2020 represented an increase of nearly three-folds (or 284%) from the number of jobs terminated in March-April 2019 which stood at 42,857 jobs. As firm size drops from very large to the small and very small size classes, this rate drops to 115% and 56%, respectively.

Finally, relating the increase in jobs terminated due to COVID-19 to the level of employment also shows significant firm heterogeneity, although not in a monotonically fashion with firm size as with the previous two measures. Instead, this rate seems to follow the inverted-V shaped pattern; as firm size shifts from very small to very large size classes, the rate rises, reaches a maximum at medium firms, then falls (Table 2, Ratio 13). Indeed, this rate varied from a low 3% at very small firms to a high of 15% at medium firms.

Thus, as COVID-19 hit the state many firms reduced the employment levels of some of their establishments as one of the possible responses to weather the storm. However, firm size appears to have played a major role in the extent to which different firms applied this strategy. While very large and large firms used it extensively, small, and very small firms were only able to use it moderately, as shown by the ratio of COVID-19 impact on contracting establishments to total COVID-19 impact on net employment change. In addition, firm size also influenced the pace at which COVID-19 forced these establishments to reduce their payrolls, with fastest pace arising not at very large or large firms but in medium firms. Finally, while no firm size was found to be most damaged by COVID-19 by all three indicators, contracting establishments of very small size firms were the least impacted by COVID-19 by all three indicators.

5. Job destruction at closing establishments

The other strategy, more painful, available to firms is to completely close some establishments, i.e. to reduce employment to zero. Statewide and before COVID-19, closing establishments shed 25,977 jobs in March-April

2019. But when COVID-19 rolled in, closing establishments eliminated 98,429 jobs in March-April 2020, a dramatic spike of almost three-folds (279%). In other words, closing establishments contributed nearly one-fifth (18%) to the overall impact on net employment change.

Applying our three indicators to jobs destroyed at closing establishments exhibit, again, strong firm heterogeneity in COVID-19 impact by firm size (Table 2, Ratios 14 - 16).

The first indicator, the ratio of COVID-19 impact on employment of closing establishments to the total COVID-19 impact on net employment change decreases as firm size increases, falling from 58% in the very small firms to only 2% in the very large firms (Table 2, Ratio 14, and Figure 2). This relationship is opposite to the one observed for contracting establishments and implies that as firm size gets smaller the damage of COVID-19 to employment gets more concentrated at closing establishments.

Another indicator that shows this inverse relationship with firm size is the ratio of jobs terminated because of the COVID-19 recession to the employment level. This rate is highest, at about one-tenth, for the very small and small firms, then consistently declines to a low of two-tenths of a percent for the very large firms (Table 2, Ratios 16).

The last indicator, the ratio of jobs terminated because of the COVID-19 recession to the "normal" level of jobs terminated in March-April of 2019, also highlights the tremendous heterogeneity by firm size in jobs destroyed at closing establishments but through a non-monotonic relationship that follows the inverted-V shape pattern (Table 2, Ratios 15). Starting with the very small firms the rate is 132%, then it increases to 298% for the small firms before it reaches a shocking maximum of 567% for medium firms. At these medium firms, jobs lost at closing establishments jumped from 5,751 jobs in March-April of 2019 to 38,334 jobs in March-April of 2020, a jump of 32,583 jobs nearly half of all jobs lost at closing establishments due to the COVID-19 recession. Then at the very large firms, the jump is smallest (74%), surprisingly, leading to the tiniest job loss due to the COVID-19 recession: 2,977 jobs (Table 1).

Thus, analogous to the previous three components of net employment change, firm size is an influential factor in the seriousness of COVID-19 recession damage to employment resulting from establishment closures. While in very small firms job losses from closing establishments accounted for nearly three-fifths of employment losses provoked by COVID-19, the very large firms were able to escape with minimal damages to employment from closing establishments by all three indicators.

Conclusions

This article reviewed how the COVID-19 recession impacted jobs of different firm size classes using monthly business employment dynamics. Some of the main conclusions are:

- There is significant firm size heterogeneity in how firms responded to the pandemic during its first two months.
- In terms of net employment change, small and medium firms, those with employment between 5 and 49 jobs, suffered the strongest COVID-19 impact while very large firms bore the softest impact.
- Job creation at expanding establishments was most impacted at medium and large firms and least impacted at the very large firms.
- Job creation at opening establishments was most impacted at very small firms and least impacted at the very large firms.
- Job destruction at contracting establishments was most impacted at very large firms and least impacted at the very small firms.
- Job destruction at closing establishments was most impacted at very small and medium firms and least impacted at the very large firms.

These results underscore that while average or overall measures are important to have a general appreciation of how the COVID-19 recession (or any other shock) impact employment, understanding heterogeneity (how different businesses by size are affected) is important in having a clear picture of the real damage of the shock and the effectiveness of policies put in place to deal with it. The business employment dynamics uncover the many variations that are inherent in the labor market and are missed in the standard measures, such as net employment change. Moreover, these variations are certainly driven by further heterogeneity in other factors, such as industry, occupations, wages, race and gender of the workforce, and access to capital, among others.

Finally, how the COVID-19 recession impact on job creation and job destruction evolved at the different types of establishments which requires an analysis of COVID-19 impact on establishments is discussed in Article 3 of 3.

Assessing the Initial Impact of the COVID-19 Recession on Minnesota Businesses: Executive Summary

A Note on the Methodology Used to Assess the Initial Impact of the COVID-19 Recession by Firm Size Class (1 of 3)

Assessing the Initial Impact of the COVID-19 Recession on Employment by Firm Size Class (2 of 3)

Assessing the Initial Impact of the COVID-19 Recession on Establishments by Firm Size Class (3 of 3)