

The Pretrial Dashboards: Using Technology to Provide Judges with an Understanding of Their Pretrial Release and Detention Decisions

*Thomas H. Cohen
Senior Social Science Analyst
Probation and Pretrial Services Office*

WHEN A PERSON (i.e., a defendant) is charged with committing a federal offense, judicial officials have the discretion to determine whether that defendant should be released pretrial, subject to the criteria required by the Eighth Amendment and under 18 U.S.C. §3142 of the federal statute. Under both guiding documents, detention is reserved only for rare cases where “no condition or combination of conditions will reasonably assure the appearance of the person as required and the safety of any other person and the community” (see 18 U.S.C. §3142). The decision to release a defendant into the community or detain the defendant until the case is disposed is of crucial importance. Not only can a defendant’s liberty, and therefore, constitutional rights, be constrained by the detention decision, but research has shown that subsequent case outcomes (including the likelihood of conviction, severity of sentence, and long-term recidivism) can be negatively affected when pretrial detention is mandated (Gupta et al., 2016; Heaton et al., 2017; Oleson et al., 2014).

Despite the crucial, some would even say pivotal, role (Carr, 2017) of the pretrial release decision in the federal system and the

various provisions and efforts aimed at reducing unnecessary detention, the federal pretrial detention rate remains at a level that has been viewed as high and a source of concern. For example, the percentage of defendants released pretrial (excluding undocumented non-citizens) has declined from 55 percent in fiscal year 2008 to 47 percent in fiscal year 2017 (Cohen & Austin, 2018). Since 2017, the release rate for defendants who are not undocumented non-citizens has remained relatively stable; in fiscal year 2022, for example, the release rate for these defendants was 47 percent (AO, Table H-14B).

In response to these concerns about increasing rates of pretrial detention, the Probation and Pretrial Services Office (PPSO) of the Administrative Office of the U.S. Courts (AO) was tasked with developing a series of statistical dashboards that would allow judges to view their own pretrial release rates by a variety of characteristics and compare them to the nation or their circuit or the district where they preside. These dashboards were created and then disseminated to the federal judicial community in early 2022 and updated since then. Since their release, judges have had ready access to their release and detention

decisions for the first time. Before the advent of the pretrial dashboards, this information for the most part was not readily available to judicial officials; rather, judicial officials who were interested in reviewing their release and detention decisions had to rely upon data manually compiled for them by U.S. probation or pretrial services officers within their districts.

This article will provide an overview of the pretrial dashboards that have been created for federal judges, including 1) background about the processes that led to the creation of the dashboards, 2) specific examples of information made available to judges through the dashboards, 3) trainings that have been conducted to introduce judges to the dashboards and the potential impacts of training on dashboard usage, and 4) future implications of the dashboards for the federal pretrial system and the potential of these dashboards to be further disseminated to the public.

Pretrial Dashboards Background

The pretrial dashboards were initially developed in response to requests by judges from the Magistrate Judges Advisory Group (MJAG) and other judicial entities (e.g., Criminal Law

Committee) for a statistical tool that would allow judges to examine their own decision-making on pretrial release. Moreover, these dashboards were intended to further the requirement in 18 U.S.C. § 3154(9) that pretrial services “develop and implement a system to monitor and evaluate bail activities, provide information to judicial officers on the results of bail decisions, and prepare periodic reports to assist in the improvement of the bail process.” It was also anticipated that the dashboards would provide a tool for judges as well as probation/pretrial chiefs to monitor release rates and encourage dialogue aimed at reducing various forms of unnecessary detention.

Before the advent of the dashboards, judges did not have the capacity to readily examine their own pretrial release and detention decisions. There was no systematic way for judges to determine the number and percentage of defendants they released pretrial, the extent to which their release decisions varied by key characteristics (e.g., most serious offense charge, pretrial risk assessment (PTRA) risk scores, demographic characteristics), and the rates at which those they placed on release engaged in such pretrial misconduct as missing their court appearances, having an arrest for new crimes, or being revoked on technical violations. Any judge interested in reviewing this information would have to manually collect pretrial data about defendants appearing before their court, a time consuming and laborious process.

The dashboards address these informational gaps for the first time by providing a myriad of pretrial metrics through an interactive format. Specifically, judges can use these dashboards to explore their own pretrial release decisions, ascertain how these release decisions vary by certain criteria (such as PTRA risk scores, most serious conviction offenses, and demographic characteristics), and determine how many defendants they release commit pretrial violations (pretrial rearrest, failure to appear (FTA), or revocation). Judges can also use this information to compare their decisions with the release patterns manifested at the national level or in the circuit/district where they work.

Construction of the Pretrial Dashboards

The pretrial dashboards were constructed through a two-stage process. Initially, the raw pretrial data were obtained from the AO’s Probation and Pretrial Automated Case Tracking System (e.g., PACTS). These

data were then exported to the Tableau software platform, which provides users with the capacity to create and display interactive analytics. A series of dashboards were constructed and reviewed by subject matter experts within PPSO, who provided crucial assistance and advice about the dashboards’ content and graphical design. The dashboards have since been reviewed by several oversight committees, including the Magistrate Judges Advisory Group, Criminal Law Committee, and senior executive staff with PPSO and the AO, who provided additional suggestions and comments.

The dashboards contain information on pretrial activations encompassing ten-year time frames. The initial series of dashboards disseminated to the Judiciary in 2022 included pretrial activations between fiscal years 2011 through 2020, while the 2023 update included pretrial activations that took place between fiscal years 2012 through 2021. The dashboards will be refreshed again in 2024; when this occurs, the dashboards will contain pretrial activations for fiscal years 2014 through 2023. While the dashboards include relatively recent pretrial data, it is important to acknowledge that they do not provide real-time data on judicial release and detention decisions. Hence, judicial officials and other users may decide to review them intermittently, because they remain unchanged for periods spanning 12 months.

During the construction of these dashboards, several limitations were placed on them that should be noted. First, it is crucial to acknowledge that the dashboards were built to enable judges to view their own release decisions but not those of other judges. In other words, judges are unable to use these dashboards to examine and inspect the decisions of other judges within their district or in other districts. Second, federal probation and pretrial services officers are not provided with access to the dashboards at this time because of concerns that, by highlighting the historical release practices of individual judges, the dashboards might hinder officers from making independent release and detention recommendations. It was, however, agreed that chief and deputy chief probation and pretrial services officers would be provided with judge-identifying release and detention information, because these officials were best positioned to work with judges on ways to reduce unnecessary pretrial detention and are statutorily mandated under 18 U.S.C. §3154(9) to provide information and periodic

reports to judicial officers that assist in the improvement of the bail process. The probation/pretrial chiefs and deputies can only examine judge-specific data within their own districts; they are precluded from viewing the decisions of judges in another district. Last, demonstrations of the dashboards were provided to officials within the U.S. Department of Justice and the Federal Defenders Office; both entities expressed interest in having a modified version of the dashboards, without any judge-specific information, made available to them through the U.S. Courts website.

An Example of the Pretrial Dashboards

This section provides visual examples of the dashboards through a series of screenshots. The first screenshot shows what the typical dashboard looks like. Specifically, this dashboard presents information on yearly release rates in two fields. The upper field provides national-level yearly release data, while the bottom field displays yearly release data for a particular judge whose name has been deidentified. A judge examining these dashboards can see how many defendants that judge had released for a period spanning fiscal years 2012 through 2021 and, importantly, compare those release rates to those of the nation. (See Figure 1.)

The next screenshot demonstrates the interactive nature of these dashboards. This example illustrates a judge’s ability to select certain criteria using various filters placed on the dashboard’s right side. In this instance, the application of these filters allows judges to review their release outcomes for only U.S. citizens defendants. Note that the filter applies to both data panels, meaning that the national- and judge-level release rates have been filtered to include only U.S. citizen defendants. Undocumented and documented non-citizens and persons of unknown citizenship have been removed from the dashboards. (See Figure 2, page 12.)

The next screenshot further highlights the types of filters available on the pretrial dashboard tool. In this screenshot, the release rates have been further filtered to include only U.S. citizen defendants with cases activated in the Eleventh Circuit, where this judge hears cases. For this dashboard, the release rates have been further adjusted so that the upper data panel reflects the release rates for defendants with cases activated in the Eleventh Circuit. (See Figure 3, page 13.)

Another example of the interactivity of

these dashboards is shown in the next screen shot. Here cases have been further filtered to reflect pretrial activations involving U.S. citizen defendants charged with drug offenses. (See Figure 4, page 14.)

It should be noted that other filters could be applied to these dashboards. For example, users could employ filters encompassing the PTRAs risk score, consent to detention cases, and district of case activation to further refine these pretrial release data.

In addition to highlighting yearly release rates, the dashboards contain a variety of other pretrial metrics, some of which are showcased in this article. For example, judges

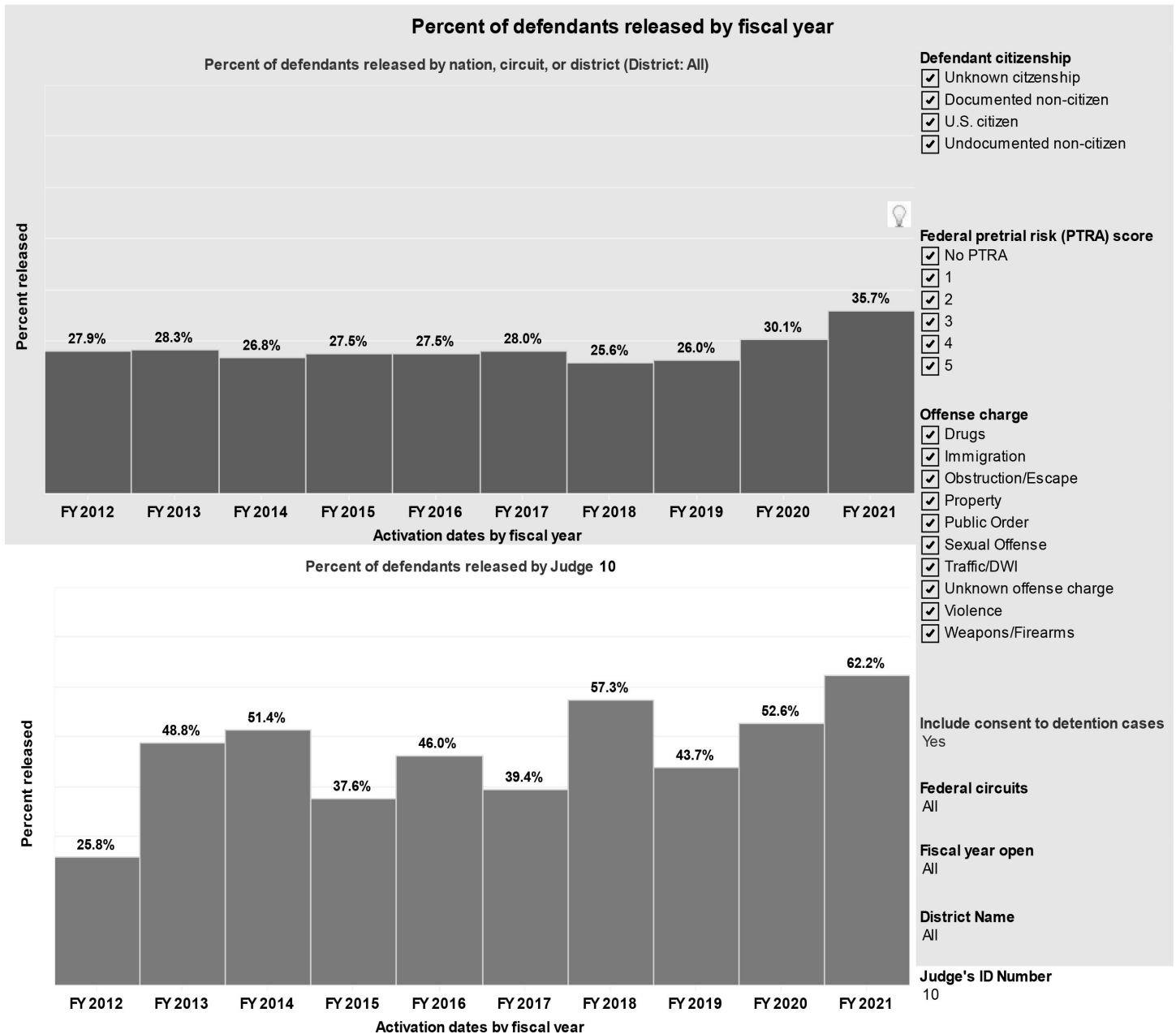
can use the dashboards to examine their release rates by the PTRAs five risk categories.¹ As shown in the screenshot below, the dashboards show release rates declining in a stepwise manner by the five PTRAs risk categories both nationally and for this specific

¹ The PTRAs is an actuarial risk tool used by the federal system to classify defendants by their probability of failure while on pretrial release. The PTRAs places defendants into one of five risk categories; the higher the risk grouping, the more likely according to the PTRAs that a defendant will fail (that is be rearrested, miss a court appearance, or be revoked), while on pretrial release. See Cohen and Lowenkamp (2019) for an overview of the PTRAs risk tool and its capacity to predict pretrial violations.

judge. (See Figure 5, page 15.)

Another dashboard provides information on release rates by the most serious offense charge both nationally and at the judge level (see next screenshot). As shown, at the national level defendants charged with traffic/DWI, property, or public-order offenses had the highest release rates, while defendants with violence, weapons, or unknown offense charges were the least likely to be placed on pretrial release. Also, all non-citizen defendants (documented or undocumented) have been filtered out of this dashboard. If the non-citizens had been included, then defendants charged with immigration offenses would

FIGURE 1



have the lowest rates of pretrial release (data not shown). (See Figure 6, page 16.)

Another dashboard highlighted in this article illustrates this tool's capacity to provide judges with information on how defendants are being detained pretrial. The above data panel provides detention type information, filtering out non-citizen defendants, while the below data panel highlights detention information for a specific judge (again filtering out non-citizen defendants). For the detention dashboard, note that a sizable percentage of detained defendants (43 percent) consented to being detained pretrial. Again, note that users can apply a variety of different filters that would allow them to compare the mechanisms they use for

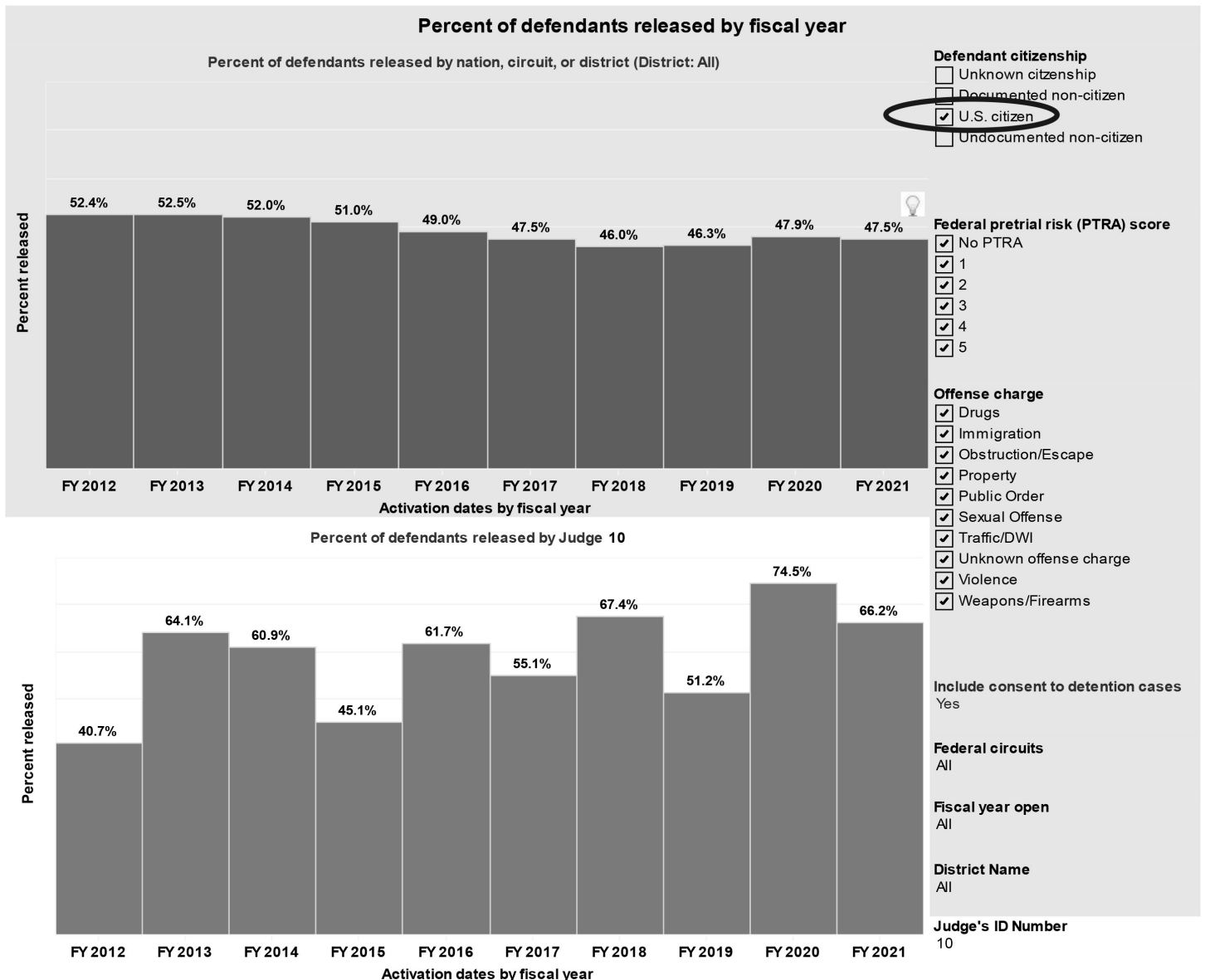
detention with national-, circuit-, or district-level data. (See Figure 7, page 17.)

The last dashboard highlighted in this article showcases how judges can use these tools to better understand the violation rates among their released defendants and examine how these rates vary by the PTRA risk categories. As with the other dashboards, the upper data panel provides national-level information on the percentage of released defendants who were revoked, rearrested, failed to appear (FTA), or had a rearrest for a violent offense across the five PTRA risk categories. Similar to the other dashboards, users could filter out certain case types or assess the violation patterns at the circuit or district level. The below data panel

provides information on violations for a specific judge, which is crucial, because judges can now ascertain of those defendants they release how many were rearrested, failed to appear, or had a pretrial revocation by the five PTRA risk categories. (See Figure 8, page 18.)

While this article provides a general overview of the types of data available in these dashboards, it should be stressed that not all data metrics could be highlighted. Specifically, dashboards have also been generated that allow users to compare release rates across the federal judicial districts, highlight release recommendations by pretrial officers and U.S. attorneys, assess release decisions by a defendant's demographic characteristics (e.g., race/

FIGURE 2



ethnicity and gender), and provide details on the average number of special conditions (such as substance abuse testing and location monitoring) imposed on release defendants.

Dashboard Usage and Trainings

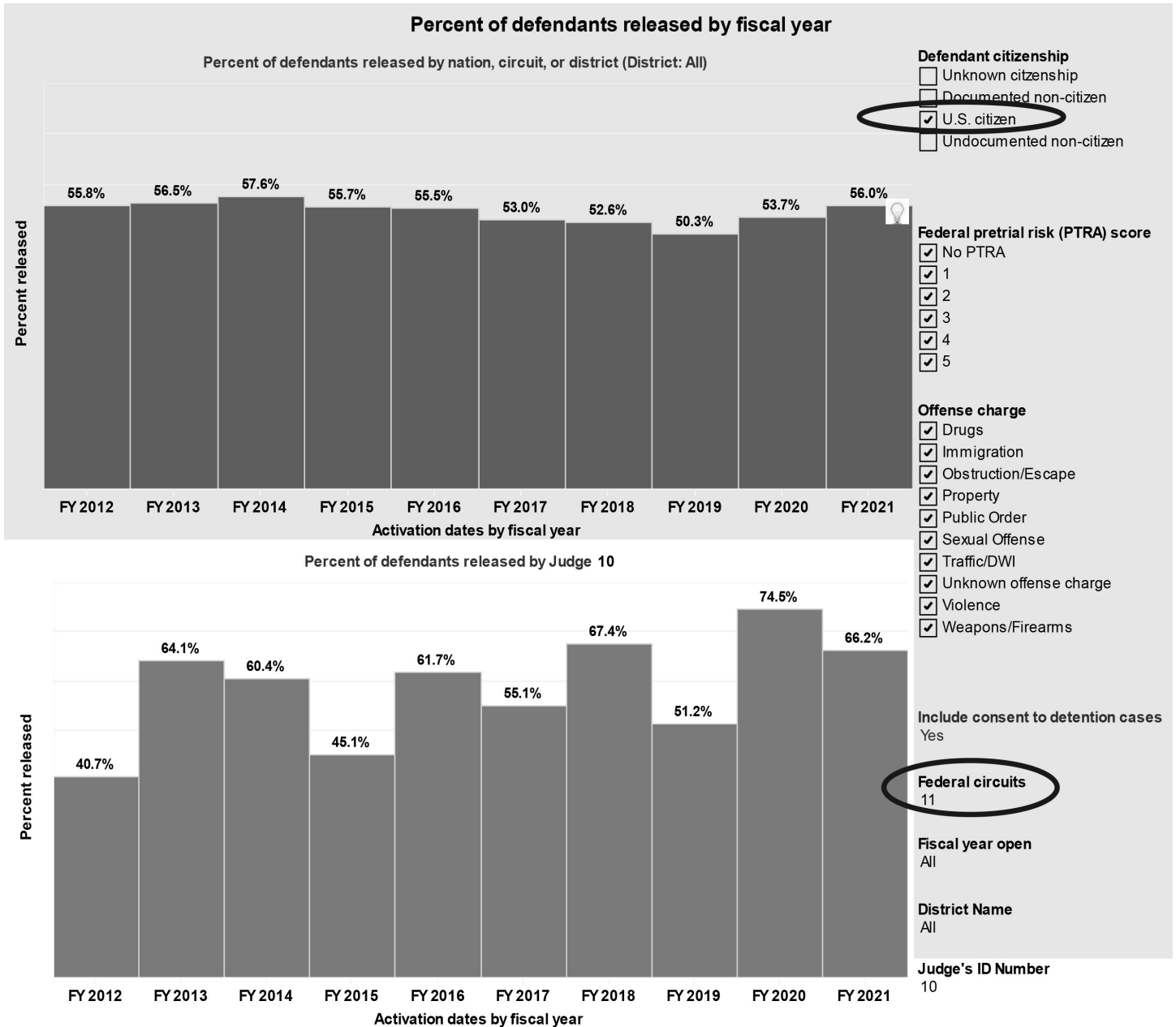
While the dashboards provide judges with a plethora of detailed information about their pretrial release and detention decisions, the overall use of these dashboards has been somewhat limited. During the period encompassing the most recent dashboard data update (late February 2023) and the time that this article was written (early August 2023), a total of 100 magistrate judges, representing 16 percent of all full-time federal magistrate

judges, viewed the dashboards at least once.² Among those judges using the dashboards, 46 percent viewed the dashboards 10 times or more, while 12 percent viewed them only once. Although the dashboards were accessed over 1,000 times on the date that notification of the update occurred—February 17, 2023—since that time, dashboard usage has ranged from 0 to 46 views per day; on most days, the dashboards were accessed an average of about 13 times per day (average was calculated by omitting February dates).

² Article III judges were not included in the usage calculations, because for the most part these judges are not involved in the decision to release or detain federal defendants.

The extent to which probation and pretrial chiefs and their deputies and assistant deputies are using the dashboards since February 2023 release date has also been tracked. Of the 300 probation and pretrial chiefs and deputies with access to the dashboards, a total of 52 chiefs, deputies, and assistant deputies from 40 districts viewed the dashboards from 1 to 54 times. These chiefs, deputies, and assistant deputies accounted for about 17 percent of personnel with access to the dashboards. From February 2023 until early August 2023, the daily usage for chiefs and deputies ranged from 1 to 69 views; on average, the dashboards were accessed by chiefs, deputies, and assistant deputies about 11 times per day.

FIGURE 3



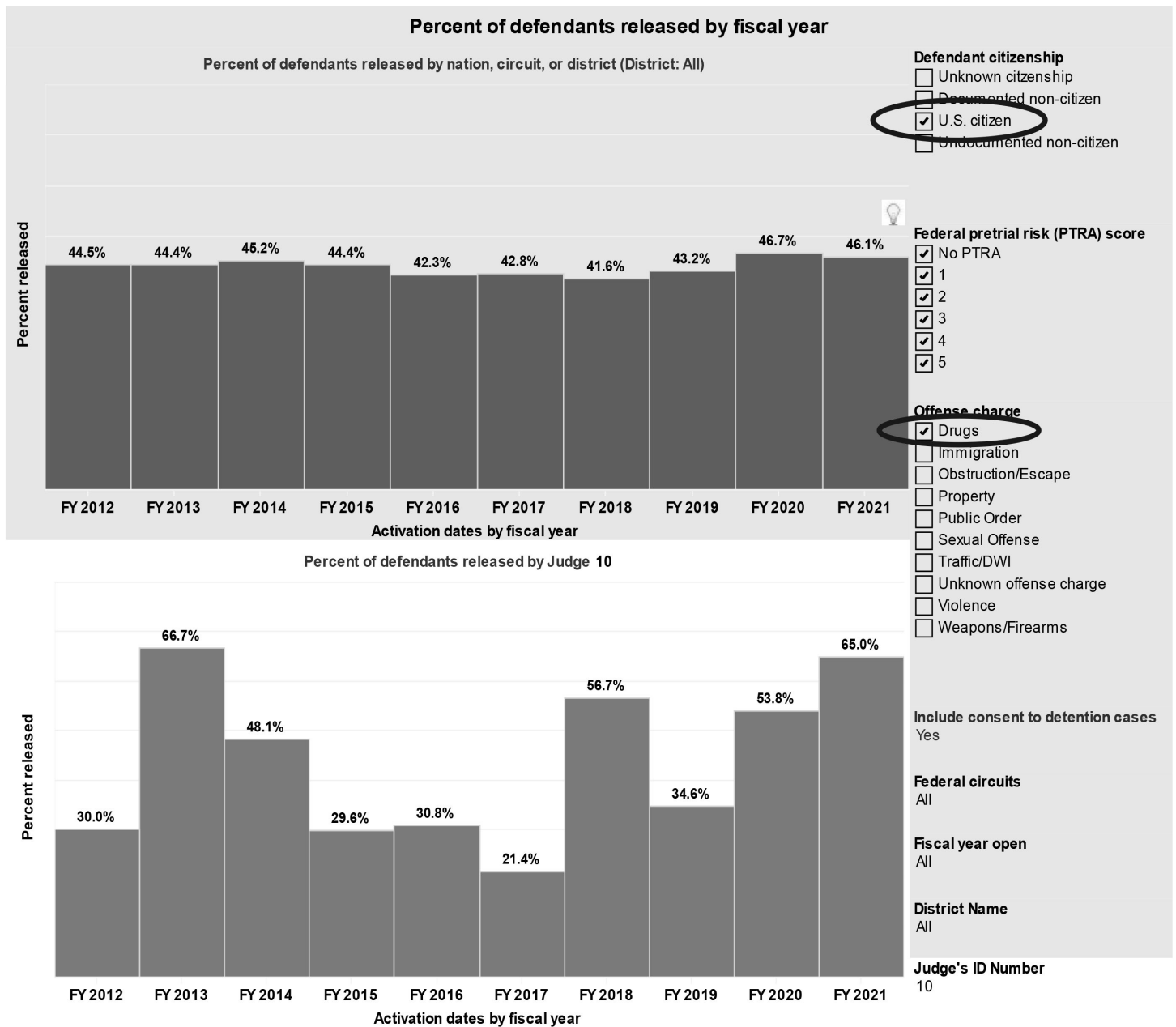
To further disseminate information about the pretrial dashboards to the federal judiciary and potentially increase their overall usage, PPSO, in collaboration with the Federal Judicial Center (FJC), engaged in two national trainings aimed at educating judicial officials about these dashboards. The trainings were conducted in April and July 2023 and encompassed background information about the dashboards, instructions on how to access them, and details on the various pretrial metrics available through these dashboards and their capacity to illuminate judicial-level release and detention decisions. After these trainings, an examination of the number of times judges accessed the dashboards was

conducted. While there was some increase in dashboard usage around the training periods, the spikes in dashboard access were relatively short and did not differ appreciably from other dates where spikes in dashboard use occurred. (see Figure 9, page 18.)

In addition to these national-level trainings, several localized workshops aimed at introducing judges to the dashboards were conducted. These workshops were part of a larger program being implemented at the district level aimed at reducing unnecessary pretrial detention. In the districts where these localized trainings took place, dashboard usage was examined before and after they occurred. After the trainings, some judges in

these districts made more extensive use of the dashboards. For example, in one district two magistrate judges who had not previously used the dashboards began to make extensive use of them after the training; however, the remaining eight judges in this district did not manifest extensive dashboard use. In another example, 3 of the 17 judges made greater use of the dashboards after a training occurred; however, the remaining 14 judges did not use the dashboards more extensively. Last, in a remote training in a district involving relatively few magistrate judges, dashboard use increased for those judges who attended the training workshop.

FIGURE 4



Conclusion and Future Implications for Dashboards

In early 2022, PPSO deployed a series of dashboards that provided judges for the first time with the capacity to examine a wealth of pretrial information to which judicial officers previously had limited access. Specifically, judges can now use these dashboards to examine their own pretrial release patterns and assess the relationships between pretrial decision-making and several factors associated with release (e.g., most serious offense charges, PTRAs risk categories, demographic characteristics, citizenship, etc.). Importantly, judges can use these dashboards to compare their release decisions to pretrial outcomes

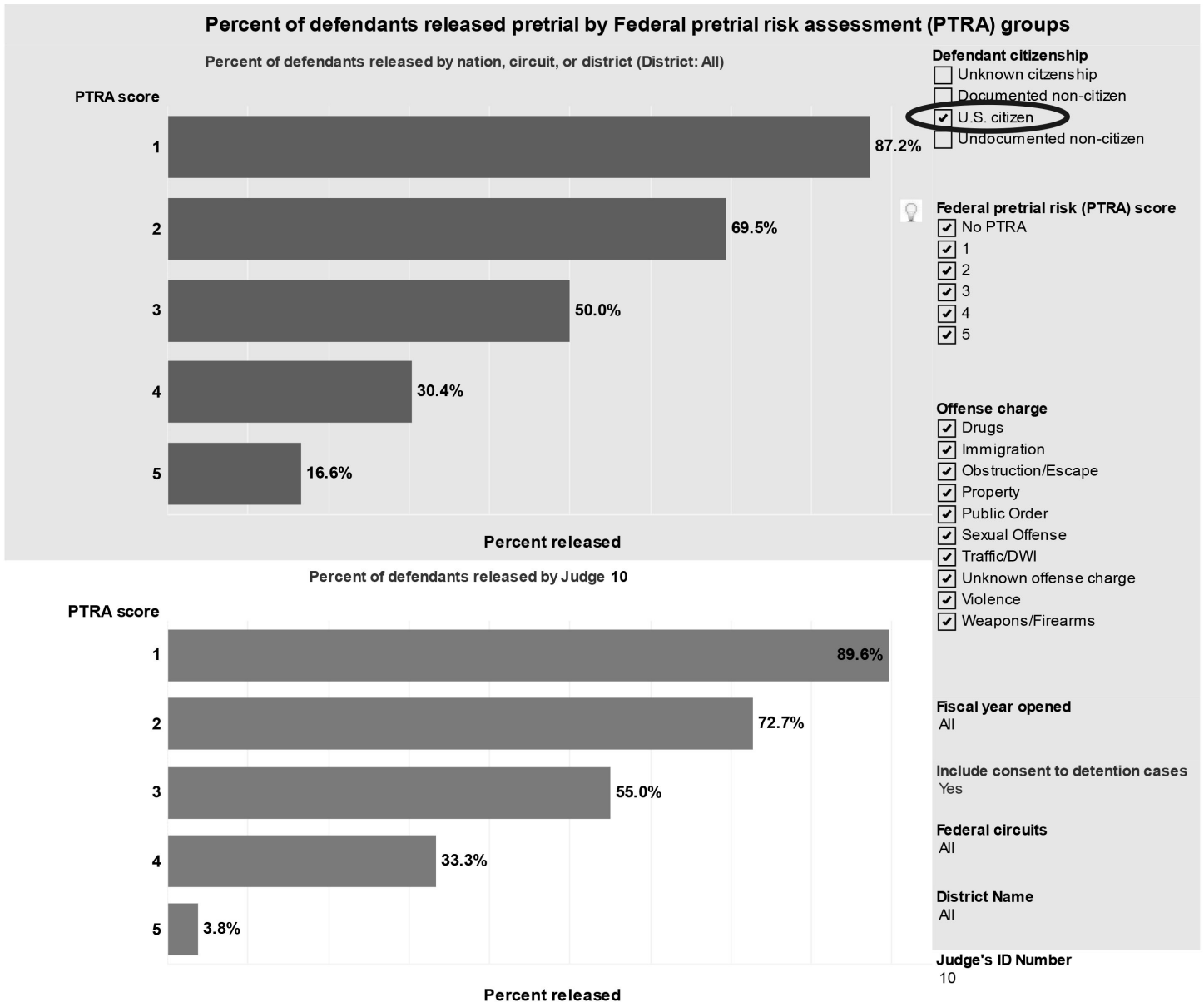
at the national level or the circuit or district where they preside at court. In addition to providing release and detention metrics, these dashboards illuminate information on the types of mechanisms used to detain defendants, the average number of special conditions imposed on released defendants, and the percentage of released defendants who violate their pretrial terms by being rearrested, missing court appearances, or having their release status revoked.

With the advent of the pretrial dashboards, judges now have direct access to data allowing them to analyze their pretrial release and detention decisions. Although the pretrial dashboards provide ready access to data,

unfortunately, their use has not been as extensive as initially anticipated. Over the several months previous to the writing of this article, less than a fifth of all magistrate judges and all probation and pretrial chiefs, deputies, and assistant deputies have accessed these dashboards at least once. These results might have occurred because the dashboard tools are still relatively new to the federal judiciary; perhaps more time is required to acclimate judges and pretrial/probation staff to these interactive systems.

To promote further use of the dashboards, PPSO will continue updating the dashboards yearly; however, in the next dashboard refresh, the dashboards will no longer be providing

FIGURE 5



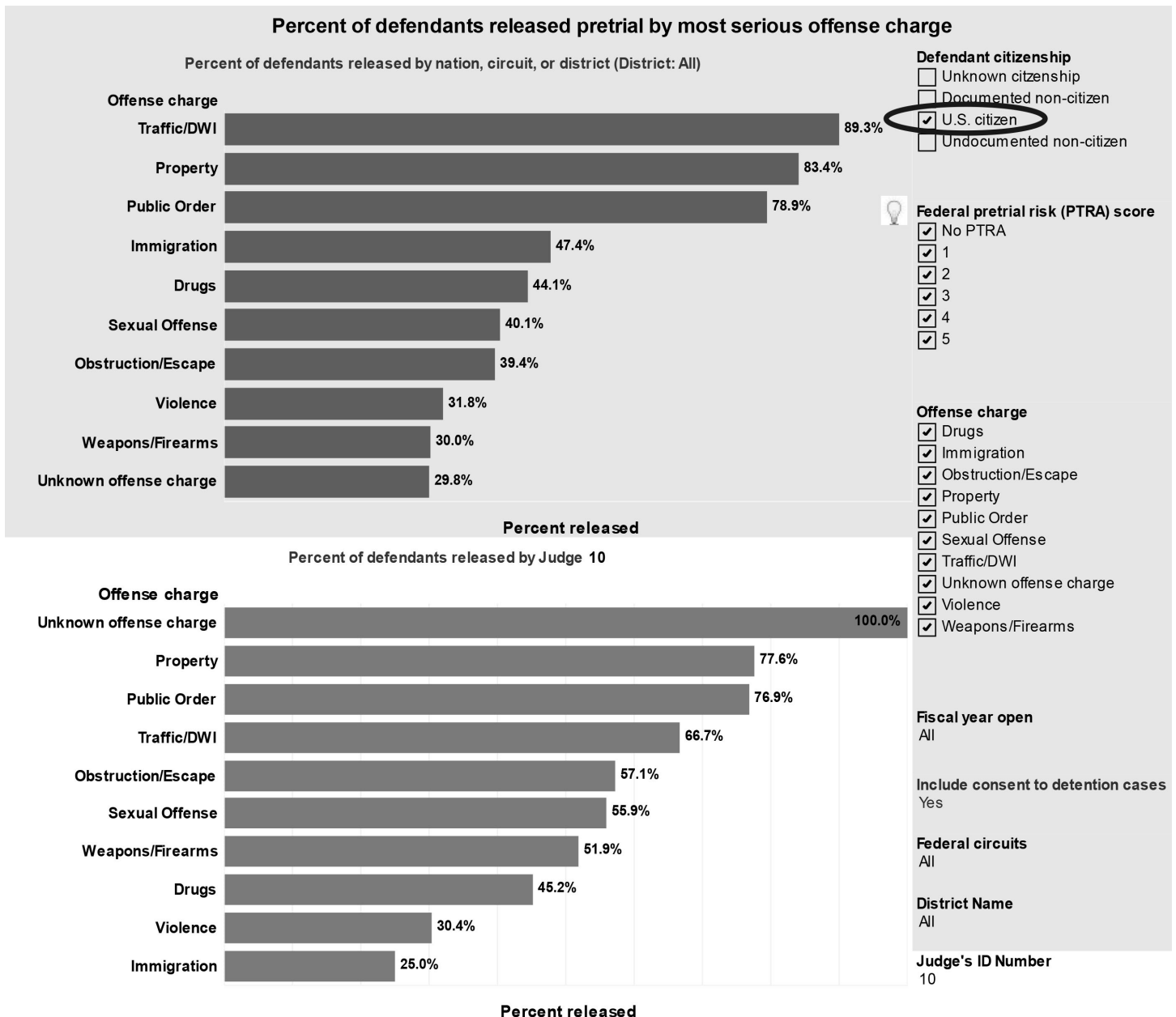
data that is one year behind the current fiscal year. Instead, after the update takes place, the dashboards will include pretrial activation data for the ten-year fiscal time frame between 2014 and 2023. Continued judicial officer training (virtual and in person) and outreach is recommended to enhance use. Previous trainings have focused on providing judges with an overview of how the dashboards can be used to illuminate pretrial decision-making in their districts, and subsequent trainings will continue to advocate for their increased use. Training and outreach on the intricacies of these dashboards can also be provided to probation/pretrial chiefs, deputies, and assistant deputies. Beyond training and outreach efforts, PPSO will need to gather feedback from the MJAG, judicial

officers, and the probation and pretrial community to solicit their thoughts and suggestions on ways to make the dashboards more relevant to the judicial community.

In addition to these efforts, PPSO has considered the importance of making a modified version of these dashboards available to the public. Nationally, the effort to reduce unnecessary pretrial detention requires collaboration across various stakeholder groups. Prior to the initial release of these dashboards, overviews of these tools were provided to several officials within the U.S. Department of Justice and the Federal Defenders Office. Both entities expressed interest in having the dashboards made available to the public on the uscourts.gov website. This version, unlike

the ones currently accessible by judges and probation/pretrial staff, would not contain judge-specific release and detention information; however, it would contain national-, circuit-, and district-level pretrial release data that could be viewed through a variety of interactive filters. In addition to allowing prosecutors and defenders access to these crucial pretrial data, a variety of judicial officials, including Article III judges and newly appointed magistrates, would have access that they currently lack because they hear relatively few federal pretrial cases (e.g., Article IIIs) or (in the case of recently seated magistrates) because they have not been in the system for enough time for their cases to be included in the dashboards. Having a publicly available

FIGURE 6



series of modified pretrial dashboards would provide these judicial officials with the capacity to access these data. Last, researchers, policymakers, and the public could use these dashboards to attain a better understanding of the federal pretrial system.

The pretrial dashboards are a crucial instrument that federal judges can use to understand their release decisions, compare these decisions to national-, circuit-, and district-level data, and assess the extent to which certain types of factors (such as most serious offense charge, PTRAs risk score, and race/ethnicity) are associated with release rates. Moreover, these dashboards provide judges with an opportunity to examine other pretrial metrics, including types of detention,

special conditions imposed, and instances in which those released are rearrested for new crimes, revoked, or fail to appear. In addition to making these key pretrial data available to judges, PPSO has provided probation and pretrial chiefs and their deputies with dashboard access to encourage further dialogue with judges on ways of ameliorating unnecessary detention. While the dashboards are available only to judges and probation/pretrial chiefs and deputies at this time, we hope that eventually they will be released in a modified form to a larger audience of persons with an interest or stake in the federal pretrial system.

References

AO. (2022, September 30). *Table 14-B: Pretrial services release and detention—excluding illegal alien cases – for the 12-month period ending September 30, 2022*. Retrieved August 2, 2023, from <https://www.uscourts.gov/statistics/table/h-14b/judicial-business/2022/09/30>.

Carr, J. G. (2017). Why pretrial release really matters. *Federal Sentencing Reporter*, 29(4), 217–220.

Cohen, T. H., & Austin, A. (2018). Examining federal pretrial release trends over the last decade. *Fed. Probation*, 82, 3.

Cohen, T. H., & Lowenkamp, C. T. (2019). Revalidation of the federal PTRAs: Testing the PTRAs for predictive biases. *Criminal Justice and Behavior*, 46(2), 234–260.

FIGURE 7

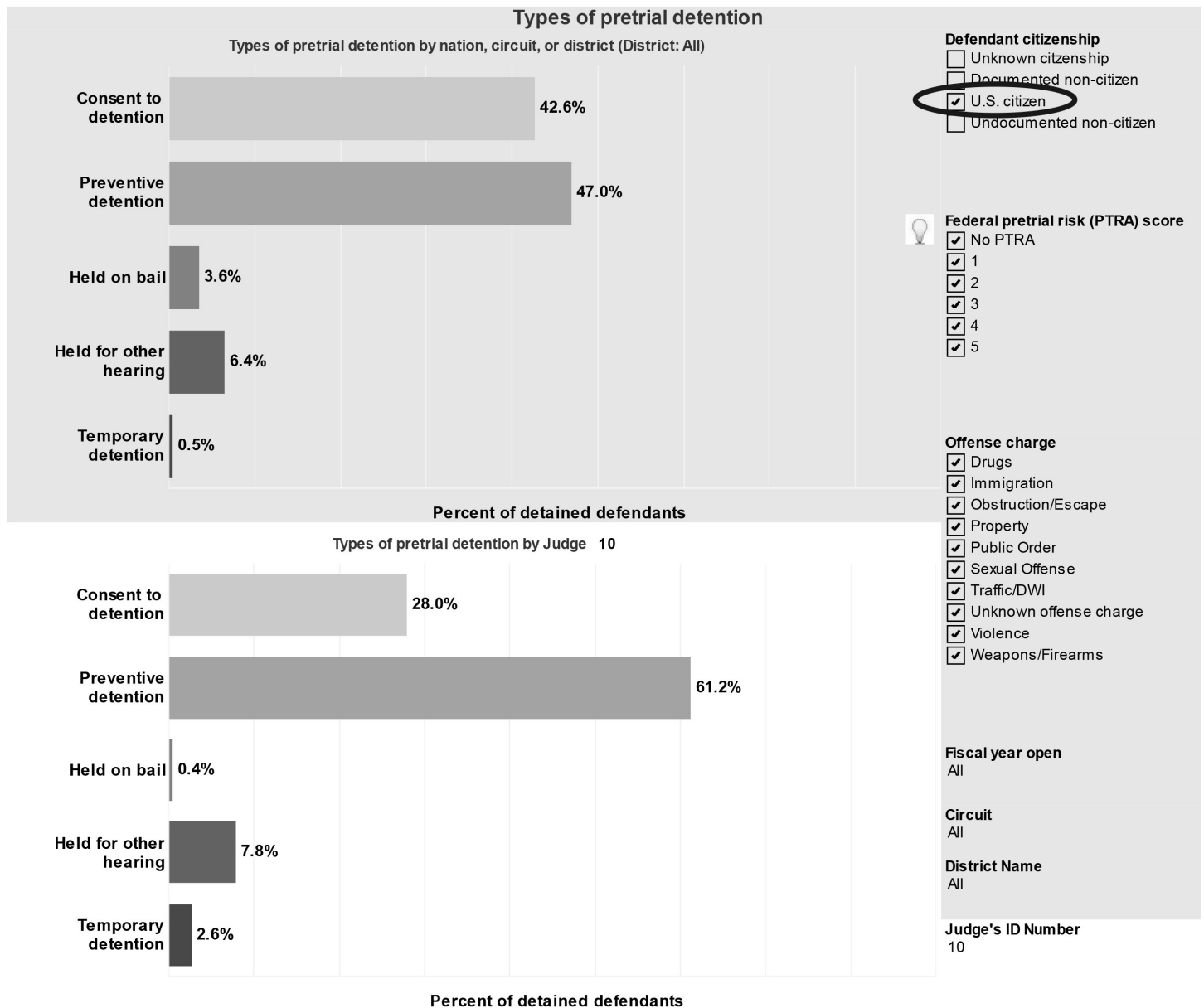
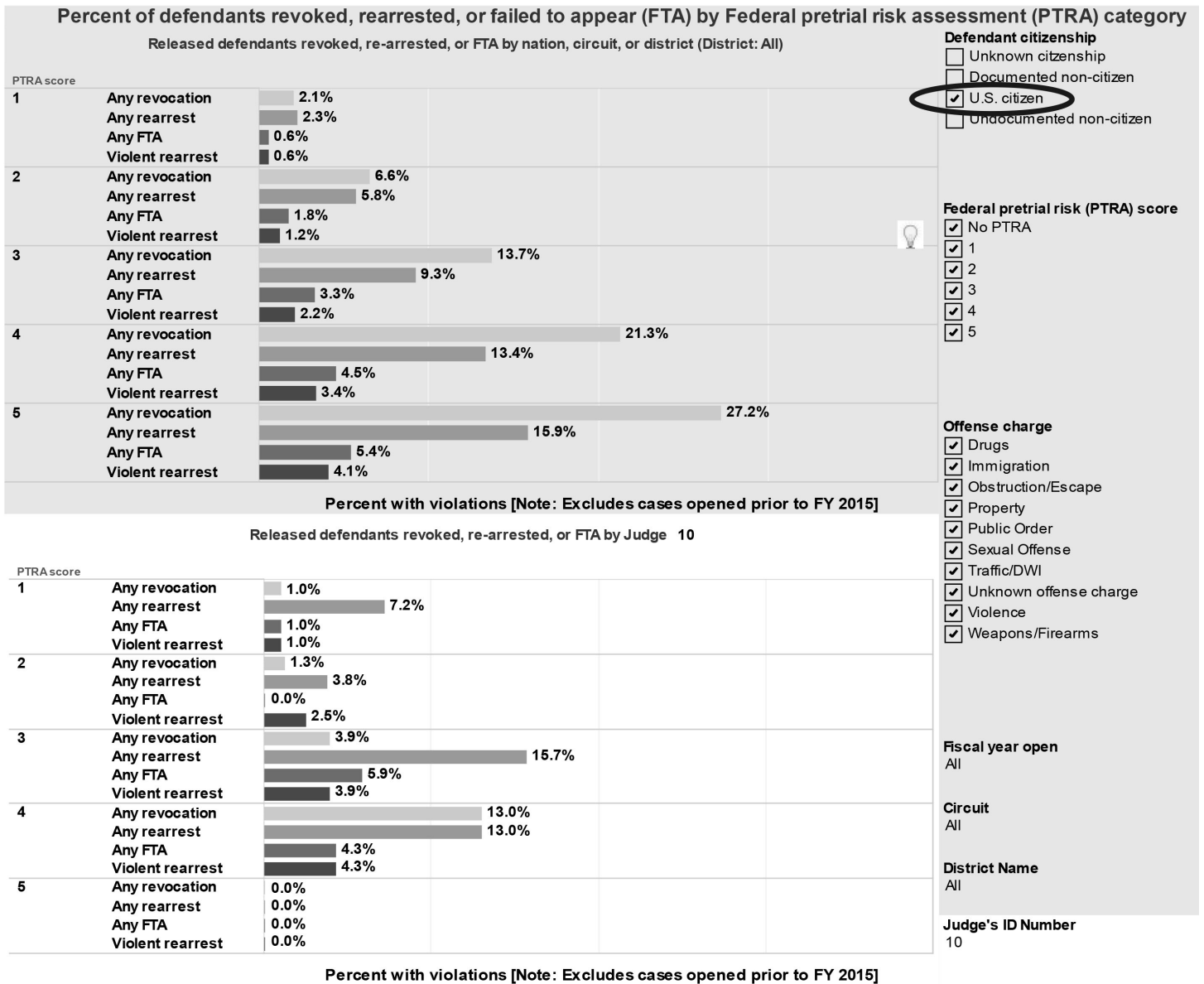


FIGURE 8



Gupta, A., Hansman, C., & Frenchman, E. (2016). The heavy costs of high bail: Evidence from judge randomization. *The Journal of Legal Studies*, 45(2), 471–505.

Heaton, P., Mayson, S. G., & Stevenson, M. (2017). The downstream consequences of misdemeanor pretrial detention. *SSRN*, 69(3), 711–794.

Oleson, J. C., VanNostrand, M., Lowenkamp, C. T., & Cadigan, T. P. (2014). Pretrial detention choices and federal sentencing. *Fed. Probation*, 78, 12.

Statutes

- 18 U.S.C. § 3142. Release or detention of a defendant pending trial.
- 18 U.S.C. § 3154(9). Functions and powers relating to pretrial services.

FIGURE 9

