

Pretrial Reform in Orange County, North Carolina

Supplemental Report: Methodological Appendix

January 2023

Jessica Smith, W.R. Kenan Jr. Distinguished Professor & Director, Criminal Justice Innovation Lab,
UNC School of Government

Jamie Vaske, Professor, Western Carolina University



SCHOOL OF GOVERNMENT
Criminal Justice Innovation Lab

Findings

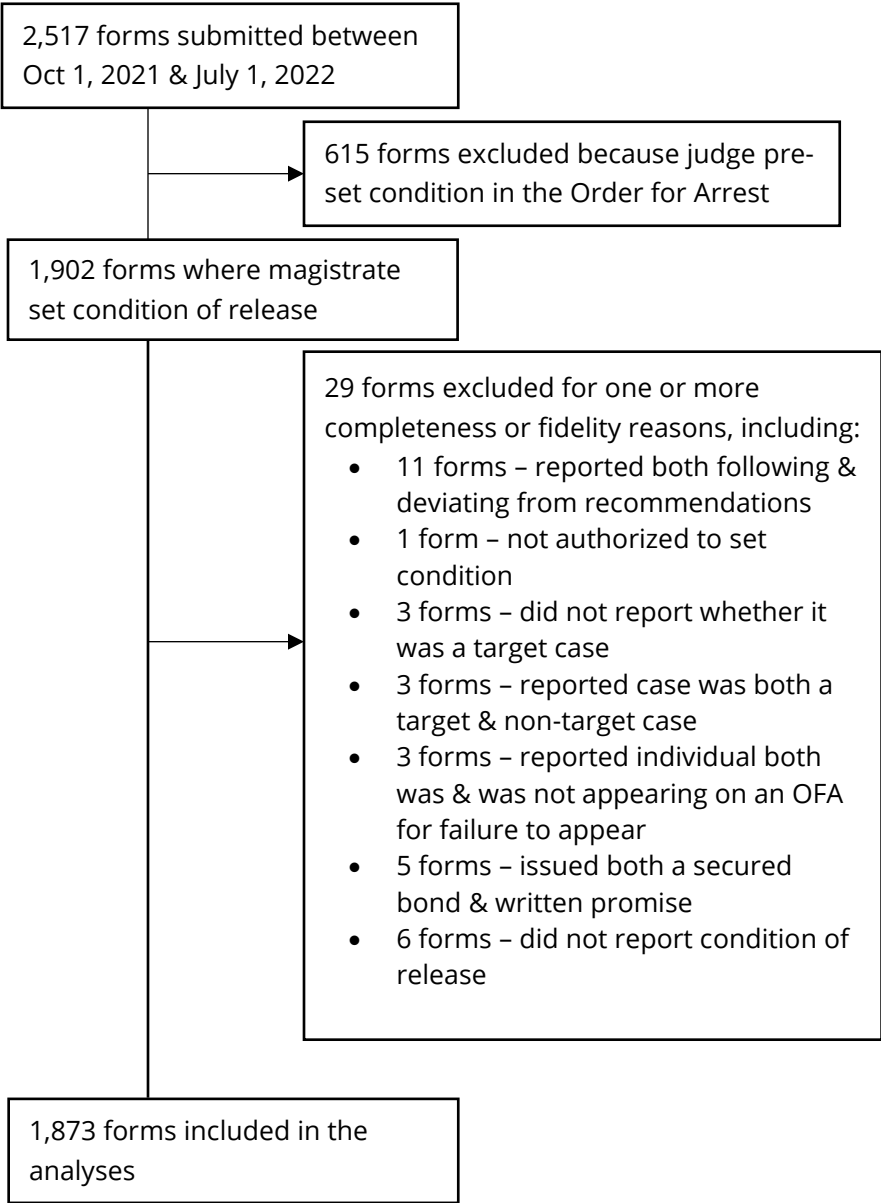
Magistrate Decision-Making – New Process

Data source.....(Page 1 of report)

Data Note: Sample Size of Magistrate Bail Explanation Forms

In the supplemental report, we present data from magistrate forms on the conditions of release imposed by magistrates for the eight-month period from October 1, 2021, to July 1, 2022. From the 2,517 forms that were submitted, we excluded 744 forms from analyses for the reasons listed in Figure S-1; the exclusions left 1,873 forms in the final data set.

Figure S-1. How We Derived the Analytic Sample from Submitted Magistrate Forms



Process Metrics

Following the Tool's Recommendations.....(Page of 2 report)

Conditions when Declining to Follow the Tool's Recommendations

In almost all cases where magistrates declined to follow the tool's recommendations (95.56% or 280 forms), they opted to impose a more restrictive condition (e.g., a secured bond or release to pretrial services instead of a written promise, custody release, or unsecured bond). They opted to impose a less restrictive condition (e.g., written promise, custody release, or unsecured bond instead of secured bond or release to pretrial services) in only a small number of such cases (4.44% or 13 forms).

Using the Tool Correctly.....(Page 2 of report)

Supplemental Analysis: Completeness & Fidelity Issues

To evaluate whether magistrates used the tool correctly, we examined a random sample of forms completed from October 1, 2021, to July 2, 2022. The random sample was completed on a bi-weekly basis. All forms submitted for two weeks were randomly assigned a number between 0 and 2,000. The forms then were sorted from smallest to largest number, and the first twenty-five forms were retained for review.

We assessed forms for completeness and fidelity issues. A completeness issue refers to failure to complete some portion of the form. A fidelity issue refers to a failure to follow the tool's decision-making process. We found that 3.22% of forms had fidelity issues, and 12.00% had completeness issues. Thus, magistrates completed the majority of forms without any completeness or fidelity issues. The most common completeness and fidelity issues are shown in Table S – 1.

Table S - 1. Common fidelity & completeness issues—Magistrate Bail Explanation Forms

Completeness issues	Fidelity issues
<ul style="list-style-type: none"> • Not checking a redundant box (63.76%) • Listing a bond amount that exceeded the recommended amount in the bond table but not providing reasons for doing so (27.53%) • Not including the case number, individual name, or charge description at the top of the form (1.44%) • Not noting the underlying offense for a failure to appear or probation violation (4.34%) • Not completing Step 1 (1.45%), Step 2 (1.45%), or Step 3 (0.72%) • Not reporting the final bail condition and/or amount (1.45%) • Not providing an explanation for setting a secured bond in Step 5 (4.35%) • Not completing the sidebar factors section when needed (1.45%) 	<ul style="list-style-type: none"> • Not following the decision-making process (72.97%) • Completing the “Explanation for secured bond in excess of maximum bond table” for a bond that did not exceed the maximum recommended amount (13.51%) • Checking both follow and deviate in Step 2, 3, 4, or 5 (10.81%) • Simultaneously indicating that the charge was and was not a non-impaired driving Class 1-3 misdemeanor in Step 2 (2.70%)

Note: The percentages reported above were calculated based upon 138 forms exhibiting a completeness issue and 37 forms displaying a fidelity issue.

Outcome Metrics

Conditions other than Secured Bonds.....(Page 2 of report)

Table S - 2: Conditions of release ordered in Magistrate Bail Explanation Forms, October 1, 2020, to July 1, 2022

	All Cases	Target cases	Non-target cases
Written promise, custody release or unsecured bond	63.85%	71.63%	62.07%
Written promise	62.47%	70.77%	60.56%
Disappearing bond	6.75%	15.79%	4.33%
Non-disappearing	93.25%	84.21%	95.67%
Custody release	0.43%	0.00%	0.52%
Unsecured bond	0.43%	0.57%	0.39%
Pretrial services	5.39%	1.15%	6.36%
Secured bond	30.81%	27.22%	31.63%
Median secured bond	\$3,000	\$500	\$5,000

Note: There were a total of 1,873 forms, with 349 forms completed for target cases and 1,524 completed for non-target cases.

Total percent of Written Promises, Custody Releases, and Unsecured Bonds

The percentages shown of cases that received a written promise, custody release, or unsecured bond (lines 2 through 6) may total less than the percentages shown in line 1 because Step 5 of the form allows magistrates to set a written promise, custody release, or unsecured bond without specifying the exact condition (lines 2 through 6 of the table rely on what the magistrate states when specifying the condition). Thus, the total number of written promises, custody releases, or unsecured bonds in line 1 (63.85%) may exceed the sum of the individual categories (62.47 + .43 + .43 = 63.32%).

Conditions of Release: By Magistrate.....(Page 4 of report)

Supplemental Analysis: Magistrate-Level Results

As discussed in the report, we found significant variation among individual magistrates in imposition of secured bonds and secured bond amounts. The tables and figures presented here provide more information on these findings. The figures below show the variation among individual magistrates in imposition of secured bonds for target cases.

Figure S – 2. Percent of target cases issued a secured bond by magistrate

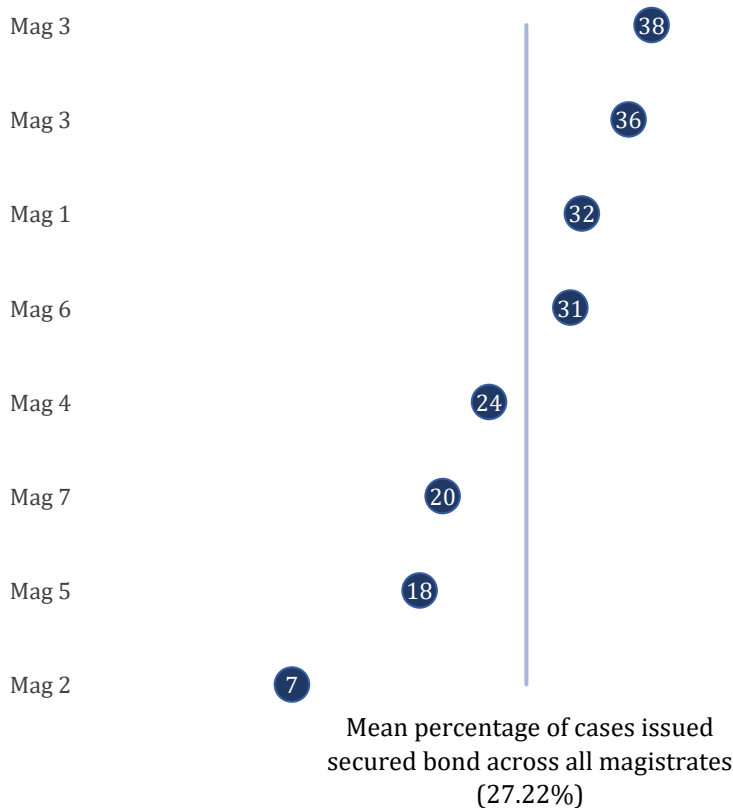


Table S – 3 below shows magistrate-level results from the Magistrate Bail Explanation Forms, including issuance of secured bonds, secured bond amounts, and number of deviations by offense category.

Table S – 3. Individual Magistrate Decision-Making

	Mag. 1	Mag. 2	Mag. 3	Mag. 4	Mag. 5	Mag. 6	Mag. 7	Mag. 8
% of forms that are								
... non-target cases	79.44%	82.25%	75.63%	85.44%	82.61%	82.34%	80.00%	82.12%
... target cases	20.56%	17.75%	24.37%	14.56%	17.39%	17.66%	20.00%	17.88%
	100%	100%	100%	100%	100%	100%	100%	100%
% of forms not following recommendations								
... non-target cases	19.61%	3.68%	33.89%	9.85%	6.02%	6.55%	11.25%	9.52%
... target cases	31.82%	7.32%	39.66%	24.14%	17.86%	32.20%	30.00%	37.50%
% of cases issued secured bonds for								
...non-target cases	32.55%	22.11%	36.11%	29.55%	27.07%	35.27%	46.25%	29.93%
...target cases	31.82%	7.32%	36.21%	24.44%	17.86%	30.51%	20.00%	37.50%
Median secured bond amounts								
...non-target cases	\$5,000	\$2,500	\$5,000	\$5,000	\$5,000	\$5,000	\$10,000	\$2,500
...target cases	\$500	\$500	\$1,500	\$500	\$500	\$750	\$500	\$370

Note: Magistrates completed 1,524 forms for non-target and 349 forms for target cases. The median number of forms across magistrates was 185 for non-target cases and 43 for target cases.

Conditions of Release: By Race.....(Page 4 of report)

Data Note: ACIS Data

Data for race were obtained by merging ACIS and jail data into our database of recorded magistrate bail form decisions. We were able to match 91.47% of the 1,524 forms for non-target cases in the analytical sample to ACIS and/or jail data. There were nineteen cases where ACIS and the jail reported different race data for a specific individual (e.g., ACIS reported that the individual was White while the jail data reported that the individual was Black). In cases where the two databases disagreed, we used the racial classification from ACIS. We restricted our analyses to non-target cases involving Black and White individuals (539 and 655, respectively).

Supplemental Analysis: Secured Bonds by Race

We examined the relationship between race and the use of secured bonds by estimating a logistic regression model in Stata 16.1 using clustered robust standard errors to account for the nesting of cases within magistrates. Without taking into account case-specific factors, the odds of receiving a secured bond for a non-target case were 1.65 times higher for Black individuals than White individuals. While this finding suggests that there is a racial difference in the use of secured bonds, there may be significant racial differences in case-specific factors that explain these differences in outcomes. For instance, the prevalence of failure to appear may be higher among Black individuals than White individuals, and as a result, Black individuals may be more likely to receive a secured bond.

We examine whether the prevalence of the case-specific factors vary by race in Table S – 4. Relative to cases involving White individuals, cases involving Black individuals were significantly more likely to have a history of failure to appear, a prior violent felony conviction, prior convictions, one or more charges that involved domestic violence or injury to a person, one or more charges involving drug trafficking or distribution, and the instant offense involved the use of a firearm or deadly weapon.

Table S – 4: Percent of non-target cases with case-specific legal factors by race

	Black	White	Difference
Class A-E felony	7.98	5.65	2.33
FTA in past 2 years	14.10	10.23	3.87*
Prior violent felony conviction	11.87	5.34	6.53***
Prior conviction	21.52	16.95	4.57*
Defendant was on pretrial release, supervised probation, parole, or post-release supervision	20.78	20.00	0.78
Involves domestic violence, a violent charge, or injury to a person	15.03	10.23	4.80*
Involves a firearm or deadly weapon	7.05	2.29	4.76***
Involves a sex offense	2.04	1.98	0.06
Involves a drug trafficking or distribution offense	10.20	6.87	3.33*
Charged with a DWI and has prior DWI conviction	4.45	5.34	-0.89
Defendant is impaired	3.53	5.19	-1.66

Note: The analyses above included data from 539 cases involving Black individuals and 655 cases involving White individuals.

Table S – 4 shows that the prevalence of case-specific factors was higher among cases involving Black individuals, and thus Black individuals may be more likely to receive a secured bond due to the presence of these factors. We examined whether racial differences in the case-specific legal factors explained the racial differences in the use of secured bonds for non-target cases. Table S – 5 shows that the odds of receiving a secured bond were 1.37 times higher for Black

individuals than White individuals, even after taking into account racial differences in the eleven case-specific factors.

The analyses in Table S – 5 are informative because they use information from the Magistrate Bail Explanation Forms where magistrates directly explain the specific case-specific factors driving their consideration of a secured bond. There are, however, at least two major limitations to these analyses. First, the large effect sizes for several case-specific factors (such as the odds ratio of 36.44 for Class A-E felony) suggests that there is near perfect prediction of secured bond use from that factor, and thus there is some instability in the statistical model. Statistical models are most “stable” when there is adequate variation in the variables and factors do not perfectly predict outcomes.

A second limitation is that information on case-specific factors is only available when the magistrate indicates the factor is present. For instance, the highest charge (e.g., assault with a deadly weapon with intent to kill) may be recorded as a Class A-E felony in ACIS, but “Charged offense is a Class A-E felony” is not checked as a case-specific factor on the form. This factor, while not checked on the form, may still be part of the decision-making process.

Table S – 5. Logistic regression of secured bonds on race and case-specific factors for non-target cases

	Odds ratio
Individual is Black	1.37**
Class A-E felony	36.44***
FTA in past 2 years	13.70***
Prior violent felony conviction	4.45***
Prior conviction	2.91***
Defendant was on pretrial release, supervised probation, parole, or post-release supervision	5.29***
Involves domestic violence, a violent charge, or injury to a person	9.79***
Involves a firearm or deadly weapon	4.27***
Involves a sex offense	4.07**
Involves a drug trafficking offense	3.35***
Charged with a DWI and has prior DWI conviction	1.61
Defendant is impaired	2.21

Note: Analyses data from 1,194 non-target forms. *: Significant at $p < .05$. **: Significant at $p < .01$. ***: Significant at $p < .001$. P-values represent the probability that the observed differences are the result of chance. For example, differences that have *** listed have less than a .1% chance of being observed due to chance. Results that do not have an asterisk are not statistically significant and any raw numerical differences may be due to chance alone.

We also estimated a linear probability model to examine how much each factor increased or decreased the likelihood of non-target cases receiving a secured bond. These results are presented in Table 1 of the report. Table S – 6 shows the results of those analyses for both

statistically significant and not statistically significant factors (at the standard 5% level of significance).

Table S – 6. Impact of factors predicting use of secured bonds from strongest to weakest

Percent increase or decrease in probability of receiving a secured bond	
Class A-E felony	48% increase
FTA in the past 2 years	38% increase
Involves domestic violence, violence, or injury to a person	32% increase
Committed when defendant was on pretrial release, supervised probation, parole, or post-release control	24% increase
Involves a sex offense	21% increase
Involves a drug trafficking offense	17% increase
Prior conviction demonstrating pattern of conduct	16% increase
Prior violent felony conviction	15% increase
Individual is Black	4% increase
Statistically non-significant factors	
Involves a firearm or deadly weapon	12% increase
Defendant is impaired	11% increase
Charged with a DWI and has prior DWI conviction	4% increase

Changes in Magistrate Decision-Making

Data Source.....(Page 6 of report)

Data Note: Conditions of Release Information from District Court Calendars

We investigated whether there were changes in the use of secured bonds between pre- and post-implementation periods by extracting bond information from the Orange County District Court calendars for January 1 to June 30 in 2019 and 2021. Analyses are limited to: (1) 19CR or 19CRS cases on the 2019 calendars and 21CR or 21CRS¹ cases on the 2021 calendars, and (2) the first occurrence of a file number on the calendar with a bond condition recorded. We collected information for 972 cases in 2019 and 788 cases in 2021. Preliminary analysis showed that most bond conditions first reported on the calendars corresponded to the bond conditions listed on the Conditions of Release (AOC-CR-200) form from the initial appearance. When we

¹ CR numbers are district court cases; CRS numbers are superior court cases.

compared the bond conditions reported on a sample of calendars to those on the corresponding AOC-CR-200 forms, we found an 88.8% concordance rate between the bond conditions. Although District Court calendars were the best data source available for comparing racial differences before and after implementation of reforms, calendar data is not a perfect tool for assessing magistrates' discretionary bail decisions. Because magistrates do not have discretion to set bail in cases that come before them on a judge-issued order for arrest with a pre-set secured bond, these cases are not included in the magistrate bail form data. They can be removed from the magistrate bail form data because the form itself flags them as such a case. However, there is no way to identify and remove these cases from the calendar data.

Bond information was retrieved from the following court calendars: criminal district, probation violation/felony, Tuesday criminal/traffic, domestic violence, and first appearances. Cases were not included if the only charges were civil revocation of driver's license, contempt by probationer, criminal contempt, extradition/fugitive, felony probation violation out of county, felony probation violation, governor's warrant, H/I felony probation violation, habitual felon, misdemeanor probation violation out of county, misdemeanor probation violation, motions, probation revocation appeal, show cause, violent habitual felon, or violation of court order. Bonds were considered "wrapped" across file numbers if a defendant had a secured bond on one file number and "\$1 SEC" listed as the bond on another case number on the calendar. In such situations, the bond was only recorded once in the data file.

By Race.....(Page 7 of report)

Data Note: Race Information

Information on an individual's race was retrieved from the North Carolina Automated Criminal/Infractions System (ACIS) and linked to the calendar data using the case number. Of the 1,760 cases included in the analyses, 95.51% (1,681) were matched to ACIS. Black and White individuals were the only races included in the analyses because they comprised 87.69% of the cases in the analysis. There were 683 cases involving Black individuals and 791 cases involving White individuals. Cases involving Hispanic individuals made up 8.21% of the sample (138 cases).

Impact of Policy Change Regarding the Non-Appearance Bench Card

Data Source(Page 7 of report)

Data Note: Information on Responses to Non-Appearance from District Court Calendars

We limited our analyses to court non-appearances with a 21CR case number for 2021 calendars and 21CR or 22CR case number for 2022 calendars. We confined our data collection to non-appearances on the criminal district, probation violation/felony, Tuesday criminal/traffic, domestic violence, and first appearance calendars. We did not include non-appearances on the Wednesday traffic only or recovery court calendars because of the special processes that apply to cases on those calendars. We examined responses to non-appearances that were recorded on calendars between January 1 and June 30 of 2021 and 2022. There were 305 non-appearances for target cases recorded during the first six months of 2021 and 381 during that period for 2022.

We used the defendant’s name as recorded on the calendars to identify whether it was the individual’s first non-appearance over an 18-month period on that or any other case. For 2021 non-appearances, we examined if the individual had failed to appear on any case during the 2019 calendar year as well as the first six months of 2021. For 2022 non-appearances, we examined if the individual had failed to appear on any case during the period January 1, 2021 to June 30, 2022. There were 222 non-appearances where it was the individual’s first non-appearance on a 21CR case in 2021 and 247 first-time non-appearances on 21CR and 22CR cases in 2022.

Table S – 7 below shows the full range of judicial responses to non-appearance and the frequency with which they were used from January to June 2021 and 2022. The Table shows these responses for all non-appearances in target cases as well as first-time non-appearances in target cases. The Bench Card was specifically designed to apply to first-time non-appearances in target cases.

Table S – 7. Percent and number of judicial responses to non-appearance in January to June 2021 and 2022, both for all non-appearances and first-time non-appearances in target cases.

	All Non-Appearances			First Time Non-Appearances		
	Jan – June 2021	Jan – June 2022	Percentage point difference	Jan – June 2021	Jan - June 2022	Percentage point difference
Excused & rescheduled	35.41% (305)	32.81% (125)	-2.60	35.59% (79)	42.11% (104)	6.52
OFA plus secured bond set	22.30% (68)	42.78% (163)	20.49***	14.41% (32)	28.34% (70)	13.93***
OFA plus condition other than secured bond set	2.62% (8)	0.00% (0)	-2.62***	0.90% (2)	0.00% (0)	-0.90
OFA plus magistrate discretion set	0.98% (3)	5.77% (22)	4.79***	0.90% (2)	3.24% (8)	2.34
20-day or called & failed noted	38.69% (118)	18.64% (71)	-20.05**	48.20% (107)	26.32% (65)	-21.88***
Total	305	381		222	247	

Table S – 8 shows how the total number of non-appearances being considered in each analysis shrinks as additional qualifiers are added on (e.g., first-time non-appearances in target cases). This explains why some of the values in the main report may seem small, despite missed appearances being relatively common overall.

Table S – 8. Court non-appearances in January to June 2021 and 2022: reduction in count as analytic focus narrows

	2021		2022	
	Number	Number as a percentage of previous row	Number	Number as a percentage of previous row
All non-appearances	393	---	564	---
Non-appearances in target cases	305	77.61%	381	67.55%
First-time non-appearances in target cases	222	72.79%	247	64.83%
First-time non-appearances in target cases issued an OFA + secured bond	32	14.41%	70	28.34%

Table S – 9 shows how judges permanently assigned to Orange County responded to first-time non-appearances in target cases in January to June 2021 and January to June 2022. Stakeholders requested that we conduct this analysis without visiting judges to determine if decisions made by the visiting group had a disparate impact on the overall findings. The results for permanent judges align with the results presented in Table S – 7 for all judges. This suggests that decisions made by the visiting judges are not driving the results. After the policy revision, the use of OFAs plus secured bonds increased among all judges (13.93 percentage points) and permanent judges (15.49 percentage points), while the use of 20-day or called and failed noted decreased among all judges (-21.88 percentage points) and permanent judges (-14.95 percentage points). In both data sets, these findings were statistically significant.

Table S – 9. Judicial responses in January to June 2021 and 2022 for first-time non-appearances in target cases by permanently assigned judges

	2021	2022	Percentage point difference
Excused & rescheduled	45.96% (74)	46.05% (99)	0.09
OFA plus secured bond set	8.70% (14)	24.19% (52)	15.49***
OFA plus condition other than secured bond set	1.24% (2)	0.00% (0)	-1.24
OFA plus magistrate discretion set	1.24% (2)	1.86% (4)	0.62
20-day or called & failed noted	42.86% (69)	27.91% (60)	-14.95**
Total	161	215	

The UNC School of Government is non-partisan, non-advocacy and responsive to the needs of public officials. We do not advocate for any political ideology or policy outcome or allow our personal beliefs or those of our audiences to influence our work.

This paper may not be copied or posted online, nor transmitted, in printed or electronic form, without the written permission of the School of Government, except as allowed by fair use under United States copyright law. For questions about use of the document and permission for copying, contact the School of Government.

© 2023 School of Government. The University of North Carolina at Chapel Hill