



February 1, 2014

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Rep. James L. Boles, Jr., Co-Chair
Rep. Pat B. Hurley, Co-Chair
Sen. Thom Goolsby, Co-Chair
Joint Legislative Oversight Committee on Justice and Public Safety
North Carolina General Assembly
Raleigh, North Carolina 27601

Dear Representatives and Senator:

Section 18B.7 of Session Law 2013-360 provides as follows:

MAGISTRATE DISTRIBUTION FORMULA

SECTION 18B.7. The Administrative Office of the Courts, in consultation with the National Center for State Courts, shall study its current formula for the distribution of magistrates across the State and consider revisions to that formula designed to take into account regional differences, travel considerations, and the potential for regionalizing magistrates. The Administrative Office of the Courts shall report its findings and recommendations to the Chairs of the Joint Legislative Oversight Committee on Justice and Public Safety by February 1, 2014.

Pursuant to the legislative mandate, the North Carolina Administrative Office of the Courts (NCAOC) contracted with the National Center for State Courts (NCSC) to conduct a study of magistrate distribution in North Carolina. NCSC produced the attached report, *A Review of Magistrate Staffing in North Carolina* (the NCSC Magistrate Report), pursuant to the contract.

The NCSC Report details the NCSC's methodology, its findings, and its recommendations. In the report, NCSC makes the following specific recommendations:

Recommendation 1. Conduct a comprehensive, empirically based workload assessment for magistrates.

Recommendation 2. Consider the possibility of regionalizing magistrates within district court districts.

Recommendation 3. Expand the use of two-way audio and video technology for remote appearances.

Recommendation 4. Establish clear parameters for magistrate scheduling at the state level.

NCAOC will take the following actions in response to Recommendations 1-3:

- NCAOC will take steps to update the current workload formula for magistrates, when funding becomes available;
- NCAOC will work with magistrates, district court judges, clerks and other stakeholders to evaluate the possibility of regionalizing magistrates within district court districts; and
- NCAOC will continue to expand the use of audio and video technology form remote appearances, and to work collaboratively with law enforcement toward that end.

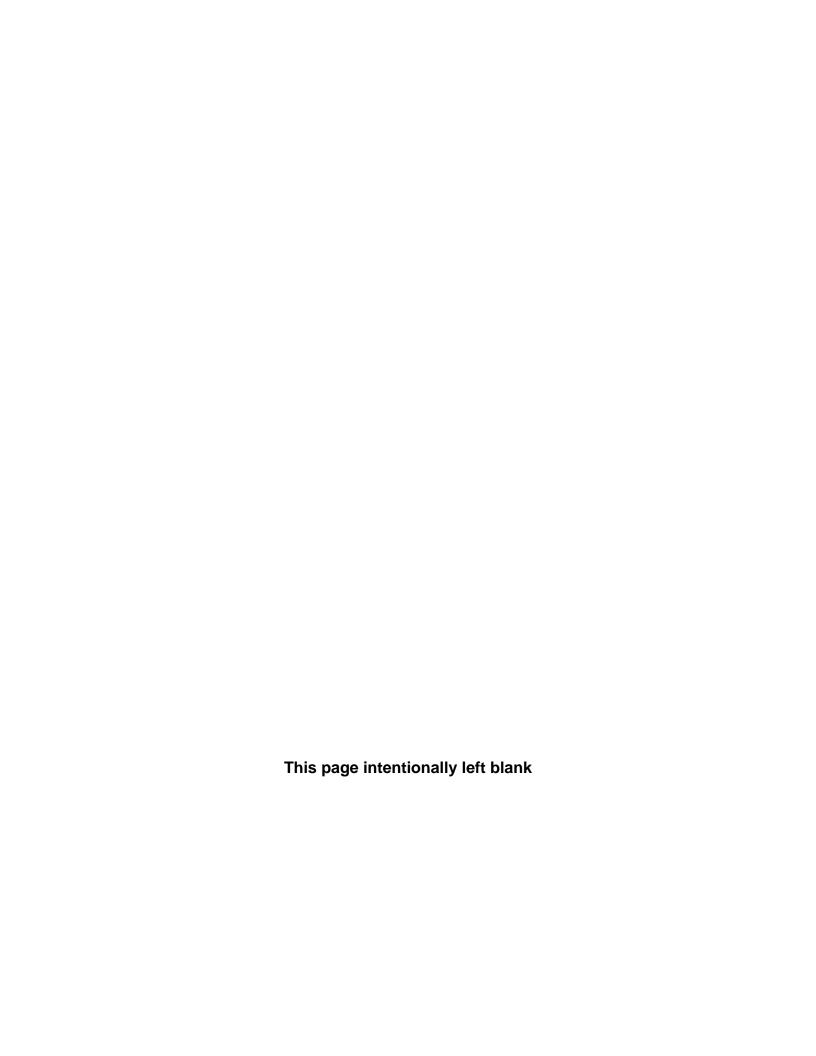
As to Recommendation 4, NCAOC expects to work collaboratively with local officials to establish best practices that local elected officials may consider using when making scheduling decisions in their districts. Because magistrates are local judicial officials, NCAOC believes that the local elected officials are in the best position to make local scheduling decisions for magistrates. However, NCAOC expects to provide guidance, information and technical assistance that will allow local officials to make decisions that maximize judicial efficiency and the most appropriate use of magistrate personnel.

If you have any questions, please do not hesitate to contact me.

Sincerely,

John W. Smith

Director



A Review of Magistrate Staffing in North Carolina

Final Report to the North Carolina Administrative Office of the Courts

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Research Division National Center for State Courts January 29, 2014



I. METHODOLOGY

In the Appropriations Act of 2013, the North Carolina General Assembly instructed that "[t]he Administrative Office of the Courts, in consultation with the National Center for State Courts, shall study its current formula for the distribution of magistrates across the State and consider revisions to that formula designed to take into account regional differences, travel considerations, and the potential for regionalizing magistrates. The Administrative Office of the Courts shall report its findings and recommendations to the Chairs of the Joint Legislative Oversight Committee on Justice and Public Safety by February 1, 2014." To assist the Administrative Office of the Courts (NCAOC) in fulfilling this directive, the National Center for State Courts (NCSC) conducted a systematic review of North Carolina's existing weighted caseload formula for magistrates. In conducting this analysis, NCSC relied upon the following sources of data:

- 1. Current magistrate caseload, weighted caseload, and staffing data provided by the NCAOC;
- 2. Semi-structured qualitative interviews with a magistrate, a clerk of superior court, a chief district court judge, NCAOC staff members, and an expert in the North Carolina judicial system from the University of North Carolina School of Government regarding the roles, responsibilities, and scheduling of magistrates in North Carolina;
- 3. Focus group interviews with experienced magistrates, clerks of superior court, and chief district court judges from small counties regarding current methods of scheduling magistrates, the usage of two-way video technology for conducting remote appearances, and the potential advantages and disadvantages of the sharing of magistrate resources across county lines²;
- 4. Data from the NCAWARE computerized warrant tracking system on the timing of criminal process issued by magistrates in each county during a six-week period in 2013;
- 5. A statewide survey of chief district court judges regarding the scheduling and specific responsibilities of magistrates in each county;³ and
- 6. A survey conducted by the NCAOC in September 2012 regarding magistrate schedules in small counties.⁴

This report addresses the following questions:

- 1. What are the roles and responsibilities of magistrates in North Carolina?
- 2. What implications do initial appearance procedures in criminal cases have for the work schedules of magistrates?

¹ Current Operations and Capital Improvements Act of 2013, Sess. L. 2013-360 § 18B.7.

² Small counties, particularly those currently allocated three or four magistrates, were selected to participate in the focus groups because these counties would be most affected by any regionalization of magistrates.

³ To reduce survey fatigue and maximize response rates, the NCAOC elected to add questions regarding magistrate scheduling to a survey it was conducting for other purposes regarding the specific authority delegated to magistrates by chief district court judges. The response rate for this survey was 100 percent.

⁴ The 2012 survey sample included 35 counties: 27 counties being reduced to three magistrates as of January 2013 and seven counties being reduced to four magistrates. The response rate for this survey was 59 percent.

- 3. Does the existing weighted caseload system accurately reflect the case-related and non-case-related workload of magistrates in North Carolina?
- 4. What is the current mechanism for setting magistrates' schedules?
- 5. What patterns exist in the timing of criminal processes issued by magistrates?

Finally, NCSC offers recommendations for improving efficiency and maintaining access to justice by regionalizing magistrates within the existing district court judicial districts.

II. ROLES AND RESPONSIBILITIES OF MAGISTRATES IN NORTH CAROLINA

The office of magistrate was established in the mid-1960s during the comprehensive restructuring of North Carolina's judicial system in response to the Bell Commission report of 1958. In the new uniform judicial system, magistrates were placed within the district court and assumed jurisdiction over matters previously handled by justices of the peace and mayor's courts. These matters include conducting initial appearances and pretrial release determinations in criminal cases, issuing arrest warrants and search warrants, accepting guilty pleas in minor misdemeanor and infraction cases, performing marriage ceremonies, hearing small claims cases, conducting civil commitment hearings, and certain other duties as authorized by the chief district court judge. Exhibit 1 provides a list of the responsibilities of magistrates. With the exception of performing marriages, clerks of superior court are also authorized to perform these functions. Magistrate salaries and benefits are funded by the state, but office space is provided by the counties.

Exhibit 1. Matters Typically Handled by Magistrates in North Carolina

Initial appearances and bond hearings in criminal cases

Initial 30-day revocation of driver's license in implied consent cases

Taking bonds

Accepting guilty pleas and waivers of trial in certain misdemeanor and infraction cases

Arrest warrants

Search warrants

Subpoenas

Civil warrants

Small claims

Evictions

Involuntary commitments and emergency custody orders

Ex parte protective orders (with judge's approval)

Juvenile custody hearings (with judge's approval)

Assigning allowance of living expenses to spouse from decedent's estate

Marriages

Oaths

Unlike superior court and district court judges, magistrates are appointed rather than elected. A magistrate must be a resident of the county in which he or she serves, and must possess either a four-year college degree or an associate's degree plus either four years' experience in law enforcement or another qualifying field or eight years' experience as a clerk of

⁵ N.C. ADMIN. OFFICE OF THE COURTS, THE NORTH CAROLINA JUDICIAL SYSTEM 2 (2008).

⁶ N.C. G.S. §§ 15A-511, -532, 7A-273(5), -273(7), .

⁷ N.C. G.S. §§ 15A-305, 7A-273(4).

⁸ N.C. G.S. §§ 7A-273(1)-(2), 273(8).

⁹ N.C. G.S. § 51-1.

¹⁰ N.C. G.S. § 7A-211. The chief district court judge determines the exact limit on the value of small claims cases heard by magistrates, up to \$10,000. As of January 1, 2014, the small claims ceiling for magistrates was \$10,000 in 68 counties and \$5,000 in the 32 remaining counties.

¹¹ N.C. G.S. §§ 122C-261, -281.

court¹². Magistrates are nominated by the clerk of superior court¹³ and appointed by the senior resident superior court judge,¹⁴ but are supervised by the chief district court judge.¹⁵ A magistrate serves a two-year term and is eligible for reappointment to subsequent four-year terms if nominated. If no appointment is made at the beginning of a new term, the incumbent magistrate may continue to serve as a "holdover" until the vacancy is filled. The chief district court judge may designate a chief magistrate, but is not required to do so.¹⁶ The chief magistrate receives no additional compensation.

Because magistrates are nominated, appointed, and supervised by three different officials, it is often said that they "serve three masters." Chief district court judges, clerks of superior court, and magistrates themselves report that this system makes it difficult to discipline magistrates for poor performance and minor to moderate misconduct. The only available remedies are suspension, removal from office, denial of renomination or reappointment, and removal from the schedule. Suspension and removal from office are only appropriate in cases of severe misconduct and are rarely used. Prevention of renomination or reappointment is most successful when there is cooperation among the senior resident superior court judge, clerk of superior court, and chief district court judge, which is not the case in all counties; in addition, this strategy leaves the poorly performing magistrate in office until his or her term expires, which may be as long as four years. In theory, a chief district court judge may also choose not to schedule a problem magistrate for work, but the magistrate will remain in office with pay, and the remaining magistrates will be forced to shoulder the burden of additional work.

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¹² Other qualifying fields include teaching, social services, arbitration or mediation, counseling, and the court system. N.C. G.S. § 7A-171.2(b).

¹³ N.C. G.S. § 7A-171(b). Each county in North Carolina has an elected clerk of superior court, even in superior court districts that span more than one county.

¹⁴ *Id*.

¹⁵ N.C. G.S. § 7A-146.

¹⁶ *Id*.

III. INITIAL APPEARANCE PROCEDURES

Initial appearances in criminal cases constitute a large share of the work of magistrates in North Carolina, and the procedures for initial appearances have a significant impact on magistrates' work schedules. Following an arrest without a warrant, the defendant is immediately brought before a magistrate in the county of arrest to determine whether there is probable cause to believe that a crime has been committed and that the defendant committed it. 17 If the magistrate finds probable cause, he or she issues a magistrate's order to initiate the criminal case, informs the defendant of the charges and his or her rights, and sets a court date for the trial (misdemeanors) or first appearance in district court (felonies). The magistrate's order is created in the NCAWARE computerized warrant tracking system. In some counties, the magistrate must enter all of the required data (e.g., defendant's name and other identifying information) into NCAWARE; in other counties, the arresting officer pre-enters much of this information, expediting the process for the magistrate. The magistrate then sets the conditions of pretrial release. 18 There is a strong preference for pretrial liberty, and most defendants who are not charged with a capital offense or subject to narrow categories of "holds" will be granted pretrial release at the initial appearance. 19 If a secured bond is required as a condition of release, the magistrate takes the bond. If the defendant is committed to jail because he or she is unable to make bond immediately, in some counties if a judicial official is not available the jailer may accept bond in certain types and/or amounts and release the defendant. ²⁰ Initial appearance procedures for an arrest with a warrant are identical to those for a warrantless arrest, except that the probable cause determination and magistrate's order are not required because the probable cause determination has already been made in issuing the warrant.

A. Timeline for Initial Appearance

Because initial appearances are extremely time-sensitive matters, they are a primary factor influencing the scheduling of magistrates. Any person arrested in North Carolina, with or without a warrant, is entitled to be taken before a magistrate "without unnecessary delay" for an initial appearance and bail hearing. Case law indicates that law enforcement may interview the defendant and conduct other investigative tasks prior to the initial appearance without causing unnecessary delay. Once law enforcement has completed its investigation and notified the magistrate of the need for an initial appearance, however, the prevailing expectation is that the magistrate will conduct the initial appearance immediately, even outside of regular office hours.

Although the expectation of an immediate initial appearance is rooted partly in the due process requirements of the United States and North Carolina constitutions and the general preference for liberty that underlies North Carolina's pretrial procedures, it has also been shaped by cultural and practical influences unique to North Carolina. In North Carolina's rural

¹⁷ N.C. G.S. § 15A-511.

¹⁸ N.C. G.S. § 15A-534.

¹⁹ A "hold" delays the pretrial release determination for a period of time due to public safety considerations. Impaired driver holds are discussed below. In domestic violence cases, only a judge can set conditions of release within the first 48 hours after arrest; the magistrate conducts the initial appearance and orders the defendant held until the next available session of district or superior court. N.C. G.S. § 15A-534.1.

²⁰ See Jessica Smith, Criminal Procedure for Magistrates, Administration of Justice Bulletin No. 2009/08 39 (Dec. 2009).

²¹N.C. G.S. §§ 15A-501(1), -511(a)(1).

²² See, e.g., State v. Wallace, 351 N.C. 481 (2000); State v. Littlejohn, 340 N.C. 750 (1995); State v. Caudill, 742 S.E.2d 268 (N.C. App. 2013), rev. denied 747 S.E.2d 578 (N.C. 2013).

jurisdictions, an arrestee awaiting an initial appearance is typically held in handcuffs in the arresting officer's patrol car or on a bench outside the magistrate's office, rather than in a holding cell or the county jail. As a result, the arresting officer is unable to return to patrol duty until the initial appearance has been held and the defendant has been either released or committed to jail. If the defendant is intoxicated or unruly, multiple officers may be required to supervise the defendant. In these counties, it is in the interest of public safety to complete initial appearances as quickly as possible so that officers can maximize their time on patrol. For the same reason, law enforcement may be resistant to transporting defendants long distances or across county lines for initial appearances. Holding defendants overnight prior to initial appearances, either at law enforcement offices or in the county jail, would also create additional expenditures for the counties, which bear the costs of providing jails in North Carolina. Given that North Carolina policy provides for an immediate initial appearance at any time of day, it may be necessary to explore innovative solutions such as the sharing of magistrate resources across county lines and the expanded use of two-way audio and video technology for remote appearances in order to efficiently and effectively utilize limited magistrate resources in the face of current and future budgetary constraints.

B. Remote Appearances

The North Carolina General Assembly has authorized the use of two-way audio and video transmission equipment for the following proceedings:

- Initial appearance in a noncapital case;²³
- Determination of pretrial release conditions;²⁴
- Testimony of a sworn law enforcement officer in support of a request for a search warrant;²⁵ and
- Testimony of a sworn law enforcement officer in support of a request for an arrest warrant. 26

During a remote appearance, the defendant and/or officer and the magistrate must be able to see and hear each other, and the defendant must be permitted to communicate privately with his or her attorney. The two-way audio and video transmission equipment may consist of a videophone or a computer equipped with specified software. The equipment must be approved by the Administrative Office of the Courts, and its use must be authorized by the senior resident superior court judge and the chief district court judge.²⁷ Remote appearances are also facilitated by statutes providing that a faxed copy of criminal process constitutes an original,²⁸ a printed copy of a document created in the NCAOC Magistrate System or in NCAWARE constitutes an original,²⁹ and electronic signatures are valid.³⁰

During a 2012 pilot of the Magistrate Video Project (MVP), the NCAOC funded videophone equipment for magistrates' offices and local law enforcement in seven counties.

²³ N.C. G.S. § 15A-511(a1)

²⁴ N.C. G.S. § 15A-532(b)

²⁵ N.C. G.S. § 15A-245(a)(3)

²⁶ N.C. G.S. § 15A-304(d)(3)

²⁷ N.C. G.S. §§ 15A-511(a1), -245(a)(3), -304(d)(3), -532(c).

²⁸ N.C. G.S. § 15A-101.1(9)(a).

²⁹ N.C. G.S. §§ 15A-101.1(5), -101.1(9)(b).

³⁰ N.C. G.S. § 15A-301.1(f).

Funding for two-way audio and video equipment in law enforcement offices is now a local responsibility. The NCAOC is in the process of replacing magistrates' desktop computers with laptop computers that meet NCAOC requirements for two-way audio and video transmission equipment. Laptops permit magistrates to conduct remote proceedings from their homes as well as from the office, but laptop computers must typically be shared by more than one magistrate within an office and may not always be available for magistrates to take home while on call. The MVP technology appears to be used most frequently for communication between a magistrate's office and a law enforcement office, rather than between a magistrate's home and another location.

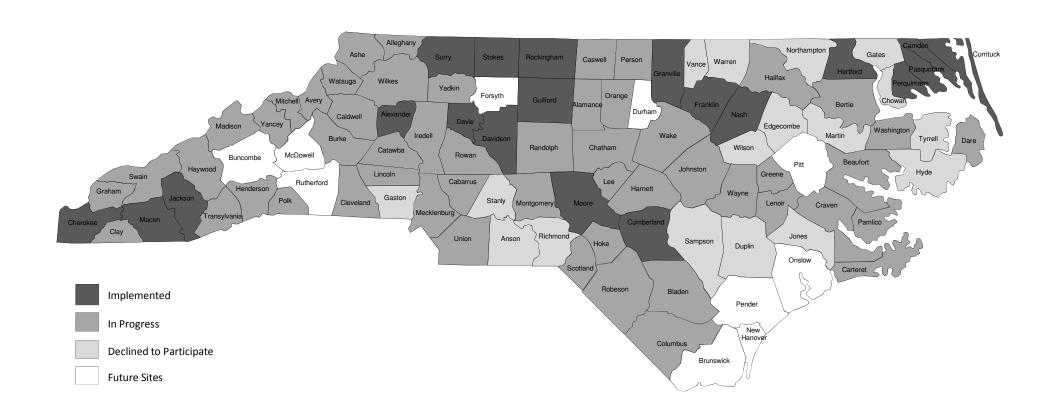
As of October 2013, 20 counties were using MVP technology, 53 counties had requested or received approval to participate in MVP, 10 counties had not yet decided whether to participate, and 17 counties had declined to participate. Exhibit 2 shows the MVP status of each county as of October 2013. Magistrates, staff, and judges interviewed for this study report that law enforcement's reaction to MVP has been mixed. Officers in some counties, especially officers from agencies whose headquarters are not located in the same building as the magistrate's office, have embraced MVP because it reduces the amount of time they must spend transporting defendants for initial appearances and traveling to the magistrate's office to request warrants. In other counties, law enforcement has been resistant to adopting MVP for a variety of reasons, including the cost of the equipment (currently around \$1,300 per three-year videophone contract), concerns about defendants damaging the equipment or using it as a weapon, and discomfort with the technology. A few departments have also had difficulty working with their internet service providers to establish the secure connections required by MVP.

Magistrates and judges cite bond as an issue that can complicate the remote handling of initial appearances. Bond must be accepted in person at the site where the defendant is held. Local practices are quite variable as to whether or not jailers take bonds, and in what types and amounts. For property bonds requiring a deed of trust that have not previously been approved by a clerk of superior court, a magistrate must accept the bond in person.

Remote appearances are not currently authorized for several types of proceedings that frequently occur outside of regular business hours. These include emergency custody orders in mental health cases and ex parte requests for domestic violence protective orders. Citizen requests for arrest warrants must also be heard in person, although some counties have established policies requiring law enforcement review of such requests before they are presented to a magistrate, or limiting citizen requests for arrest warrants to regular business hours. Finally, remote appearances are not authorized for initial appearances in capital cases.

³¹ Two-way audio and video communication also requires a broadband internet connection. Although all magistrates' offices and law enforcement offices should have broadband internet connections, residential broadband service is not available in some rural areas of North Carolina. In these areas, magistrates cannot conduct remote appearances from their homes even if laptops are provided.

Exhibit 2. Magistrate Video Project Participation by County as of October 2013



C. Special Procedures for Implied Consent Offenses

North Carolina statute imposes additional requirements for initial appearances in cases involving the consumption of alcohol prior to operating a motor vehicle, also known as implied consent offenses. These requirements create additional work for magistrates and pose logistical challenges to the remote handling of these cases.

If a defendant charged with an implied consent offense is held in custody following the initial appearance, the magistrate must provide the defendant with written notification of the established procedure to have persons observe the defendant's condition at the jail and/or administer an additional chemical analysis, and must obtain a list of the persons whom the defendant wishes to contact and their telephone numbers.³² The purpose of these requirements is to avoid dismissal of the charges on the grounds that the defendant was not advised of the right to independent observation and testing or was not released to a responsible adult.³³ These requirements result in an exchange of additional paperwork between the magistrate and the defendant that can be cumbersome to handle via fax. The general consensus among magistrates interviewed was that it is faster and simpler to drive to the defendant's location and handle an implied consent case in person than to attempt to conduct the initial appearance remotely.

When a magistrate finds probable cause to charge a defendant with an implied consent offense involving impaired driving (impaired driving; impaired driving in a commercial vehicle; habitual impaired driving; death, serious injury, murder, or involuntary manslaughter based on impaired driving), the magistrate is then required to consider whether the impairment of the defendant's physical or mental faculties presents a danger that the defendant, if released, would cause physical injury to himself or herself or others or damage to property. If the magistrate finds clear and convincing evidence of such impairment, the defendant is detained until the impairment no longer presents a danger or a sober, responsible adult assumes responsibility for the defendant.³⁴ It is the responsibility of the magistrate to determine when the defendant is no longer impaired. In no case may an impaired driving hold continue longer than 24 hours. Although the language of the statute does not explicitly require the magistrate to observe the defendant's condition in person, many magistrates believe that it is impermissible to place a defendant on an impaired driving hold without firsthand observation of intoxication, further discouraging the remote handling of these cases. The statute, however, does permit a magistrate to order periodic testing to determine the defendant's alcohol concentration during the course of an impaired driving hold, strongly suggesting that the magistrate may base an impaired driving hold on evidence other than personal observation. In addition, personal observation is just one of many factors that the magistrate may consider in making the probable cause determination on the underlying impaired driving charge, including alcohol screening tests, chemical analyses, and testimony from any law enforcement officer concerning impairment and the circumstances of the arrest.³⁵ To facilitate the remote handling of implied consent cases and impaired driving holds, the NCAOC may wish to prepare a memorandum of law, request an Administration of Justice Bulletin from the University of North Carolina School of Government, or obtain an advisory opinion from the Attorney General of North Carolina as to the legality of basing an impaired driving hold and/or the continuation of an impaired driving hold on evidence other than the

³² N.C. G.S. § 20-38.2(a)(4).

³³ See State v. Knoll, 322 N.C. 535 (1988).

³⁴ N.C. G.S. §§ 15A-534.2, 20-38.4(a)(3).

³⁵ N.C. G.S. § 20-38.4(a)(2).

magistrate's personal observation, such as the testimony of a law enforcement officer or jailer or the results of an alcohol screening test or chemical analysis. If such an analysis indicates that personal observation is not required, magistrates should become more willing to consider impaired driving holds via two-way video.

Finally, statute provides that a magistrate may hold the initial appearance in an implied consent case anywhere in the county, and that the magistrate "shall, to the extent practicable, be available at locations other than the courthouse when it will expedite the initial appearance." This provision is intended to allow magistrates to hold initial appearances at the site of an alcohol checkpoint or mobile testing unit ("BATMobile").

³⁶ N.C. G.S. § 20-38(a)(1).

IV. CURRENT WEIGHTED CASELOAD MODEL

North Carolina currently uses a weighted caseload system to analyze the need for magistrates in each county based upon total magistrate workload. The weighted caseload formula consists of three critical elements:

- 1. Case filings, or the number of new cases of each type opened each year;
- 2. Case weights, which represent the average amount of magistrate time required to handle cases of each type over the life of the case; and
- 3. The magistrate year value, or the amount of time each magistrate has available for case-related work in one year. The year value is made up of two components: the magistrate year, or the number of days available for case-related work each year, and the day value, which represents the amount of time devoted to case-related work during each workday. Multiplying the magistrate year by the day value yields the magistrate year value.

Total annual workload is calculated by multiplying the annual filings for each case type by the corresponding case weight, then summing the workload across all case types. The workload is then divided by the year value to determine the total number of magistrates needed to handle the workload. By weighting case filings to account for the differences in the amount of work associated with each case type, the weighted caseload formula provides an accurate assessment of magistrate need that accommodates variations in caseload composition, both over time and across counties.

The weighted caseload formula for magistrates was established in 2007.³⁷ The case weights and year value were developed by a committee of magistrates on the basis of expert opinion, and were not grounded in empirical data regarding the actual amount of time magistrates spend on case-related and non-case-related tasks. Exhibit 3 shows the calculation of the magistrate year; Exhibit 4 details the breakdown of the day into case-related and non-case-related work. Multiplying the magistrate year (in days) by the case-related day value (converted to minutes) yields a magistrate year value of 40,542 minutes.

Exhibit 3. Magistrate Year (days)

Total days per year		365
Weekends	-	104
Vacation*	-	15
Sick leave*	-	10
Continuing education	-	1
Annual conference	-	2
Magistrate year		233

^{*}As officials appointed to terms of office, magistrates do not formally accrue vacation and sick leave. The workload model includes a presumed allowance for vacation and sick leave, subject to schedule approval by the chief district court judge or designee.

³⁷ In 2010, the NCAOC converted the case weight for criminal non-motor vehicle matters to accommodate a shift from a charge-based method of counting filings to a defendant-based method. North Carolina now uses defendant-based filings counts rather than charge-based counts in all of its weighted caseload formulas, as this method more accurately reflects the workload associated with processing cases and eliminates the influence of variations among jurisdictions in prosecutorial charging practices.

Exhibit 4. Magistrate Day Value (hours)

Standard work day		9.0
Lunch and breaks	-	1.0
Personnel and courtroom administrative matters	-	1.0
Chambers administrative matters	-	0.5
Public outreach	-	1.0
Contact in hearings, no filing	-	2.5
Travel	-	0.1
Day value (case-related work)		2.9

The magistrate day value of 2.9 hours for case-related work is quite low in comparison to the day values for other weighted caseload formulas currently used by the NCAOC: 6.49 hours for clerks of court, 6.4 hours for district court judges, and 5.0 hours for superior court judges. Much of the disparity results from the fact that each magistrate is allotted 2.5 hours per day for "contact in hearings, no filing." This activity consists of interaction with the public and law enforcement that does not result in the filing of a case—for instance, a discussion with a citizen who wishes to take out a warrant but changes his mind after meeting with the magistrate. This activity would be more properly characterized as case-related work, as it involves individual matters and its volume is related more closely to the number of cases that are eventually filed with the court than to the number of magistrates who are assigned to the county. Classifying this activity as case-related work would be consistent with the treatment of pre-filing screening as case-related work in North Carolina's weighted caseload formula for prosecutors, and the classification of search warrants and arrest warrants as case-related activity in the weighted caseload formulas for judicial officers in numerous states. Reclassifying pre-filing activity as case-related work would increase the case weights for the affected case types and decrease the day value, resulting in a more precise estimate of magistrate need. Furthermore, it is possible that the non-case-related portion of the day includes waiting time that could be reduced or eliminated by the sharing of magistrates within districts, which might increase case-related workload for magistrates affected by regionalization to a level more consistent with the case-related workload of other types of judicial officers in North Carolina. Finally, the day value allows only 0.1 hour, or six minutes per day, for travel. The amount of time required for travel is likely to be higher in small counties where magistrates serve in an on-call capacity and may be called into the office multiple times during a single shift, suggesting that different day values may be appropriate for different types of counties. Regionalization might also impact travel time for magistrates in affected counties.

Exhibit 5 shows the case weights for matters handled by magistrates. Cases are divided into three categories: criminal non-motor vehicle, small claims, and other filings. This model may not adequately distinguish among the various types of cases handled by magistrates. For example, initial appearances in impaired driving cases, in which the magistrate must provide additional notifications and make a determination regarding an impaired driving hold, are likely to require more time than initial appearances in other types of criminal cases. A model in which the same case weight is used for all criminal matters will therefore tend to underestimate the need for magistrates in counties with a higher than average proportion of impaired driving cases, such as counties containing colleges, interstate highways, or tourist attractions. The "other filings" category also encompasses a wide range of dissimilar case types, including domestic

violence protective orders and guilty pleas/waivers of trial in minor criminal and infractions cases.

Exhibit 5. Magistrate Case Weights (minutes)

Criminal non-motor vehicle	38.1
Small claims	30.5
Other filings	17.0

To calculate the total case-related workload for magistrates in each county, the filings for each case type are multiplied by the appropriate case weight, and the workload is summed across all case types. To determine the number of full-time equivalent (FTE) magistrates needed to handle the workload, the total workload is divided by the magistrate year value. To reflect the efficiencies associated with centralized case processing in large counties, the NCAOC then applies an "efficiency factor" of 19.4 percent in counties with 15 or more allocated FTE magistrate positions. 38 In addition, NCAOC business rules require a minimum of three FTE magistrates per county to ensure 24-hour coverage. Exhibit 6 compares current magistrate need, before and after the application of the efficiency factor and the 3-magistrate minimum, with the number of allocated magistrate positions for each county. Even after application of the efficiency factor, the estimated need for magistrates in the several largest counties far exceeds the number of authorized positions. For example, Mecklenburg County currently has about half as many authorized magistrate positions as the weighted caseload formula would suggest it needs, and the number of authorized positions in Wake County is just under 60 percent of its estimated need. The fact that magistrates in these counties appear to be functioning at least reasonably well despite these estimated shortages suggests that the weighted caseload formula does not provide an accurate estimate of magistrate need in large counties.

The low day value for case-related work, the classification of pre-filing activity as non-case-related work, the lack of distinction among case types, the poor fit of the model to current staffing levels (especially in large districts), and the lack of an empirical foundation all indicate that a comprehensive update of the weighted caseload formula for magistrates is warranted. The new weighted caseload formula should be developed through a comprehensive workload assessment process grounded in an empirical time study that records the amount of time magistrates across the state currently spend on case-related and non-case-related work. The workload assessment should include an analysis of the variation in case processing time and non-case-related work between large counties and small counties, as well as an examination of the amount of magistrate work conducted outside of regular business hours. The weighted caseload formula should also distinguish among an expanded range of case type categories. The development of an empirically based weighted caseload model that accurately describes the workload of magistrates in each county is an essential prerequisite to any restructuring of the magistrate system in North Carolina, including regionalization.

 $^{^{38}}$ The efficiency factor reduces the estimate of magistrate need in each affected county by 19.4 percent.

Exhibit 6. Magistrate Need and Current Allocation (FTE)

	Full-Time I	Equivalent (FTE) N	/lagistrates		Full-Time Equivalent (FTE) Magistrates			
County	Weighted	Need With Business Rules	Authorized as of 7/1/2013	County	Weighted Caseload Need	Need With Business Rules	Authorized as of 7/1/2013	
Alamance	10.9	10.9	12	Johnston	8.8	8.8	10	
Alexander	2.0	3.0	4	Jones	0.8	3.0	3	
Alleghany	0.5	3.0	3	Lee	4.2	4.2	5	
Anson	2.2	3.0	4	Lee	5.5	5.5	7	
Ashe	1.2	3.0	3	Lincoln	4.1	4.1	5	
	0.9	3.0		Macon		3.0	4	
Avery Beaufort	3.6	3.6	3 4	Madison	1.7 1.1	3.0	3	
Bertie	3.6 1.4	3.0	3	Martin	1.1	3.0	3 4	
Bladen		3.0	4	McDowell	2.6	3.0	4	
	2.5							
Brunswick	7.6	7.6	8	Mecklenburg	76.5	62.4	33.5	
Buncombe	19.1	15.6	15	Mitchell	0.9	3.0	3	
Burke	4.8	4.8	5.6	Montgomery	2.1	3.0	4	
Cabarrus	11.7	11.7	10	Moore	4.3	4.3	5	
Caldwell	4.9	4.9	6	Nash	10.9	10.9	9	
Camden	0.4	3.0	3	New Hanover	18.9	18.9	13	
Carteret	6.0	6.0	6	Northampton	1.3	3.0	3	
Caswell	1.0	3.0	3	Onslow	10.4	10.4	11	
Catawba	9.5	9.5	10	Orange	6.1	6.1	7	
Chatham	2.8	3.0	4	Pamlico	0.7	3.0	3	
Cherokee	1.6	3.0	4	Pasquotank	3.3	3.3	4	
Chowan	0.9	3.0	3	Pender	3.1	3.1	4	
Clay	0.5	3.0	3	Perquimans	0.6	3.0	3	
Cleveland	6.8	6.8	7	Person	2.6	3.0	4	
Columbus	4.0	4.0	5	Pitt	16.7	16.7	13	
Craven	6.4	6.4	8	Polk	1.2	3.0	3	
Cumberland	27.1	22.1	20	Randolph	8.6	8.6	9	
Currituck	1.8	3.0	4	Richmond	4.4	4.4	5	
Dare	3.1	3.1	4	Robeson	13.3	10.8	12	
Davidson	10.1	10.1	8	Rockingham	5.9	5.9	7	
Davie	1.8	3.0	4	Rowan	8.8	8.8	9	
Duplin	3.4	3.4	4	Rutherford	4.5	4.5	6	
Durham	26.0	21.2	18	Sampson	4.1	4.1	5	
Edgecombe	7.5	7.5	7	Scotland	4.1	4.1	5	
Fors yth	31.7	25.9	19	Stanly	3.8	3.8	5	
Franklin	3.5	3.5	4	Stokes	2.3	3.0	4	
Gaston	18.7	15.2	17	Surry	4.8	4.8	6	
Gates	0.6	3.0	3	Swain	1.1	3.0	3	
Graham	0.5	3.0	3	Transylvania	1.9	3.0	4	
Granville	3.5	3.5	5	Tyrrell	0.3	3.0	3	
Greene	1.2	3.0	3	Union	8.1	8.1	7	
Guilford	51.4	42.0	31	Vance	5.3	5.3	6	
Halifax	5.5	5.5	7	Wake	55.7	45.5	27	
Harnett	6.8	6.8	7	Warren	1.2	3.0	3	
Haywood	4.1	4.1	5	Washington	0.9	3.0	3	
Henderson	5.4	5.4	7	Watauga	3.3	3.3	4	
Hertford	2.2	3.0	4	Wayne	8.6	8.6	9	
Hoke	2.5	3.0	4	Wilkes	4.4	4.4	6	
Hyde	0.4	3.0	3.5	Wilson	8.8	8.8	7	
Iredell	10.3	10.3	9	Yadkin	1.8	3.0	4	
Jackson	2.3	3.0	4	Yancey	0.8	3.0	3	
				Total	701.7	709.7	674.6	

Notes: Magistrate need based on average annual filings for fiscal years 2010/2011, 2011/2012, and 2012/2013. Business rules include a 19.4 percent reduction in magistrate need for counties with 15 or more allocated magistrate positions and a minimum need of 3 magistrates per county.

V. SCHEDULING OF MAGISTRATES

The scheduling of magistrates in North Carolina is purely a local matter. By statute, the chief district court judge is responsible for supervising and scheduling magistrates, but may delegate the authority to set magistrates' schedules and to assign matters to magistrates to the another district court judge, the clerk of superior court, or the chief magistrate. In practice, many chief district court judges allow magistrates to work out their own schedules. These schedules are typically either passed down over time from previous magistrates or arranged to suit the preferences of the magistrates currently serving. The NCAOC does not currently provide guidance in setting magistrates' schedules.

Magistrates' offices may be located in the jail facility, at the courthouse, or at law enforcement offices. In some counties, there are several offices that are staffed at various hours. For instance, a magistrate might be stationed in the courthouse during business hours and at the jail after business hours. Magistrates hear most matters in their offices, although counties often provide courtrooms for small claims proceedings.

In every county, at least one magistrate must be in the office or on call at all times to conduct initial appearances, approve search warrants and arrest warrants, hear ex parte petitions for domestic violence protective orders (where authorized by the chief district court judge), and conduct emergency custody hearings in mental health cases. In most mid-sized and large counties, there are enough magistrates to provide an in-person presence in at least one magistrate's office 24 hours per day, 7 days per week. In smaller counties, however, there is not typically a magistrate in the office around the clock. Many counties staff a magistrate's office during business hours and keep a magistrate on call after hours, although magistrates in at least one county maintains no regular office hours and operate entirely on an on-call basis. Rotation schedules for in-office and on-call work vary widely. In many counties, magistrates are on duty for several days at a time, then take a week or more off. For example, each of the three magistrates in at least one county is on duty for one week, then off duty for two weeks. During the duty week, the magistrate works in the office during regular business hours and is on call at night and on the weekends. Another common pattern in three-magistrate counties is 48 hours on duty, 96 hours off duty, with the on-duty magistrate working in the office during regular business hours and remaining on call after hours and on weekends. In counties with four magistrates, 12hour and 24-hour shifts are typical. For example, magistrates in one county work 12-hour shifts two days in a row, then are off duty for 48 hours. In another county, magistrates are on duty for 12 hours, off duty for 12 hours, on duty for 24 hours, off duty for 12 hours, then on duty for 12 hours before an extended period off duty.

Magistrates in small counties report that the volume of on-call work varies from night to night, and they are sometimes called out several times in a single night to handle initial appearances, protective orders, arrest warrants, and other matters. Even if the magistrate has a laptop and is able to conduct some proceedings from home, fatigue resulting from multiple awakenings during the night can become an issue. Compounding this problem is the fact that many magistrates are continuously on duty for two or more days at a time. Magistrates observe that fatigue erodes the quality of their decision-making and their patience in dealing with defendants and litigants, and causes clerical errors such as incorrect dates on criminal process forms. Some magistrates report becoming so fatigued during long shifts that they felt unsafe

³⁹ N.C. G.S. § 7A-146(4).

driving themselves home and had to call upon law enforcement or family members for transportation. In some counties, clerks of superior court will cover for tired magistrates during business hours, but not all clerks are trained or willing to perform the magistrate's judicial functions. On the other hand, magistrates enjoy the extended periods of time off that some of their schedules provide, often using the time to pursue a second job.

Research involving shift workers such as nurses, physicians, and police officers confirms that long shifts and fatigue can have a negative impact on job performance. Shifts of longer than eight hours are associated with "decreased alertness and increased fatigue, lower cognitive function, declines in vigilance on task measures, [and] increased injuries." These effects are most pronounced for very long shifts and for 12-hour shifts combined with more than 40 hours of work per week—typical schedules for magistrates in some North Carolina counties. 40 Various professional organizations and government agencies have developed guidelines for on-call and shift work specifying maximum shift length, minimum rest periods between shifts, and maximum working hours per week. For example, the Association of periOperative Registered Nurses (AORN) Position Statement on Safe Work/On-Call Practices specifies that "[p]erioperative registered nurses should not be required to work in direct patient care for more than 12 consecutive hours in a 24-hour period and not more than 60 hours in a seven-day period." The AORN guidelines also call for a minimum of eight hours' uninterrupted sleep between work periods, along with "a break from continuous professional responsibilities, and time to perform individual activities of daily living" during off-duty times. 41 Similarly, the Washington State Nurses Association recommends a maximum shift length of 12.5 hours for all nurses. 42 The Accreditation Council for Graduate Medical Education duty hour standards for medical residents are more permissive, allowing an average of 80 hours' work per week and requiring a maximum shift length of 16 to 24 hours, an eight-hour rest break between shifts, and one day off per week. 43 For drivers of passenger-carrying vehicles, the Federal Motor Carrier Safety Administration limits driving time to 10 consecutive hours and total on-duty time to 15 hours, preceded by an 8-hour rest period. Drivers of property-carrying vehicles are limited to 11 hours of driving time during a 14-hour on-duty period, preceded by a 10-hour rest period.⁴⁴ Magistrate work schedules in many small North Carolina counties would violate most of these standards whenever a magistrate is called out multiple times per night.

Because magistrates are appointed officials who serve limited terms, they are not eligible for regular sick leave or vacation time. In counties with several magistrates, it is usually possible to maintain adequate coverage while one magistrate is away from the office, but taking time off outside of regularly scheduled off-duty periods is very difficult in counties with three or four magistrates. Extended leave due to disability, maternity, or military service poses a serious problem in small counties. Although the chief district court judge is permitted to assign a magistrate to serve in another county within the district on a temporary or emergency basis, in practice few small counties have magistrates available to send to another county.

⁴⁰ CLAIRE C. CARUSO ET AL., NAT'L INST. FOR OCCUPATIONAL SAFETY & HEALTH, OVERTIME AND EXTENDED WORK SHIFTS: RECENT FINDINGS ON ILLNESSES, INJURIES, AND HEALTH BEHAVIORS (2004).

Assoc. of periOperative Registered Nurses, Position Statement: Safe Work/On-Call Practices (Apr. 2005).
 Janice R. Ellis, Wash. St. Nurses Assoc., Quality of Care, Nurses' Work Schedules, and Fatigue: A White Paper (2008).

⁴³ Accreditation Council for Graduate Medical Education, Common Program Requirements (July 1, 2011).

⁴⁴ 49 CFR Parts 395.3, 395.5.

⁴⁵ N.C. G.S. §§ 7A-146(9) -343(11).

Magistrates, clerks of superior court, and chief district court judges in small counties expressed concern that long working hours and difficulty in arranging sick leave and vacation time are an obstacle to the recruitment and retention of qualified magistrates. Several interview and focus group participants recounted anecdotes of applicants withdrawing from consideration after learning about the typical work schedule for magistrates, and magistrates resigning after reductions in staffing created intolerable scheduling demands.

VI. TIMING OF CRIMINAL PROCESSES

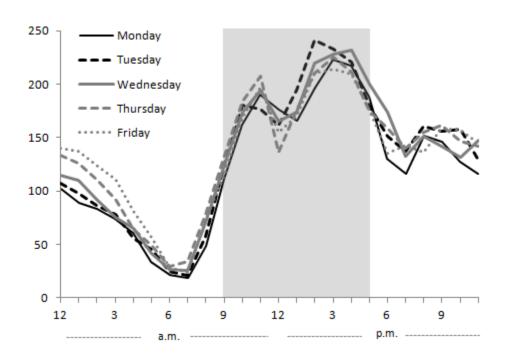
To provide a more thorough understanding of the volume of after-hours work for magistrates in North Carolina, NCSC examined data on the timing of criminal processes issued through the NCAWARE system from July 21, 2013 through August 31, 2013. The NCAOC provided total counts of criminal processes issued in each county, broken down by hour and day of the week. Criminal processes include warrants, summonses, magistrates orders, orders for arrest, and release orders. The number of processes issued does not correspond exactly to the number of initial appearances handled by a magistrate, since multiple processes (e.g., magistrate's order and release order) may be issued in a single case. Furthermore, the process data do not reflect work related to the acceptance of guilty pleas and waivers of trial, or civil matters such as protective orders, small claims, and commitments. Nevertheless, the process data provide a good overview of the relative volume of initial appearances held at various times of day.

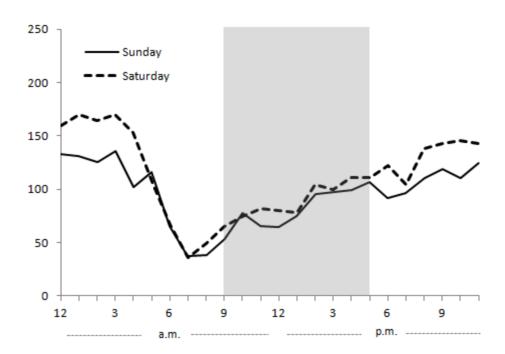
Exhibit 7 (page 19) graphs the total number of criminal processes issued statewide by day and hour. Monday through Friday, the volume of processes is lowest in the early morning hours and greatest in the afternoon, with a relatively steady flow of work between 5:00 p.m. and around 2:00 a.m. On Saturdays and Sundays, the pattern is reversed, with the highest volume of criminal processes being issued during the evening and overnight hours. These general patterns suggest that counties unable to provide continuous in-person staffing for magistrate offices should consider focusing their resources on the hours of approximately 9:00 a.m. to 2:00 a.m. Monday morning through Friday morning, 9:00 a.m. Friday through 6:00 a.m. Saturday, 3:00 p.m. Saturday through 6:00 a.m. Sunday, and 3:00 p.m. Sunday through 2:00 a.m. Monday.

Exhibits 8 and 9 (pages 20-23) provide a county-level view of the timing of criminal processes. Although these data do not provide a complete accounting of the work of magistrates, they can be used in conjunction with a revised weighted caseload model to help determine the optimal allocation of magistrate resources to in-office and on-call shifts throughout the week in each county. To simplify the display, each day was divided into three eight-hour shifts: 9:00 a.m. to 5:00 p.m., 5:00 p.m. to 1:00 a.m., and 1:00 a.m. to 9:00 a.m. "Weekdays" (Exhibit 8) include all shifts between 1:00 a.m. Monday and 5:00 p.m. Friday; "weekends" (Exhibit 9) include all shifts between 5:00 p.m. Friday and 1:00 a.m. Monday. In most counties, the temporal patterns of filings roughly mirror the statewide trends. In a few counties, mostly those at the extremes of the magistrate staffing spectrum (e.g., Hyde, Tyrrell, Wake, Mecklenburg), more processes are issued weeknights between 5:00 p.m. and 1:00 a.m. than during business hours on weekdays. These patterns may be influenced partly by arrest trends and partly by magistrate scheduling practices in these counties (e.g., 100% on call or 24-hour in-person coverage).

⁴⁶ Buncombe County is excluded from this analysis because it was not yet using the NCAWARE system in 2013. ⁴⁷ Exhibits 8 and 9 show the relative volume of criminal processes issued during each shift; the average number of processes issued during each shift is available in the Appendix.

Exhibit 7. Average Number of Criminal Processes Issued in North Carolina, by Day of the Week and Hour





Notes: Includes all criminal processes issued in NCAWARE from July 21, 2013 through August 31, 2013. Does not include Buncombe County. Multiple processes may be associated with a single case.

Exhibit 8. Timing of Criminal Processes by County, Weekdays

	FTE magistrates	agistrates Average		Percentage of daily total			
	authorized as of	processes per	9:00 a.m	5:00 p.m	1:00 a.m		
County	7/1/2013	24 hours	5:00 p.m.	1:00 a.m.	9:00 a.m.		
Alamance	12	47.8	49%	31%	20%		
Alexander	4	13.2	53	31	16		
Alleghany	3	2.4	69	22	8		
Anson	4	18.9	53	38	9		
Ashe	3	6.9	56	37	7		
Ave ry	3	4.5	53	27	20		
Beaufort	4	20.1	51	40	9		
Bertie	3	5.8	59	34	7		
Bladen	4	22.0	62	29	10		
Brunswick	8	40.2	46	35	19		
Burke	5.6	26.7	43	38	19		
Cabarrus	10	43.0	42	39	19		
Caldwell	6	26.5	46	39	16		
Camden	3	1.2	41	48	11		
Carteret	6	35.9	52	33	16		
Caswell	3	3.6	70	26	5		
Catawba	10	48.0	44	41	15		
Chatham	4	11.6	56	31	13		
Cherokee	4	9.6	55	29	16		
Chowan	3	5.1	49	43	8		
Clay	3	3.1	38	48	14		
Cleveland	7	32.5	56	30	14		
Columbus	5	26.8	60	29	11		
Craven	8	30.5	50	37	13		
Cumberland	20	112.1	50	31	19		
Currituck	4	9.4	49	34	17		
Dare	4	15.5	43	33	25		
Davidson	8	46.2	38	49	13		
Davie	4	11.4	56	32	12		
Duplin	4	18.6	50	37	13		
Durham	18	85.7	51	32	16		
Edgecombe	7	33.8	56	33	10		
Forsyth	19	88.2	40	40	20		
Franklin	4	18.1	57	36	7		
Gaston	17	90.2	37	43	20		
Gates	3	4.3	31	42	27		
Graham	3	4.8	69	22	9		
Granville	5	16.3	58	33	9		
Greene	3	5.7	62	22	16		
Guilford	31	216.3	48	34	18		
Halifax	7	34.2	55	32	13		
Harnett	7	28.5	43	42	16		
Haywood	5	28.2	49	40	12		
Henderson	7	39.8	46	39	14		
Hertford	4	9.4	44	38	18		
Hoke	4	15.6	52	31	17		
Hyde	3.5	1.1	9	91	0		
Iredell	9	43.8	50	35	16		
Jackson	4	11.1	55	29	16		
Johnston	10	39.0	53	31	16		

	FTE magistrates	Average	Percentage of daily to		ly total
	authorized as of	processes per	9:00 a.m	5:00 p.m	
County	7/1/2013	24 hours	5:00 p.m.	1:00 a.m.	9:00 a.m.
Jones	3	4.5	44%	43%	13%
Lee	5	27.9	55	33	12
Lenoir	7	24.1	43	38	18
Lincoln	5	23.9	40	41	19
Macon	4	10.6	59	33	9
Madison	3	6.4	43	45	12
Martin	4	10.9	69	25	5
McDowell	4	17.6	59	27	14
Mecklenburg	33.5	320.6	33	41	25
Mitchell	3	5.2	64	29	7
Montgomery	4	11.7	52	40	9
Moore	5	31.8	53	31	15
Nash	9	38.3	48	40	12
New Hanover	13	89.8	46	37	17
Northampton	3	8.8	54	40	5
Onslow	11	58.0	40	40	20
Orange	7	19.3	44	37	19
Pamlico	3	4.4	51	39	10
Pasquotank	4	15.9	46	43	10
Pender	4	15.7	44	39	17
Perquimans	3	3.7	41	34	25
Person	4	15.3	40	51	9
Pitt	13	76.2	48	40	12
Polk	3	5.8	49	40	12
Randolph	9	50.7	49	38	13
Richmond	5	27.6	53	38	9
Robeson	12	76.4	55	37	9
Rockingham	7	28.5	53	35	12
Rowan	9	42.1	44	41	15
Rutherford	6	32.9	49	37	14
Sampson	5	18.7	52	36	12
Scotland	5	27.6	52	37	11
Stanly	5	17.7	51	37	13
Stokes	4	14.4	59	32	9
Surry	6	25.0	48	41	11
Swain	3	9.6	69	19	12
Transylvania	4	9.2	46	37	17
Tyrrell	3	1.5	24	57	19
, Union	7	43.2	39	41	20
Vance	6	29.4	56	32	12
Wake	27	203.1	38	41	21
Warren	3	6.7	51	37	11
Washington	3	3.8	51	40	9
Watauga	4	13.8	46	29	25
Wayne	9	58.2	54	32	14
Wilkes	6	21.3	53	34	13
Wilson	7	42.9	53	34	13
Yadkin	4	12.2	56	29	15
Yancey	3	3.4	59	31	11
Total	659.6	3,179.2	47%	37%	16%

Exhibit 9. Timing of Criminal Processes by County, Weekends

	FTE magistrates	Average	Percentage of daily total			
	authorized as of	processes per	9:00 a.m	•		
County	7/1/2013	24 hours	5:00 p.m.	1:00 a.m.	9:00 a.m.	
Alamance	12	35.6	25%	38%	38%	
Alexander	4	8.0	26	65	9	
Alleghany	3	0.6	27	45	27	
Anson	4	11.8	35	32	33	
As he	3	7.4	45	35	19	
Avery	3	3.2	13	37	50	
Beaufort	4	14.2	22	49	29	
Bertie	3	5.0	25	48	27	
Bladen	4	11.1	16	63	20	
Brunswick	8	27.5	20	40	40	
Burke	5.6	20.8	34	40	26	
Cabarrus	10	40.2	24	36	40	
Caldwell	6	24.1	29	47	23	
Camden	3	1.1	15	15	69	
Carteret	6	34.9	20	36	44	
Caswell	3	4.4	34	48	17	
Catawba	10	42.0	24	44	32	
Chatham	4	12.3	24	51	24	
Cherokee	4	6.4	27	46	27	
Chowan	3	2.8	39	28	33	
Clav	3	1.7	30	30	40	
Cleveland	7	27.5	25	38	37	
Columbus	5	16.0	19	51	30	
Craven	8	19.6	25	47	27	
Cumberland	20	65.7	29	36	34	
Currituck	4	8.1	28	36	36	
Dare	4	12.7	26 15	42	43	
	•		15 25	46		
Davidson	8	33.2			29	
Davie	4	10.2	16	46	39	
Duplin	4	17.4	36	36	28	
Durham	18	59.2	26	38	36	
Edgecombe	7	19.0	31	47	23	
Forsyth	19	77.9	22	39	39	
Franklin	4	14.0	27	39	34	
Gaston	17	87.9	32	38	30	
Gates	3	1.9	13	49	39	
Graham	3	2.7	24	39	37	
Granville	5	11.4	16	47	37	
Greene	3	4.0	27	42	31	
Guilford	31	161.4	25	40	34	
Halifax	7	26.6	28	42	31	
Harnett	7	28.9	30	38	31	
Haywood	5	20.7	29	41	31	
Henderson	7	19.0	39	41	20	
Hertford	4	10.8	31	32	37	
Hoke	4	9.5	40	50	11	
Hyde	3.5	1.2	14	57	29	
Iredell	9	30.9	34	38	28	
Jackson	4	8.0	41	40	19	
Johnston	10	42.5	43	34	23	

	FTE magistrates	Average	Percentage of daily total			
	authorized as of	processes per	9:00 a.m	1:00 a.m		
County	7/1/2013	24 hours	5:00 p.m.	1:00 a.m.	9:00 a.m.	
Jones	3	2.8	29%	41%	29%	
Lee	5	19.0	35	37	29	
Lenoir	7	21.5	30	39	31	
Lincoln	5	20.3	12	57	31	
Macon	4	7.5	29	52	19	
Madison	3	3.8	7	52	41	
Ma rti n	4	7.0	25	55	20	
McDowell	4	7.2	17	60	23	
Mecklenburg	33.5	232.0	20	38	42	
Mitchell	3	2.4	7	76	17	
Montgomery	4	10.1	14	60	26	
Moore	5	13.4	26	41	33	
Nash	9	39.2	31	42	26	
New Hanover	13	67.3	22	39	39	
Northampton	3	6.8	34	50	16	
Onslow	11	52.7	21	45	34	
Orange	7	15.6	26	35	39	
Pamlico	3	4.6	38	41	20	
Pasquotank	4	14.0	36	36	28	
Pender	4	16.0	18	50	32	
Perquimans	3	1.9	27	33	40	
Person	4	14.5	29	52	18	
Pitt	13	74.2	26	44	30	
Polk	3	6.6	15	34	51	
Randolph	9	41.0	24	39	37	
Richmond	5	18.8	26	50	24	
Robeson	12	66.9	27	48	24	
Rockingham	7	22.0	31	40	28	
Rowan	9	36.7	26	39	35	
Rutherford	6	25.1	37	36	28	
Sampson	5	19.9	32	41	27	
Scotland	5	25.8	30	50	21	
Stanly	5	15.2	24	45	31	
Stokes	4	6.7	22	45	33	
Surry	6	21.3	26	48	25	
Swain	3	10.7	20	70	9	
Transylvania	4	7.2	39	32	29	
Tyrrell	3	3.5	10	40	50	
Union	7	35.0	31	42	27	
Vance	6	21.8	33	40	27	
Wake	27	208.2	23	36	41	
Warren	3	3.7	40	51	9	
Washington	3	3.2	39	30	31	
Watauga	4	12.8	18	49	33	
Wayne	9	39.0	29	38	33	
Wilkes	6	14.8	30	48	21	
Wilson	7	37.2	30	36	35	
Yadkin	4	8.1	27	55	18	
Yancey	3	2.6	13	43	45	
Total	659.6	2,530.7	26%	41%	33%	

VII. RECOMMENDATIONS

For many citizens, North Carolina's magistrates are the initial point of contact with the judicial system. The county-based magistrate system is designed to maintain a strong connection between the courts and the community, as well as to provide a timely response to urgent matters such as initial appearances, applications for search warrants and arrest warrants, and requests for domestic violence protective orders. In some small counties, however, this system creates inefficiencies in staffing even as it imposes heavy scheduling burdens on magistrates. Even where a county's total magistrate workload calls for the assignment of just one or two magistrates, a minimum of three magistrates are required to provide round-the-clock availability for time-sensitive proceedings. At the same time, a magistrate whose total workload would be manageable if confined to regularly scheduled business hours may be called out multiple times in one night, creating fatigue and reducing performance and job satisfaction. To address these issues while at the same time maintaining or improving access to justice, the National Center for State Courts recommends that the Administrative Office of the Courts and the North Carolina General Assembly take the following steps:

Recommendation 1. Conduct a comprehensive, empirically based workload assessment for magistrates.

The seven-year-old weighted caseload formula currently used to calculate the need for magistrates in North Carolina is not based on empirical data regarding the amount of time magistrates actually spend processing various types of cases and on non-case-related matters. In addition, the model fails to distinguish among different types of cases that are likely to be associated with different amounts of magistrate work, misclassifies some case-related work as non-case-related work, allots an unusually small proportion of the day to case-related work, and does not account for any differences in case processing or administrative practices between large and small counties.

To correct the weaknesses of the current weighted caseload formula and bring the resource model for magistrates in line with the empirically based weighted caseload models North Carolina currently uses for superior court judges, assistant district attorneys, and victim witness legal assistants, NCSC recommends that North Carolina conduct a comprehensive workload assessment for magistrates. The workload assessment should be grounded in a time study that records the amount of time magistrates across the state currently spend on various categories of case-related and non-case-related work, along with the amount of work conducted outside of regular business hours. The workload assessment should include an analysis of any variation in case processing time and non-case-related work between large and small counties, as well as a quality adjustment process that ensures that the model incorporates adequate time for the effective handling of all types of cases. A workload assessment incorporating all of the necessary features will require between twelve and eighteen months to complete.

An accurate and empirically based weighted caseload model is an essential tool for the analysis of the workload of judicial officers, and will be a necessary aid in developing any plan for regionalizing magistrates. An updated weighted caseload model will also assist the NCAOC in more effectively managing magistrate vacancies and the General Assembly in allocating the appropriate number of magistrate positions to each county.

Recommendation 2. Consider the possibility of regionalizing magistrates within district court districts.

In small counties, the regionalization of magistrates carries the potential to improve efficiency while at the same time reducing the burdens of on-call work for magistrates. The simplest and most practical means of regionalizing magistrates would be to authorize magistrates to serve in any county within the district court district in which they are appointed. This plan would retain the benefits of the county-based magistrate system while permitting magistrates to share after-hours duty across county lines. For example, a county where magistrate workload and resource levels do not allow for round-the-clock staffing of the magistrate's office could pool its resources with one or more nearby counties, allowing the counties to keep one office continuously staffed and giving each magistrate a manageable schedule of in-person night and weekend shifts in place of large amounts of on-call time. The sharing of magistrates across county lines within districts will also facilitate coverage of short-term and long-term absences. Limiting routine resource-sharing to within district court districts will ensure that all magistrates are familiar with local court rules and policies and will maintain most of the current administrative structures for magistrates. Counsel for the General Assembly and the NCAOC should explore the statutory and/or constitutional issues that may be involved with the regionalization of magistrates.

Potential challenges of regionalization within districts include law enforcement resistance to conducting initial appearances through two-way audio and video technology, issues in coordinating magistrate schedules across multiple counties, and the existence of multiple sets of local ordinances. The expanded use of technology for remote appearances should increase immediate access to magistrates for both law enforcement and citizens; Recommendation 3 below includes suggestions for increasing law enforcement's acceptance of the technology. To ensure in-person access to a magistrate when necessary, NCAOC should work with chief district court judges to develop a policy prescribing maximum coverage areas for on-duty or on-call magistrates, preferably on a county-by-county or district-by-district basis to ensure that local factors such as geography, roads, and population density are considered. Scheduling problems can be minimized by requiring the chief district judge to retain authority over magistrate scheduling for the entire district, rather than delegating scheduling to chief magistrates or clerks of superior court in individual counties. 48 All magistrate schedules should be required to conform to a set of guidelines established by the NCAOC and chief district court judges, as discussed in Recommendation 4. Issues with local ordinances can be mitigated by ensuring that all magistrates within each district have access to the text of all applicable ordinances, and by scheduling infractions cases (other than initial appearances) to be heard by a magistrate from the county where the violation occurred.

Recommendation 3. Expand the use of two-way audio and video technology for remote appearances.

North Carolina statute currently authorizes the use of two-way audio and video technology for initial appearances in non-capital cases, the determination of pretrial release conditions, and search warrant and arrest warrant requests by law enforcement officers. A

⁴⁸ If the General Assembly prefers to continue allowing chief district court judges to delegate their scheduling responsibility, as a precaution it may wish to require chief district court judges to reassume scheduling authority when magistrate schedules in individual counties interfere with regionalization.

number of districts, however, have declined to adopt the technology. To make two-way audio and video technology available throughout the state, the General Assembly and the NCAOC should consider providing state funding for videoconferencing equipment in law enforcement offices, as well as removing the requirement that the senior resident superior court judge and the chief district court judge authorize its use. To increase officers' willingness to use the technology, the NCAOC can provide on-location training. To enable on-call magistrates to conduct remote proceedings from their homes, the NCAOC may also wish to provide an individual laptop computer for each magistrate.

In impaired driving cases, many magistrates are currently unwilling to conduct initial appearances remotely because they believe the law requires them to make an in-person assessment of the defendant's condition before imposing an impaired driver hold. A thorough legal analysis from a credible source, such as an NCAOC memorandum, an Administration of Justice Bulletin from the University of North Carolina School of Government, or an advisory opinion from the Attorney General of North Carolina, should help alleviate these concerns. If the legal analysis concludes that an in-person observation of the defendant's condition is required, either to impose an impaired driver hold or to determine whether the hold should be terminated, the General Assembly may wish to enact a statute specifying other types of evidence on which an impaired driver hold may be based, such as an alcohol screening test or chemical analysis. In all types of cases, acceptance of bond may be another barrier to the remote handling of initial appearances. Clear legal guidance on precisely what types of bond may be accepted by jailers, an expansion of jailers' authority to accept bond, and/or the implementation of an electronic payment system for the remote acceptance of bond may help reduce the need for magistrates to take bonds in person.

Expanding the range of matters that can be handled remotely may also improve both efficiency and access to justice. The General Assembly may wish to authorize citizens to request an arrest warrant and/or a domestic violence protective order by appearing remotely before a magistrate from a law enforcement office. Although these provisions will create some additional work for law enforcement officers, they will facilitate the pooling of magistrate resources across county lines. Allowing citizens to appear at a law enforcement office rather than a magistrate's office to request a domestic violence protective order may also reduce the amount of travel required to obtain a protective order in some counties, improving public safety and access to justice.

Recommendation 4. Establish clear parameters for magistrate scheduling at the state level.

Regardless of whether North Carolina chooses to regionalize magistrates within district court districts, the Administrative Office of the Courts should assume a more active role in providing technical assistance related to the scheduling of magistrates. The virtually unlimited discretion currently afforded to counties in scheduling magistrates has resulted in wide variation from county to county in the in-office availability of magistrates, as well as burdensome and potentially harmful work schedules for some magistrates in small counties. Technical guidance from the NCAOC to chief district court judges can help to alleviate these issues, and will be necessary if any plan for regionalization is to succeed.

Recommendation 4(a). Establish a defined set of patterns for the in-person and on-call staffing of the magistrate function, along with specific recommendations for each county and/or district.

The Administrative Office of the Courts should consult with chief district court judges to develop a set of approximately three or four general patterns for the staffing of the magistrate function based upon magistrate workload in counties of various sizes. In defining the staffing patterns, the NCAOC and chief district court judges should take into account policy considerations such as the desire to provide sufficient access to local magistrates within each county, as well as the need to provide the appropriate level of around-the-clock coverage. For example, in larger counties one or more magistrates should be available in the office 24 hours per day, 7 days per week. The pattern for mid-sized counties might include in-office staffing in all counties from 9:00 a.m. to 2:00 a.m. Monday morning through Friday morning, 9:00 a.m. Friday through 6:00 a.m. Saturday, 3:00 p.m. Saturday through 6:00 a.m. Sunday, and 3:00 p.m. Sunday through 2:00 a.m. Monday, with in-person staffing of a limited set of offices within the district at other times. The pattern for the smallest counties might consist of in-office staffing for all counties during district court business hours, with in-person staffing of one office in the district outside of regular business hours.

A staffing pattern should be recommended for each county and/or district based upon its magistrate workload. The NCAOC should then provide district court judges with technical assistance in determining the exact number of magistrates who should be on duty during each shift and where in the district they should be located, taking into account each district's workload, geography, and other unique circumstances. Where a single on-duty magistrate is covering multiple counties, particularly where workload calculations suggest that the on-duty magistrate will be constantly occupied with case-related work, district court judges may also wish to provide for an on-call backup in each county in case of overload or emergency. The general staffing patterns should be reviewed periodically, preferably in conjunction with an update of the weighted caseload model. The categorization of individual counties and districts by recommended staffing pattern should be updated annually as necessitated by changes in magistrate workload.

Recommendation 4(b). Prescribe standards for the work schedules of individual magistrates.

The Administrative Office of the Courts should also consult with chief district court judges to develop a set of standards for the work schedules of individual magistrates. The standards should include maximum lengths for in-office and on-call shifts, minimum rest periods between shifts, and limits on the total amount of in-office and on-call work permitted within a single week. In developing the standards, the NCAOC and chief district court judges should refer to empirical research on the effects of shift length on job performance and employee health and safety, existing standards developed by professional organizations and governmental authorities in the United States and abroad, and the practices of other agencies in North Carolina that employ shift workers, such as fire departments and law enforcement agencies.

In calculating magistrate need for each county and district, the NCAOC should allow sufficient resources to fulfill the county's staffing pattern and to meet the standards for individual magistrate schedules. The chief district court judge and/or her designee should then be free to establish rotation schedules within the parameters of the staffing pattern and scheduling standards.

Appendix. Average Number of Criminal Processes Issued by County and Time Range

		Weekdays	5		Weekends	5	FTE Magistrates
	9:00 a.m	- 5:00 p.m 1:00 a.m		9:00 a.m	Authorized as of		
County	5:00 p.m.	1:00 a.m.	9:00 a.m.	5:00 p.m.	1:00 a.m.	9:00 a.m.	7/1/2013
Alamance	23.5	14.9	9.5	8.7	13.4	13.5	12
Alexander	7.0	4.0	2.1	2.1	5.2	0.7	4
Alleghany	1.7	0.5	0.2	0.2	0.3	0.2	3
Anson	10.0	7.1	1.7	4.2	3.8	3.8	4
As he	3.8	2.5	0.5	3.3	2.6	1.4	3
Ave ry	2.4	1.2	0.9	0.4	1.2	1.6	3
Beaufort	10.3	8.1	1.8	3.1	7.0	4.1	4
Bertie	3.4	2.0	0.4	1.2	2.4	1.3	3
Bladen	13.5	6.3	2.1	1.8	7.1	2.2	4
Brunswick	18.4	14.2	7.6	5.6	11.0	10.9	8
Burke	11.5	10.2	5.0	7.2	8.3	5.3	5.6
Cabarrus	18.0	16.7	8.3	9.5	14.5	16.2	10
Caldwell	12.1	10.2	4.1	7.1	11.4	5.6	6
Camden	0.5	0.6	0.1	0.2	0.2	0.7	3
Carteret	18.6	11.7	5.6	7.1	12.4	15.4	6
Caswell	2.5	0.9	0.2	1.5	2.1	0.7	3
Catawba	21.2	19.7	7.1	10.0	18.6	13.4	10
Chatham	6.5	3.5	1.6	3.0	6.3	3.0	4
Cherokee	5.2	2.8	1.5	1.7	2.9	1.7	4
Chowan	2.5	2.2	0.4	1.1	0.8	0.9	3
Clay	1.2	1.5	0.4	0.5	0.5	0.7	3
Cleveland	18.1	9.9	4.5	6.9	10.6	10.1	3 7
Columbus	16.0	9.9 7.7	3.1	3.1	8.2	4.7	5
Craven	15.4	11.2	4.0	5.0	9.3	5.3	8
Cumberland	56.3	34.9	20.9	19.2	23.9	22.7	20
Currituck	4.7	3.2	1.6	2.2	2.9	2.9	4
Dare	6.6	5.0	3.8	1.9	5.3	5.4	4
Davidson	17.5	22.6	6.2	8.3	15.3	9.5	8
Davie	6.4	3.7	1.3	1.6	4.7	3.9	4
Duplin 	9.2	6.9	2.4	6.2	6.3	4.8	4
Durham	43.9	27.7	14.1	15.7	22.4	21.2	18
Edgecombe	19.0	11.3	3.5	5.8	8.9	4.3	7
Forsyth	35.1	35.2	17.9	17.1	30.7	30.2	19
Franklin	10.4	6.5	1.3	3.8	5.4	4.7	4
Gaston	33.6	38.7	17.9	28.4	33.3	26.2	17
Gates	1.3	1.8	1.2	0.2	0.9	0.7	3
Graham	3.3	1.1	0.4	0.7	1.1	1.0	3
Granville	9.4	5.5	1.5	1.8	5.4	4.2	5
Greene	3.6	1.2	0.9	1.1	1.7	1.2	3
Guilford	104.7	73.2	38.5	41.1	65.0	55.3	31
Halifax	18.7	11.0	4.5	7.4	11.1	8.2	7
Harnett	12.2	11.9	4.4	8.7	11.1	9.1	7
Haywood	13.8	11.1	3.3	5.9	8.4	6.3	5
Henderson	18.4	15.7	5.8	7.4	7.9	3.7	7
Hertford	4.1	3.6	1.7	3.3	3.5	4.0	4
Hoke	8.1	4.9	2.6	3.7	4.7	1.0	4
Hyde	0.1	1.0	0.0	0.2	0.7	0.3	3.5
Iredell	21.8	15.2	6.8	10.5	11.7	8.7	9
Jackson	6.1	3.2	1.8	3.3	3.2	1.5	4
Johnston	20.7	12.2	6.1	18.2	14.4	9.8	10

Notes: Averages based on criminal processes issued in NCAWARE from July 21, 2013 through August 31, 2013. Multiple processes may be associated with a single case.

		Weekdays	5		Weekends	5	FTE Magistrates Authorized as of
	9:00 a.m			9:00 a.m			
County	5:00 p.m.	1:00 a.m.	9:00 a.m.	5:00 p.m.	1:00 a.m.	9:00 a.m.	7/1/2013
Jones	2.0	1.9	0.6	0.8	1.2	0.8	3
Lee	15.2	9.2	3.4	6.6	7.0	5.4	5
Lenoir	10.5	9.2	4.4	6.5	8.3	6.7	7
Lincoln	9.7	9.7	4.5	2.5	11.5	6.3	5
Macon	6.2	3.5	0.9	2.2	3.9	1.4	4
Madison	2.8	2.9	0.8	0.2	2.0	1.6	3
Martin	7.6	2.7	0.6	1.7	3.9	1.4	4
McDowell	10.4	4.8	2.4	1.2	4.3	1.7	4
Mecklenburg	107.3	132.0	81.4	47.1	88.1	96.9	33.5
Mitchell	3.4	1.5	0.4	0.2	1.8	0.4	3
Montgomery	6.1	4.6	1.0	1.4	6.0	2.7	4
Moore	17.0	9.9	4.9	3.5	5.4	4.4	5
Nash	18.2	15.3	4.8	12.2	16.6	10.3	9
New Hanover	41.4	33.1	15.3	15.1	26.2	26.1	13
Northampton	4.8	3.5	0.5	2.3	3.4	1.1	3
Onslow	23.3	23.4	11.3	11.2	23.8	17.7	11
Orange	8.5	7.2	3.7	4.1	5.4	6.1	7
Pamlico	2.3	1.7	0.4	1.7	1.9	0.9	3
Pasquotank	7.4	6.9	1.7	5.1	5.0	3.9	4
Pender	6.9	6.1	2.7	2.9	8.1	5.1	4
Perquimans	1.5	1.2	0.9	0.5	0.6	0.7	3
Person	6.1	7.8	1.3	4.2	7.6	2.7	4
Pitt	36.4	30.5	9.3	19.2	32.7	22.2	13
Polk	2.8	2.3	0.7	1.0	2.2	3.3	3
Randolph	25.0	19.2	6.5	9.7	16.1	15.2	9
Richmond	14.6	10.6	2.5	4.8	9.4	4.5	5
Robeson	41.7	28.0	6.7	18.3	32.2	16.3	12
Rockingham	15.2	9.9	3.4	6.9	8.9	6.2	7
Rowan	18.6	17.3	6.2	9.7	14.3	12.7	9
Rutherford	16.1	12.3	4.5	9.2	8.9	7.0	6
Sampson	9.8	6.7	2.3	6.4	8.1	5.4	5
Scotland	14.4	10.1	3.1	7.7	12.8	5.3	5
Stanly	9.0	6.5	2.2	3.7	6.9	4.7	5
Stokes	8.5	4.5	1.4	1.5	3.0	2.2	4
Surry	12.1	10.2	2.7	5.6	10.3	5.4	6
Swain	6.6	1.8	1.2	2.2	7.6	1.0	3
Transylvania	4.2	3.4	1.5	2.8	2.3	2.1	4
Tyrrell	0.4	0.9	0.3	0.3	1.4	1.7	3
Union	17.0	17.5	8.7	10.7	14.9	9.4	7
Vance	16.4	9.5	3.6	7.2	8.8	5.8	6
Wake	77.3	83.6	42.2	47.7	74.3	86.2	27
Warren	3.4	2.5	0.8	1.5	1.9	0.3	3
Washington	1.9	1.5	0.3	1.2	0.9	1.0	3
Watauga	6.4	4.0	3.4	2.3	6.2	4.2	4
Wayne	31.3	18.6	8.4	11.2	14.8	13.0	9
Wilkes	11.2	7.3	2.8	4.5	7.2	3.2	6
Wilson	22.5	14.7	5.7	11.0	13.3	12.8	7
Yadkin	6.8	3.6	1.8	2.2	4.4	1.5	4
Yancey	2.0	1.0	0.4	0.3	1.1	1.2	3
Minimum							
TVIII III III III III	0.1	0.5	0.0	0.2	0.2	0.2	

 $Notes: Averages\ based\ on\ criminal\ processes\ issued\ in\ NCAWARE\ from\ July\ 21,\ 2013\ through\ August\ 31,\ 2013.\ Multiple\ processes\ may\ be\ associated\ with\ a\ single\ case.$