Data Visualization helps Wisconsin Courts in the Pandemic

As courts respond to the pandemic in 2020, Diane Robinson of the Court Statistics Project (CSP) interviewed Tyler Brandt (TB) of the Office of Court Operations in the Wisconsin Director of State Courts Office.

CSP: Why do you use data visualization in the Wisconsin courts?

TB: Data visualization allows court leaders to see at a glance what is happening in their courts, identify emerging issues or trends, and address potential problems quickly. While the same information can be garnered from spreadsheets, seeing the data helps court leaders better understand problem areas and effectively work on solutions.

CSP: You shared a chart of weekly events held. What does this chart show?

TB: This chart shows the number of in-court events held in Wisconsin circuit courts for all case types, including traffic, by week, for 2017 through 2020. The number of in-court events held is shown along the vertical axis, while the horizontal axis shows each week. We number the weeks for comparability across years. There are changes we expect to see every year. The weeks of Christmas and New Year's see a 75% drop in activity levels while smaller drops are seen for Memorial Day (week 22), the 4th of July (week 27), and Thanksgiving (around week 47).


Weekly Events Held (2017–2020)
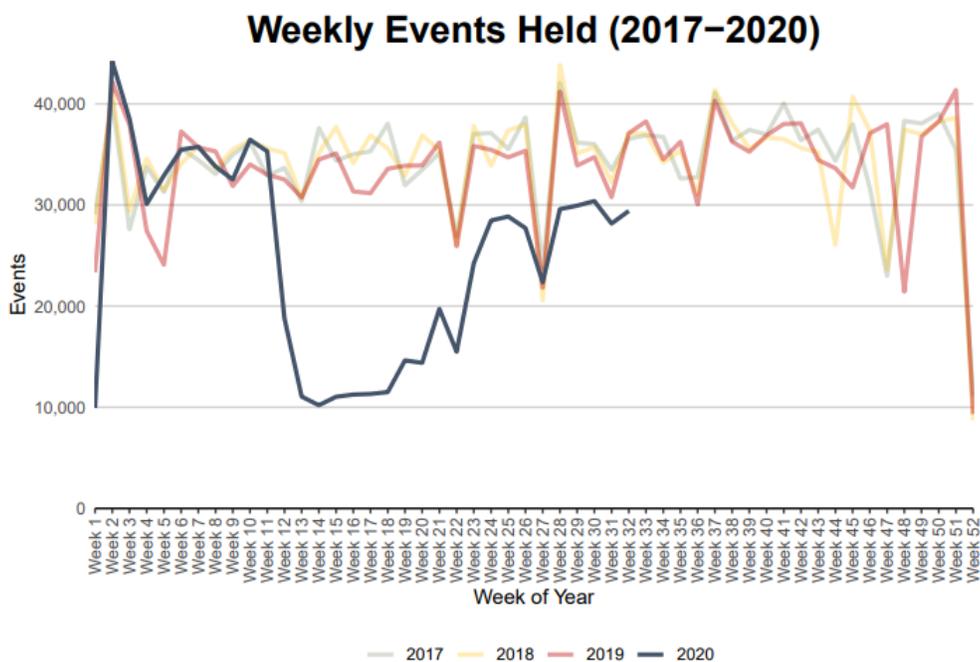
CSP: How has this been helpful during the pandemic?

TB: It makes it easy to see how the pandemic affected court events. Court activities dropped sharply starting in week 12, stayed very low for several weeks, and then began to pick back up in week 18. Events numbered less than a third of expected levels when courthouses closed but are now at about 80% of the expected level, based on prior years.

CSP: Does this mean that Wisconsin courts are out of the woods in terms of backlog?

TB: No, it doesn't. One interesting thing we noticed is that while court events are getting close to normal levels, dispositions are not. We also run a year to year comparison of weekly dispositions. As with events, there was a steep decline in dispositions when courts suspended in-person activity. But while the weekly events are close to normal, the dispositions are not. They are about half of what would be expected based on previous years.

Weekly Dispositions (2017−2020)
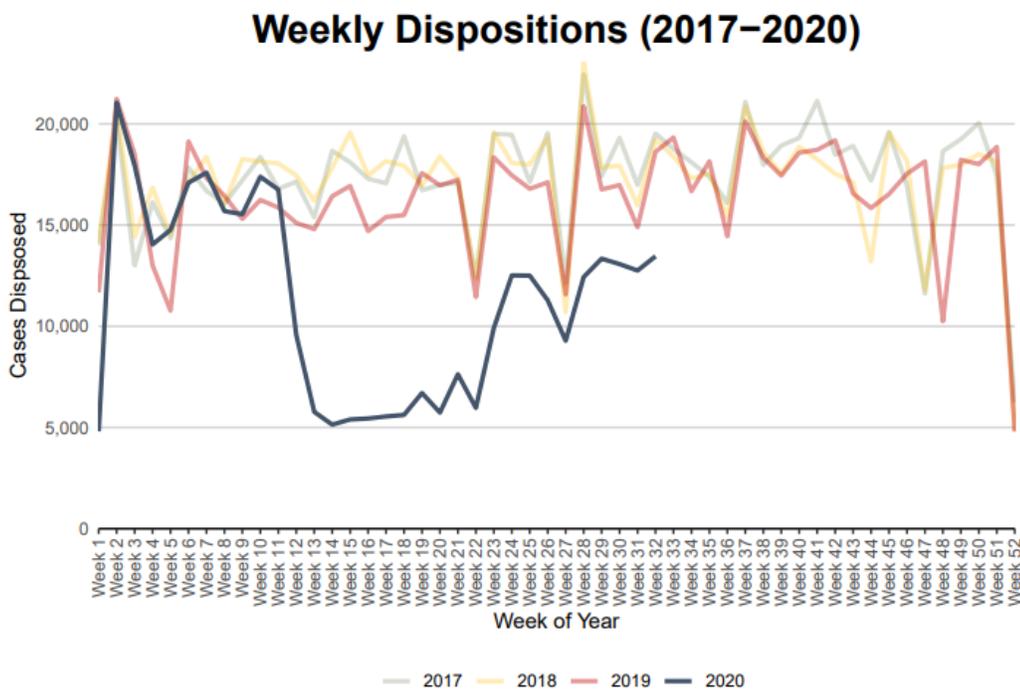
CSP: How does court leadership use this information?

TB: The data is available by district or county or by case types. This allows them to identify possible trouble spots, such as potential areas where backlogs may be building, and determine how to address them. Seeing the data visualized helps them to use it effectively.

CSP: Where do you get the information for this report?

TB: From Wisconsin's case management system, which is a locally developed system called Consolidated Court Automation Programs (CCAP). The information is drawn from judges' calendars, which are integrated with the case management system. This information is used to generate notice of hearings to parties, so there is additional incentive to ensure that the data are timely and accurate.
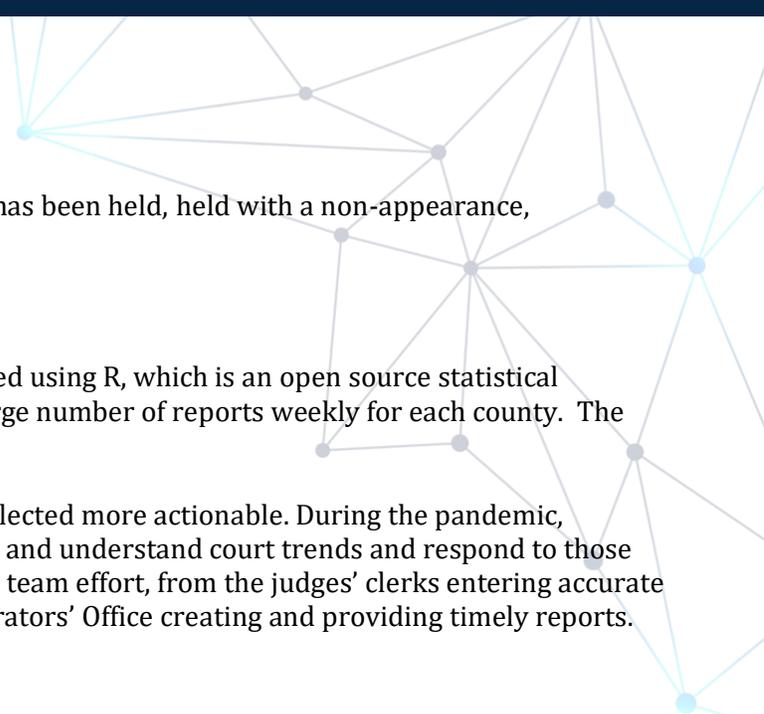
CSP: Who enters the event information into CCAP?

TB: The judge's clerk enters whether the hearing has been held, held with a non-appearance, rescheduled, or canceled.

CSP: How do you extract the data?

TB: Once the data is extracted using SQL it is parsed using R, which is an open source statistical software. R allows Wisconsin to produce a large number of reports weekly for each county. The data can be filtered down to the case type.

Wisconsin's use of data visualization makes the data collected more actionable. During the pandemic, effective data visualization has helped court leaders see and understand court trends and respond to those trends. The data visualization is only possible through a team effort, from the judges' clerks entering accurate information about hearings to the State Court Administrators' Office creating and providing timely reports.