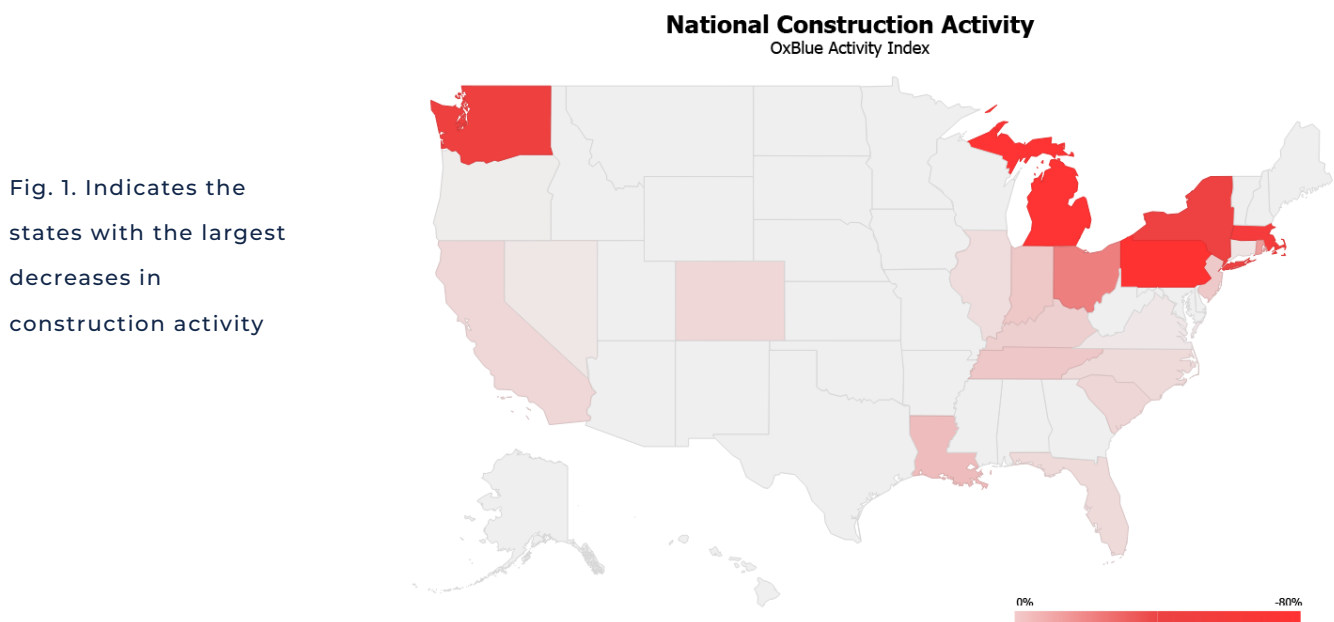OxBlue®

ANALYSIS OF U.S. CONSTRUCTION ACTIVITY USING A.I.

OXBLUE ACTIVITY INDEX REPORT - APRIL 7, 2020

As the coronavirus (COVID-19) pandemic continues to spread across the United States, the construction industry faces incredible challenges and difficult decisions. Because we're business owners in the trade ourselves, OxBlue knows the burden this creates. We understand that it's critical for companies to be able to separate the noise from the facts and make data-driven decisions.

The OxBlue Activity Index, a measure of domestic construction activity, will be updated on a regular basis as this dynamic situation develops. Unlike many macroeconomic indicators that tend to lag, the OxBlue Activity Index is based on near real-time field data, created by measuring job site activity and comparing it to previous milestones. Though the data is pulled from active projects, the data has been anonymized to ensure privacy.

OxBlue utilized its proprietary artificial intelligence (AI) tools and computational resources to measure the effects of the coronavirus (COVID-19) pandemic on construction across the United States. Though previously unannounced, OxBlue's AI capabilities for measuring construction activity levels had already been validated based on field trials. The tool was originally developed to assist OxBlue clients in understanding construction activity on their projects. As the crisis began to worsen, OxBlue began to analyze data at a national level in order to share timely and actionable data with the construction industry.

National Construction Activity
OxBlue Activity Index

Fig. 1. Indicates the states with the largest decreases in construction activity

0%   -80%

The full analysis covered all 50 states and more than 100 metropolitan areas, and it included data from over 150,000 unique images and thousands of unique construction projects. The time period in this analysis includes the 22 workdays (weekdays) during the month of March 2020. The current baseline for the OxBlue Activity Index is the average activity level for the days from March 1st to March 19th, the date Pennsylvania issued its shelter-in-place order. It should be noted that the data analyzed is from commercial construction projects and excludes single-family residential construction.

THE TWO REALITIES

The national level of construction activity (as measured by the OxBlue Activity Index) declined only slightly by approximately 5% in March, based on a weighted average of the construction volume for each state. March construction activity in 37 states either declined by less than 5% or actually increased. In 7 states, the construction activity declined between 5% and 25%. Construction declined more dramatically between 25% and 77% for the remaining 6 states.

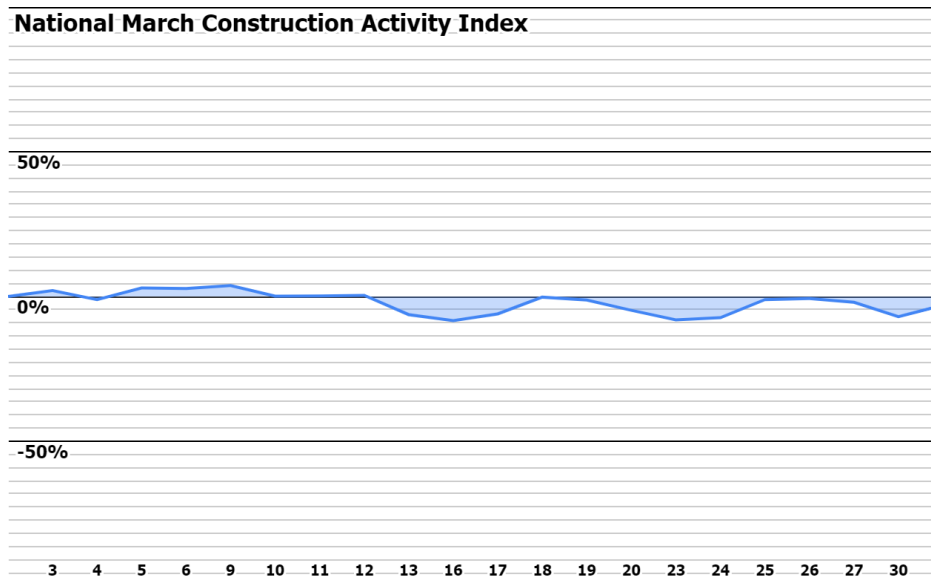**National March Construction Activity Index**

Fig. 2. National March Construction Activity

The 6 states with large declines have caused the majority of the national construction decline. Pennsylvania, which issued a stay-at-home order on March 19th that requires the closure of all non-life-sustaining businesses, experienced the most dramatic drop of approximately 77% decline. Michigan has experienced an approximately 74% decline in construction activity after a stay-at-home order on March 23rd.
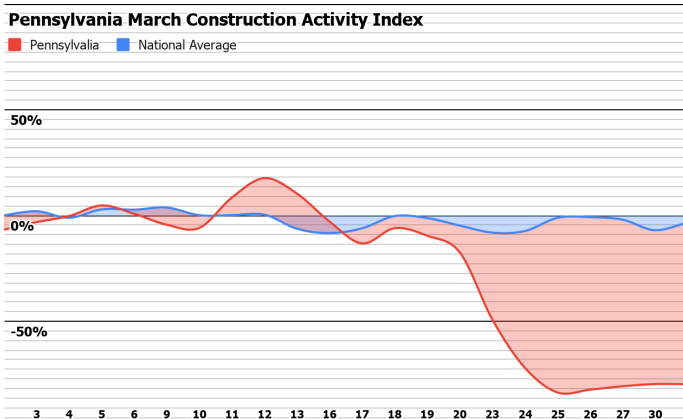
Pennsylvania March Construction Activity Index

Fig. 3. Pennsylvania March Construction Activity

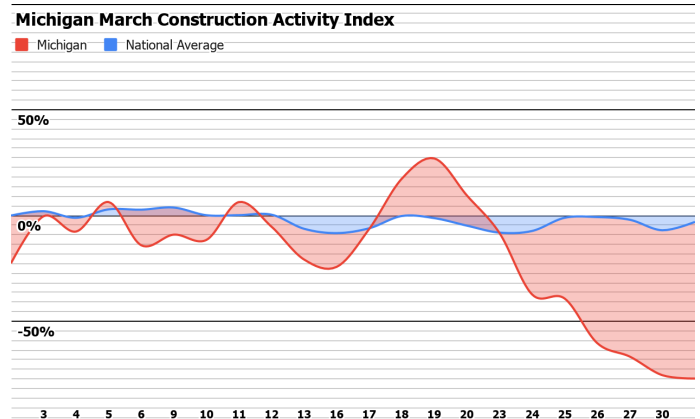**Michigan March Construction Activity Index**

Fig. 4. Michigan March Construction Activity

Other states with traditionally high construction volumes experiencing significant change include Massachusetts (57% decline), Washington (45% decline), New York (43% decline) and Ohio (25% decline).
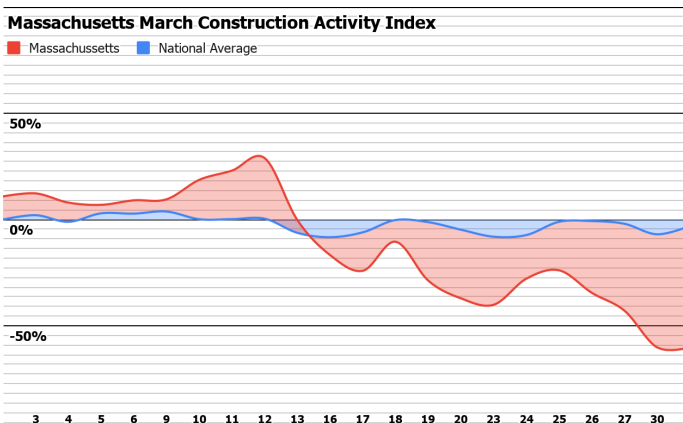
Massachusetts March Construction Activity Index
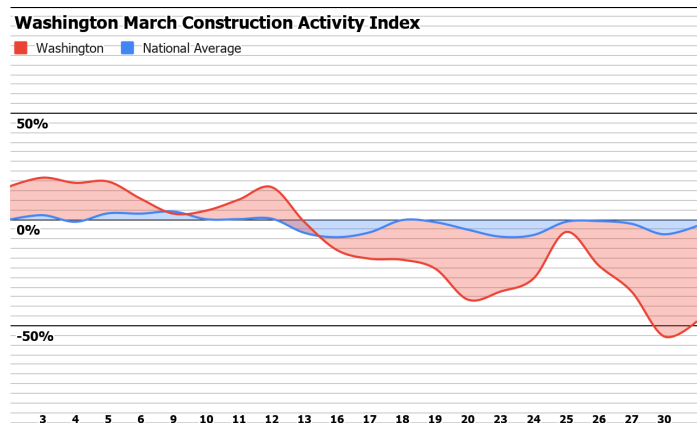

Fig. 5. Massachusetts March Construction

Washington March Construction Activity Index

Fig. 6. Washington March Construction

New York March Construction Activity Index

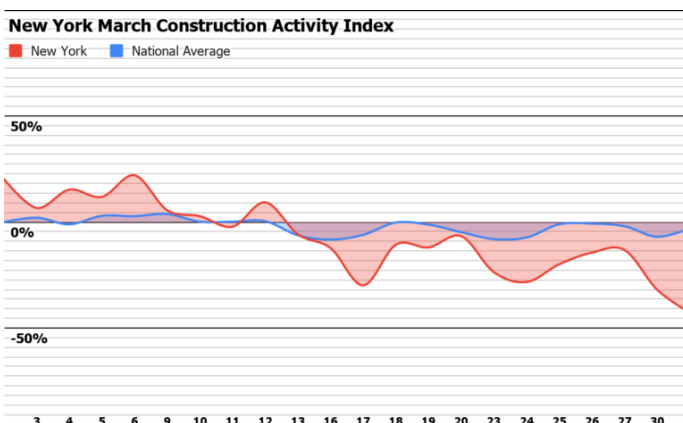Fig. 7. New York March Construction

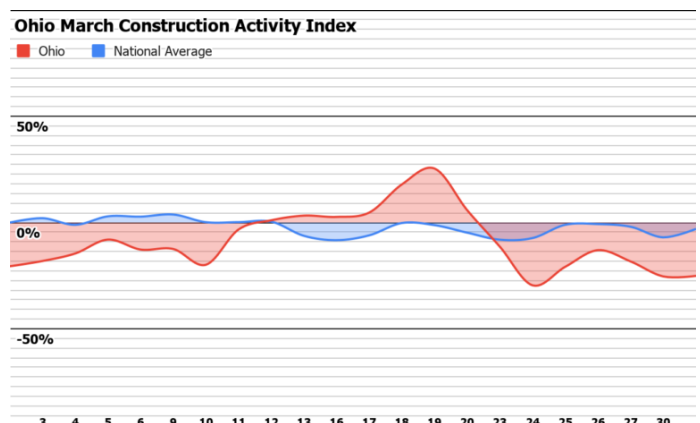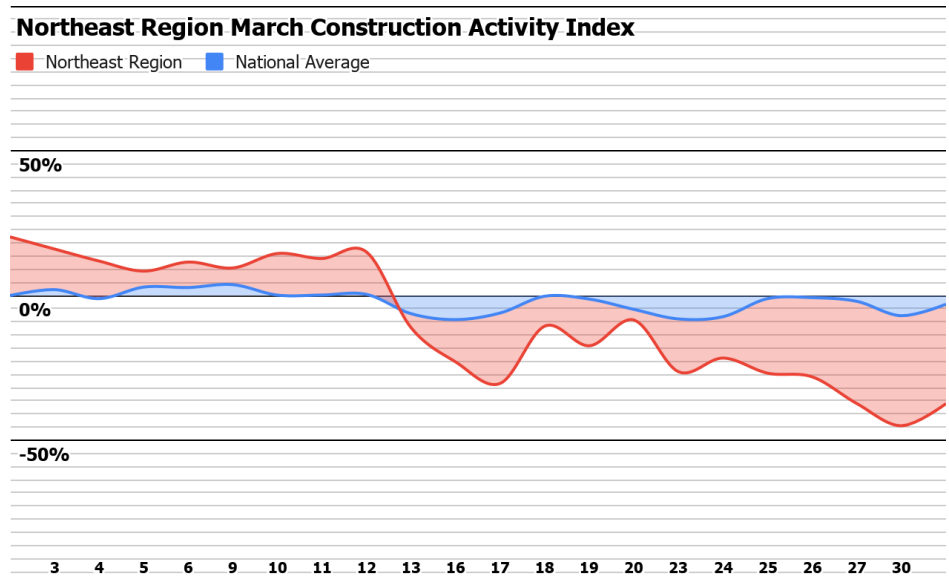**Ohio March Construction Activity Index**

Fig. 8. Ohio March Construction

On a regional basis, the most significant change to the OxBlue Activity Index has been an approximately 34% decline in the northeast, relative to the level measured prior to Pennsylvania's March 19th stay-at-home order.

Fig. 9. Northeast Region March Construction Activity

Northeast Region March Construction Activity Index

■ Northeast Region   ■ National Average

50%

0%

-50%

3 4 5 6 9 10 11 12 13 16 17 18 19 20 23 24 25 26 27 30

By contrast, 12 states who have not yet issued shelter-in-place orders have seen an increase in construction activity. This is offsetting the declines seen in northeastern states and in metropolitan areas.

Unfortunately, we are still early on in this crisis. We will share regular updates and additional information as data from across the country is accumulated and analyzed. For more information and resources on how the coronavirus (COVID-19) pandemic is affecting construction, please visit the following:

- ◆ Is Construction Essential in Your State (https://bit.ly/3bWSJdG)
- ◆ State guidance on construction projects (https://bit.ly/2Rjg55c)
- ◆ Latest Updates On The Coronavirus Pandemic (https://bit.ly/2RlNKLJ)

If you have any questions, please feel free to contact us at (888) 849-2583 or visit oxblue.com