Perceptions of Cold Case Work in Mississippi Law Enforcement

Lindsey Pittman

University of Mississippi. Sally McDonnell Barksdale Honors College

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Perceptions of Cold Case Work in Mississippi Law Enforcement

by

Lindsey B. Pittman

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the Sally McDonnell Barksdale Honors College.

Oxford
April 2014

Approved by

____________________________________
Advisor: Dr. Carl Jensen

____________________________________
Reader: Melissa Graves

____________________________________
Reader: Matthew Hall
The purpose of this study is to see whether law enforcement personnel in Mississippi believe cold case units and, specifically, analysts are beneficial and worthwhile. This study will focus primarily on whether having used the Mississippi Cold Case Unit (MCCU) has had an impact on people’s perception of analysts and analytical methods within the law enforcement community. The study was conducted through the use of an online survey using Qualtrics Research Suite (Appendix A). The responses were then analyzed using the statistical software GraphPad Prism 6. Responses showed that there is very little difference in perception of the MCCU between those who have and have not used the MCCU.
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CHAPTER 1

INTRODUCTION TO STUDY

INTRODUCTION

Law enforcement agencies have begun using cold case units increasingly in recent years due to the rising number of unsolved cases. Homicide clearance rates were 91 percent in the 1960s and have since fallen to only 63 percent of cases being solved today (Federal Bureau of Investigation, 1965; 2009). Improving forensic technologies, such as DNA analysis, and databases, like the Combined DNA Index System (CODIS), provide better chances of solving these cases even after many years of being considered a cold case. Cold case units have also gained popularity with the population as a whole because of television shows like *Cold Case*.

There are many reasons for the significant decline in the clearance of homicides in the United States. The nature of homicides has changed over the past few decades (Gilbert, 1983). What could be solved by officers on the scene or with the use of witness testimony is less likely to be solved today because homicides have shifted from mostly being personal crimes to having a mix of personal and stranger-on-stranger characteristics (Greenwood, Chaiken, and Petersilia, 1977; Chaiken, Greenwood, and Petersilia, 1977). Stranger-on-stranger violence has increased, which decreases the likelihood that there will be someone who can provide information on likely perpetrators (Cardarelli and Cavanaugh, 1992). Access to media such as television and the Internet gives people more access to creative ideas. Other technologies, such as firearms or
vehicles, allow people to commit homicide without having to get in close proximity to
the victim, leaving less biological evidence for police officers to collect at the scene.
Factors such as these make solving a homicide at the scene more difficult.

The Mississippi Bureau of Investigation (MBI) established the MBI Cold Case
Unit (MCCU) in 2004 to help solve cold cases in Mississippi (Smith, 2013). The unit
uses unpaid interns from the University of Mississippi to provide a fresh look and new
analysis on cold cases that the director of the unit believes can be furthered by the
intern’s analysis. The intern is not expected to solve the case; instead interns in the unit
are expected to review cold cases, organize and supplement information already in the
case file, and ultimately provide new leads to the law enforcement agency that originally
submitted the case. The hope is also that the intern will gain valuable experience with
case files that he or she will use in a future career in law enforcement, thus bettering the
law enforcement community. The end product that the unit returns to the submitting
agency, in addition to the case file, is called a Smart Book.

PROBLEM STATEMENT

The rift between sworn officers and analysts is a pervasive problem in law
enforcement. It is unknown whether or not law enforcement agencies in Mississippi
believe that adding analysts to law enforcement personnel is beneficial. This study will
focus on whether having used MCCU has had an impact on people’s perception of
analysts and analytical methods within the law enforcement community. Data were
collected using an online survey sent out to law enforcement agencies in Mississippi and
then analyzed with the use of statistical methods.
PURPOSE OF STUDY

The purpose of this study is to see whether law enforcement personnel in Mississippi believe cold case units and, specifically, analysts are beneficial and worthwhile. The researcher will assess whether or not a person’s perception was changed by use of the MCCU by asking the following questions:

1. Do law enforcement personnel who have used MCCU have a more positive perception of cold case units than law enforcement personnel who have not used MCCU?

2. Do law enforcement personnel who have used MCCU have a different perception of what cold case units can accomplish than law enforcement personnel who have not worked with MCCU?

3. Do law enforcement personnel who have used MCCU have a greater appreciation of analysts and analytical methods than law enforcement personnel who have not used MCCU?

Hypotheses

H₁: Law enforcement agencies that have used MCCU will value the unit more than those who have never used MCCU.

H₂: Personnel from agencies that have submitted cases to MCCU will believe that cold case units can accomplish greater things than those who have not submitted a case to MCCU.

H₃: Personnel who have benefitted from using MCCU will have a greater appreciation for analysts and analytical methods than personnel who have not submitted cases to MCCU.
The researcher will use qualitative and quantitative statistics and analysis on data obtained through an online survey sent to personnel in law enforcement agencies throughout Mississippi.

LIMITATIONS AND ASSUMPTIONS

The perceptions that law enforcement personnel have about cold case investigations may not be able to be fully realized by a short online survey. However, the survey includes multiple types of questions, including an open ended question that allows the participants in the study to voice their opinions as they wish. The survey was constructed to maximize validity, meaning that the survey will indeed test what it is supposed to test.

The researcher may be biased towards MCCU providing a beneficial service to the state of Mississippi since she worked with the unit as an intern. The hope that law enforcement personnel valuing analysis and organization will make them more likely to follow these practices themselves is definitely colored by the experience that the researcher had as an intern with the unit. However, noticing this bias, the researcher will take precautions to minimize its effect.

There is also an assumption that may affect the results of the study. The researcher assumes that the law enforcement personnel will answer the surveys fully and truthfully. We minimized this limitation by assuring confidentiality.

SUMMARY

Rising unsolved homicide rates and improving forensic technologies and databases have caused an increase in the number of cold case units in the United States in
the past few years. In 2004, MBI created MCCU to provide analysis of cold cases for law enforcement agencies in Mississippi.

The purpose of this study is to see whether law enforcement personnel in Mississippi believe cold case units, and specifically analysts, are beneficial and worthwhile. Difference in perceptions about analysts will be obtained through comparing the answers of those who have used MCCU with those who have not. The study attempts to answer the following three question: (a) Do law enforcement personnel who have used MCCU have a more positive perception of cold case units than law enforcement personnel who have not used MCCU? (b) Do law enforcement personnel have a different perception of what cold case units can accomplish than law enforcement personnel who have not worked with MCCU? and (c) Do law enforcement personnel who have used MCCU have a greater appreciation of analysts and analytical methods than law enforcement personnel who have not used MCCU?

In the second chapter, I present a review of literature pertinent to the study. This will include an explanation of the rise of cold case units in general, the formation of the MCCU, and the methods MCCU utilizes to analyze case files.

Chapter Three will include an explanation of the method of research and interpretation of the results. Information about the survey, sample population, and methods of data collection and analysis will also be included in Chapter Three.

The fourth chapter will present the results of the study. The analysis used on the results will be explained further.

Chapter Five will include a discussion of the results as well as implications for the future.
CHAPTER 2

REVIEW OF RELATED LITERATURE

INVESTIGATIONS

There has been only limited research into the effectiveness of police investigations. One RAND study claimed that cases are solved because the evidence or witnesses rather blatantly point out the identity of the perpetrator (Greenwood and Petersilia, 1975). Since that study nearly forty years ago, research findings have been mixed about investigations. Two studies found that the efforts of patrol officers on the scene, often with the help of the public, contribute more to the resolution of a case than the investigative efforts of detectives after the initial report (Greenwood, Chaiken, and Petersilia, 1977; Chaiken, Greenwood, and Petersilia, 1977). The benefit of public participation was supported by a study in which witness accounts were shown to increase clearance and conviction rates (Forst, Leahy, Shirhall, and Bartolomeo, 1982).

The efficacy of detectives is called into question by a study that found that investigators only spent a mere seven percent of their time on activities deemed as crime-solving and of those crime-solving activities, nearly half were post-arrest administrative tasks (Chaiken, Greenwood, and Petersilia, 1977). Despite the statistics brought up in the study by Chaiken, et al., many researchers still claim that the work done by detectives is just as substantial a contribution to clearance rates as work done by patrol officers (Forst
et al., 1982; Eck, 1983; Willman and Snortum, 1984). However, one study noted that investigators often overlook the usefulness of witnesses, informants, police records, and other law enforcement resources despite the research showing that many of these components, namely statements from people, are integral to obtaining higher conviction rates (Eck, 1983; Forst et al, 1982).

The studies discussed so far indicate that it is primarily the work done prior to detectives receiving a case that results in closures, such as thorough crime scene descriptions and witness statements. Indeed, detectives can only provide considerable help in those cases in which adequate pertinent information to the case is included and well documented, specifically the records written by patrol officers at the scene of the crime (Greenberg, Elliott, Kraft, and Proctor, 1977). Multiple studies agree that timely identification of the perpetrator has an impact on clearance rates and as time passes, cases are less likely to be closed (Willman and Snortum, 1984; Greenwood et al., 1977). However, many cases are not closed in a timely fashion, and detectives receive these cases which have gone cold. As pointed out earlier, Chaiken, et al. found that detectives only spent seven percent of their time on routine administrative tasks and investigative tasks, but even at only seven percent of a detective’s time, these tasks often result in case clearances (Chaiken, et al., 1977; Willman and Snortum, 1984).

WHY CLEARANCE RATES HAVE DROPPED

Since the 1960s, clearance rates for homicides have dropped from 91 percent to 63 percent (FBI, 1965; 2009). There are many studies that have searched for the reason for this decline; two studies claim that the nature of violent crime has shifted to more
stranger-on-stranger violence (Gilbert, 1983; Cardarelli and Cavanaugh, 1992). In support of the assertion that stranger-on-stranger violence makes solving a homicide much more unlikely, other studies found that 95 percent of all uncleared homicides involved strangers or relationships that were unknown to the police (Regini, 1997; Rojek, 1996). The most widely accepted reason for why clearance rates have declined is that there are multiple interrelated factors involved. The International Association of Chiefs of Police (IACP) Murder Summit came to the conclusion that a mixture of increased stranger homicides, gang and drug related activity, and the availability of guns make homicides more difficult to solve (IACP, 1995). The availability of guns plays a role because the use of a gun often allows the perpetrator to commit a crime without leaving any biological evidence at or near the crime scene. The other two factors noted by the IACP that decrease the chances of finding a lead easily include having no discernible connection between the victim and the perpetrator, or if the murder is gang or drug related, having connections that still may not be obvious and no one is likely to come forward with information (Lattimore, Riley, Trudeau, Leiter, and Edwards, 1997; IACP, 1995). As noted earlier by Forst, et al., the help of the public contributes greatly to closing homicides, but many studies show that the public is now helping less and less often because of fear of retaliation from the perpetrator or associates of the perpetrator and distrust of police (Forst et al., 1982; Riedel and Jarvis, 1998; IACP, 1995; Cordner, 1989; Riedel, 1995).

As violent crimes rose during the 1980s and 1990s, investigators were not able to devote as much time to each case (Regini, 1997). Studies have found that investigators under time constraints often failed to follow up leads or even conduct complete initial
investigations (Thompson, 2000; Thompson, Chinoy, and Vobejda, 2000; Vobedja and Chinoy, 2000; Ahlberg and Knutsson, 1987; Greenwood et al., 1977). As noted earlier, a study by Greenberg, et al. found that comprehensive initial case files significantly increase the likelihood that a case can be solved by a detective (1977). A few more recent studies show that most cleared cases were solved shortly after the crime, and that the longer a case stays open, the harder it is to solve (Lee, 2005; Regoeczi, Jarvis, and Riedel, 2008).

Solving a case that has been open for a while is significantly harder to solve since investigators might have cut a few corners to try to catch up with their workload as previously noted (Thompson, 2000; Thompson, et al., 200, Vobedja and Chinoy, 200; Ahlberg and Knutsson, 1987; Greenwood, et al., 1977). Intuitively, this situation has a good chance of compounding the problem. Imagine, an investigator tries to catch up on a backlog of cases by taking shortcuts, which makes any cases that remain open harder to solve in the future. As time passes, the investigator has more open cases than he or she can handle.

Compounding the problem, additional witnesses to a crime are unlikely to be located if they were not found in the beginning of the investigation, unless they come forward on their own, which is how most cold cases investigations are initiated (Davis, Jensen, and Kitchens, 2011). Also, witnesses that the police already have spoken to might no longer wish to speak to the police for many reasons, such as intimidation (IACP, 1995). An integral witness may also pass away or otherwise disappear, leaving an investigator without someone to follow up with if he or she has any additional questions
for that witness. Not only do witnesses occasionally disappear, but over time, evidence is sometimes lost in storage or in transit to a different storage area.

**COLD CASE UNITS**

When law enforcement agencies noticed that they had a large backlog of open cases in the 1980s, many involving violent crimes, the police realized that there needed to be a way to solve some of their cases that had gone “cold” (Jensen and Nickels, 2011). The first cold case squad began when the Washington Metropolitan Police Department asked the FBI for help in clearing some of their cold cases in 1992 (Jensen and Nickels, 2011). Six FBI special agents were assigned the task of investigating cold cases and the results were notable (Jensen and Nickels, 2011). One study found that between 1992 and 1997, the FBI unit closed 157 cold cases (Regini, 1997). Due to the success enjoyed by the FBI unit, many police departments decided that a team of cold case investigators could be beneficial to their own departments. While many cold case units are successful in closing at least a few cold cases for their departments, not much research has been done to determine if the cost of running a cold case unit is justified by the benefits they provide. We examine that in part in this study.

Little research has been conducted on whether cold case units are as effective as the initial results showed. The Bureau of Justice Assistance declared the number of cases solved to be the best measure of the effectiveness of a cold case unit (Turner and Kosa, 2003). However, this does not measure efficiency. To see how efficient a cold case squad is, one would need to compare the number of cases solved with some other factor, such as money or time expended on the investigation (Jensen and Nickels, 2011). A study by
RAND found that about twenty percent of cold case investigations are cleared, five percent result in arrest, and only one percent end in a conviction (Davis, Jensen, and Kitchens, 2011). While closing cold cases gets violent criminals convicted one percent of the time, it is unknown what the cost is for this one percent when compared to normal conviction rates. The RAND study by Davis, et al. found that there is little information available on the efficiency of cold case units (2011).

Cold case units can take many different forms. Some squads are composed of a team of dedicated cold case investigators, others are a mixture of sworn and unsworn personnel, while other cold case units are not permanently staffed but have the personnel in the department cycle through working cold case investigations (Smith, 2013; Jensen and Nickels, 2011). Most cold case units also do not have a standardized protocol for choosing which cases should be worked and which are unlikely to be solvable at the current time (Davis, et al., 2011; Smith, 2013). This lack of standardization has greatly contributed to the difficulty in assessing the efficacy of cold case units (Davis, et al., 2011).

HOW COLD CASES ARE INVESTIGATED

Most studies find that cases are more likely to remain unsolved the longer that they are open, but cold case units have found ways to make time work in their favor (Lee, 2005; Regoeczi et al., 2008). A major reason time has worked in the favor of cold case work is due to the advances in technology that are utilized in police investigations today. The advent of DNA testing as well as multiple automated databases for things like DNA, fingerprints, and guns has provided a much easier way to find connections between
aspects of the case an investigator is working and other cases outside his or her jurisdiction (Regini, 1997).

Another way that cold case units exploit the passage of time is in using the natural shifting of human relationships to a case’s advantage (Jensen and Nickels, 2011). As relationships end, witnesses may come forward with information on someone that they would not have provided at the time of the initial investigation. Also, as time passes, witnesses may come forward because of many other pressures, such as guilt over having kept helpful information from the authorities, or legal problems that they can get help with by helping the police (Jensen and Nickels, 2011). In the RAND study by Davis, et al., the researchers found that the most common and cost effective type of cold case investigation is one in which an eyewitness comes forward with new information (2011).

Cold cases are worked in many different ways. There is a great range of organization and systemization in cold case investigations (Davis, et al., 2011; Smith, 2013, Jensen and Nickels, 2011). Obviously, all of the systems involve looking back over the case files to see if there was any information that was previously missed, but the manner of doing this varies. Some squads reorganize the information by topics first and then analyze it; others first look for what evidence could be resubmitted for testing that was not available at the time of the initial investigation (Smith, 2013; Jensen and Nickels, 2011). The following points of interest are specific to what analysts working with MCCU examine, but many, if not all, of these topics are mirrored in most cold case investigations (Smith, 2013; Davis, et al., 2011). The information in the case file is inspected for any discrepancies in and between statements and between statements and the physical evidence, any additional evidence that could be collected or submitted for testing, and
any additional witnesses or suspects that were overlooked (Smith, 2013). The investigators in the cold case squad fill in the gaps in the information in the case file as well as they can, and either the case moves forward or it is returned to the backlog of cold cases until new information becomes available.

MISSISSIPPI COLD CASE UNIT

Even though there is little definitive research on who is best suited to work cold cases, the Bureau of Justice Assistance (BJA) holds the belief that cold cases should be worked by senior, experienced investigators (Turner and Kosa, 2003). MCCU takes a different approach. Originally, the unit was staffed by a sworn director and a non-sworn analyst (Smith, 2013; Jensen and Nickels, 2011). The director, who is the experienced, senior investigator, does not greatly assist in the analysis of the cases; the director instead performs administrative duties for the unit (Jensen and Nickels, 2011). However, he will aid analysis by obtaining information that the analyst may not be able to access.

The unit uses unpaid interns from the University of Mississippi to provide a fresh look and new analysis on cold cases that the director believes can be furthered through analysis. These interns are often criminal justice majors or intelligence and security studies minors, so they enter into the internship with some analytical skills that could be of use in the investigation of cold cases. The intern is not expected to solve the case; instead interns in the unit are expected to review cold cases, organize and supplement information already in the case file, and ultimately provide new leads to the law enforcement agency that submitted the case originally (Smith, 2013).
The end product that the unit returns to the submitting agency is called a SmartBook. The SmartBook is the reorganized and enhanced case file. At its inception, the SmartBook had the following nine sections:

- Offense reports – initial scene reports
- Investigator reports – supplemental reports
- Victim information – biographical information, criminal history, photos, autopsy/medical reports
- Suspect information – biographical information, criminal history, photos, Miranda waiver, statements, etc.
- Witness statements – handwritten and transcribed statements
- Evidence – submission forms and result reports
- Additional case documents related to investigation – subpoenaed information, bank records, phone records, newspaper articles, etc.
- Additional documents not related – information that has been misfiled or deemed irrelevant to the case
- Investigator noted – handwritten investigator notes (Jensen and Nickels, 2011)

After the SmartBook was completed, the intern analyzed the case file to find any discrepancies or evidence that had been overlooked, which often lead to new leads. After the analyst finished exhaustively looking through the case file, his or her findings were presented to a panel of representatives from the agency that originally submitted the case, the District Attorney’s office and assisting agencies (Jensen and Nickels, 2011).
Since the report by Jensen and Nickels, MCCU has altered its presentation of the SmartBook. The SmartBook is no longer the reorganized and relabeled case file. The case file is included, but the SmartBook now consists of everything that the analyst would have told investigators in the debriefing at the end of analyzing the case. The new SmartBook now consists of the following sections in addition to the reorganized case file which still adheres closely to the aforementioned divisions:

- Cover sheet – victim information, list of main witness and main suspects
- Case synopsis – written by analyst using synopses from initial investigators, medical examiner, and own understanding of case after thorough analysis
- Evidence log – evidence submission dates, numbers, location at scene, what test were run on the items, and the results of the tests
- Summaries of witness statements – witness information and a date and synopsis for every statement the witness has given
- Timeline – pertinent dates, including birthdates and dates from criminal records, and times and dates of the event leading up to the murder
- List of people not yet interviewed – names and phone numbers for people that the analyst found in the case that the case investigators may want to contact
- Recommendations – additional leads

The new director has also taken a more “hands on” approach and will help the analyst obtain additional information or records for the case file that was not already included.

The unit also works more closely with the crime lab and will submit evidence to be tested so that any new findings can be integrated into the recommendations for the agency that submitted the case.
While the methods of MCCU do not follow the staffing recommendations that the BJA set forth in 2003 and the unit does not work in a fashion similar to many other cold case units, MCCU has seen some substantial success (Turner and Kosa, 2003; Smith, 2013). MCCU boasts about a nine percent conviction rate for cases worked compared to the national average of one percent (Jensen and Nickels, 2011; Davis, 2009). Also, in ten percent of the cases worked by MCCU, the recommendations of MCCU analysts led to additional DNA evidence being collected for future testing (Jensen and Nickels, 2011). When these rates are paired with the fact that there is very little overhead cost for the unit since most of the work is done by unpaid interns, the MCCU format of a cold case unit appears to be an efficient option.

PERCEPTIONS OF COLD CASE UNITS AND ANALYSIS

There is little literature on how sworn law enforcement personnel at a state or local level interact with analysts. However, this study is partly driven by the noted rift between agents and analysts at the federal level. The researcher hopes to find whether or not the friction sometimes seen between different subsets of workers in federal government agencies is mirrored at a lower level.

As noted in the 9/11 Commission Report, the different agencies were stove-piped, working the same problem from different angles and rarely sharing their findings (2004). Due to the sheer size of these agencies, the same effect can occur between different divisions. One agency that noticed that these division had the potential to cause problems is the Drug Enforcement Administration (DEA) (Lederman, 2003). In Lederman’s report, the DEA explained that it integrated its analysts into law enforcement to rectify information flow issues that it noticed were persistent in the CIA and FBI (2003).
In a follow up report about the changes made because of the 9/11 Commission Report, panelists noted that analysts continue to be treated as “furniture” or “carpet dust” by Special Agents because of the continuing ethos of the FBI (Cummings and Masse, 2005). Cummings and Masse also noted that the FBI has begun using groups, called Field Intelligence Groups (FIGs), which are similar to the DEA’s integrated analysis groups (2005). However, these FIGs are not functioning as well as they could because the analysts must earn the respect of the Special Agents before they can work together as intended (Cummings and Masse, 2005).

From personal experience with the MCCU, the researcher saw first-hand, that there is sometimes a disconnect between the MCCU and the Mississippi State Crime Lab, whether through human error or protocols that made obtaining information difficult. The lack of information being given had the potential to cause friction between the workers of the two departments. If two groups that are in the same building occasionally have information flow problems, the researcher believes that it follows that this may affect the entire state.
CHAPTER 3
RESEARCH DESIGN AND METHODOLOGY

INTRODUCTION

There is very little information regarding whether cold case units in the U.S. are cost effective. Since there has been little follow up on the outcomes of cold case work, it is difficult to get a grasp on the efficacy of these units. However, one way to examine this problem is to see how useful people in the field of law enforcement think they are. This study examines the views that law enforcement personnel in Mississippi have about the MCCU and to some extent, analysis within law enforcement work.

The research questions guiding this study are:

1. Do law enforcement personnel who have used MCCU have a more positive perception of cold case units than law enforcement personnel who have not used MCCU?

2. Do law enforcement personnel who have used MCCU have a different perception of what cold case units can accomplish than law enforcement personnel who have not worked with MCCU?

3. Do law enforcement personnel who have used MCCU have a greater appreciation of analysts and analytical methods than law enforcement personnel who have not used MCCU?
Hypotheses

H₁: Law enforcement agencies that have used MCCU will value the unit more than those who have never used MCCU.

H₂: Personnel from agencies that have submitted cases to MCCU will believe that cold case units can accomplish greater things than those who have not submitted a case to MCCU.

H₃: Personnel who have benefitted from using MCCU will have a greater appreciation for analysts and analytical methods than personnel who have not submitted cases to MCCU.

To answer these questions, participants completed an online survey about the usefulness of different services provided by the MCCU. This chapter will provide further information on the research strategy. The first section provides a breakdown of the demographics of sample pools, the second section describes the survey used to collect participant’s perception and demographic information, and the third section explains the analytic techniques used on the data.

POPULATION AND SAMPLE

The samples for this study were drawn from law enforcement agencies in Mississippi. Particularly, police departments and sheriff’s offices were asked to complete the survey. The first sample group was all agencies which had sent cases in to the MCCU as of 2012. The second sample group consisted of agencies which had not. The agencies chosen which had not used MCCU were also required to have at least fifteen sworn personnel. This parameter was implemented to increase the likelihood that personnel at these agencies had some experience with murder investigations and potential cold cases. The motivation for this was that very small agencies with fewer than fifteen sworn
personnel likely served small communities which did not have a high incidence of homicides.

There are 72 agencies in Mississippi that have submitted cases to the MCCU. Of those agencies, 51 are county sheriff’s offices, 19 are city police departments, and two are university police departments. All of these agencies were asked to participate in the survey. The researcher also selected all 74 agencies in Mississippi which had more than 15 sworn personnel to participate. These agencies consisted of 54 police departments, 15 county sheriff’s offices, and five university police departments.

**DATA COLLECTION AND INSTRUMENTATION**

The study was conducted through the use of an online survey using Qualtrics Research Suite (Appendix A). The hypotheses of this study required questions about attitudes toward cold case work and analysis, as well as demographic information. The information was anonymized as required by University of Mississippi’s Institutional Review Board (IRB).

The attitudes on cold case work and analysis were obtained through a short series of questions about different aspects of cold case work. For many of the questions, the respondents were asked to rate the value of different services provided by the MCCU, such as case file reorganization and a second pair of eyes, on a Likert scale. One question posited that sometimes the original investigators make mistakes in writing a case file and the respondents were asked to rate how much they agree with the statement. This question was meant to characterize the usefulness of a cold case analyst meticulously reviewing a case file. However, some respondents may have chosen not to rate high on agreement with this statement because they truly disagree or because of other factors,
such as hubris or the belief that they are very careful with their own paperwork. One open-ended question gave the respondents a chance to voice their opinions on analysis within law enforcement work. The rest of the questions focused on the demographic information that was tabulated in the previous section.

The survey was distributed through both traditional mail and e-mail. The original invitation to participate was sent by mail to all 146 of the precincts chosen. The letter included a QR code to be scanned into a smart phone to provide another option besides typing in the survey link on a traditional computer. The researcher then emailed the offices at a later date to increase the number of responses. Of the 43 responses used in this study, 41 were collected prior to emailing the invitation. The method of using a QR code on a traditional letter proved much more efficient at garnering the participation of Mississippi law enforcement personnel than emailing the link. The method of using traditional mail that does not get lost in the mass of emails received daily, paired with the ease of access a survey link that can be scanned in and completed on a mobile phone looks very promising for future surveys of this particular group. While it can be noted that perhaps the people who responded to the original invitation would have responded to the email, the numbers still point to a more effective way of soliciting participation in the future.

METHOD OF DATA ANALYSIS

The data were analyzed using GraphPad Prism 6 software. Independent t-tests were performed to find out how attitudes differed based on the following different factors: (a) whether or not the respondents had used the MCCU, (b) the type of agency
the respondent works at, (c) the size of the agency, (d) the position that the respondent holds at the agency, and (e) how many years the respondent has been on the force.

SURVEY VALIDITY

This study examines how Mississippi law enforcement personnel perceive the usefulness of the MCCU. The survey has face validity, as the questions gauge attitudes towards cold case work and analysis, either blatantly or tangentially. The survey collected information on how helpful the respondents believed aspects of the services the MCCU provides are to solving cases. Some of these questions are asked within both the contexts of a cold case investigation and a current investigation. For example, respondents were asked to rate how helpful case file reorganization by the MCCU is, as well as how important case file organization is to an investigator working an open case. By asking the respondents how helpful these aspects are without them necessarily being done by the MCCU, responses may indicate that investigators view these factors as helpful in general, and not just as a last attempt to solve a case that the original investigator could not. The questions are still designed to gauge attitudes towards cold case work. By making a distinction between investigation of cold cases and open cases, the responses may or may not show any perceived difference between the analysis provided by the MCCU and the normal techniques that investigators would ideally employ on every case barring time or resource constraints.
CHAPTER 4
RESULTS
ORGANIZATION OF DATA
The survey was broken up into three types of questions. One portion of the survey consisted of Likert scale questions. For a few of these question types, the respondents were asked to rate on a scale of one to seven how helpful or important certain aspects of cold case work were to investigating cases. The other Likert scale question asked the respondent to rate how much they agree with certain statements on a scale of one to five. The next portion of the survey provided the respondent a chance to voice his or her own opinion about analysis within law enforcement with an open ended question. The final portion of the survey collected all of the demographic information that was used to compare perceptions within the different categories. The next section will discuss the demographic breakdown of the respondents in detail.
RESPONDENT DEMOGRAPHICS
Of the 72 agencies which have used the MCCU and the 74 which have not, eleven responses came from MCCU users and 32 came from respondents who had not used the MCCU, for a total of 43 usable responses. While agencies which had not used the MCCU predominated, there are nearly 300 sheriff’s offices and police departments in Mississippi combined (Mississippi). While the researcher hoped to have equivalent amounts of
responses from both groups, the respondents represent the actual breakdown of the agencies in Mississippi pretty well.

The agency types are somewhat representative in that the police departments predominate. Within Mississippi, there are 82 county sheriff’s offices amongst nearly 300 law enforcement agencies (Mississippi).

Table 1: Overall Respondent Agency Type

<table>
<thead>
<tr>
<th>Agency Type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Department</td>
<td>29</td>
<td>67.4</td>
</tr>
<tr>
<td>Sheriff’s Office</td>
<td>14</td>
<td>32.6</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The respondents who had used the MCCU were a good representation of the MCCU’s client base, which includes 51 of the total 82 sheriff’s offices in Mississippi. This means that 71 percent of the agencies which have submitted to the MCCU are sheriff’s department, which is similar to the numbers shown in Table 2.

Table 2: MCCU User Agency Type

<table>
<thead>
<tr>
<th>Agency Type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Department</td>
<td>4</td>
<td>36.4</td>
</tr>
<tr>
<td>Sheriff’s Office</td>
<td>7</td>
<td>63.6</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The researcher used the size divisions delineated by the Commission on Accreditation for Law Enforcement Agencies (CALEA) (Cordner, 2009). As expected
with Mississippi many small towns, most of the sample represents A-size and B-size agencies. Due to the small amount of larger representatives, the two largest groups are examined together in the analysis. Also, the difference in the total for this demographic results because two respondents left blank the question about agency size.

Table 3: Respondent Agency Size

<table>
<thead>
<tr>
<th>Agency Size</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Size (1-24)</td>
<td>13</td>
<td>31.7</td>
</tr>
<tr>
<td>B-Size (25-74)</td>
<td>18</td>
<td>43.9</td>
</tr>
<tr>
<td>C-Size (75-299)</td>
<td>8</td>
<td>19.5</td>
</tr>
<tr>
<td>D-Size (300+)</td>
<td>2</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Since personnel with investigative experience were the respondents to this survey, the bulk of the participants fall into the mid-career category. However, there is representation for those that are newer to the force and those that have moved beyond investigator roles as supervisors with many years on the police force.

Table 4: Respondent Career Level

<table>
<thead>
<tr>
<th>Career Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early (0-10)</td>
<td>6</td>
<td>14.0</td>
</tr>
<tr>
<td>Mid (11-25)</td>
<td>28</td>
<td>65.1</td>
</tr>
<tr>
<td>Late (26+)</td>
<td>9</td>
<td>20.9</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>100.0</td>
</tr>
</tbody>
</table>
As expected from the career levels represented, most of the respondents are currently working in an investigative capacity, but others have moved up in the ranks into supervisory roles and beyond as the chief of police or sheriff.

**Table 5: Respondent Position in Agency**

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigator</td>
<td>24</td>
<td>55.8</td>
</tr>
<tr>
<td>Supervisor</td>
<td>6</td>
<td>14.0</td>
</tr>
<tr>
<td>Agency Head</td>
<td>13</td>
<td>30.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>43</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

As shown by the tables, the sample collected is reasonably representative of the targeted population of Mississippi law enforcement officers with investigative experience. The next section will illustrate how respondents answered the Likert scale questions when compared to each other within demographic categories.

**DESCRIPTIVE RESULTS**

First, the researcher broke down each demographic group and compared the responses of each Likert scale question to look for any noticeable variances in responses. Table 6 shows the normalized means of the response to each question by the agency demographics and Table 7 shows them by the individual’s career demographics. For the questions that used a Likert scale of one to seven, the mean was divided by seven, and those with a scale of one to five were divided by five. The resulting numbers are on a scale of 0-1 with 0 being the least helpful, important, or agreeable, as indicated by the question, and 1 being the most. These numbers can be compared within the groups to see
which types of respondents answered differently on each question. The question key is provided beneath Table 7. The main comparison to make is between questions Q2B and Q3. Some other potential comparisons are question Q4 with Q6B, and question Q6A with Q2A and Q2B.

Table 6: Comparisons of Normalized Scores on Likert Questions by Agency Subsets

<table>
<thead>
<tr>
<th>Usage:</th>
<th>Agency:</th>
<th>Size of Agency:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q2A</td>
<td>0.786</td>
<td>0.893</td>
</tr>
<tr>
<td>Q2B</td>
<td>0.818</td>
<td>0.879</td>
</tr>
<tr>
<td>Q2C</td>
<td>0.818</td>
<td>0.893</td>
</tr>
<tr>
<td>Q2D</td>
<td>0.757</td>
<td>0.902</td>
</tr>
<tr>
<td>Q3</td>
<td>0.883</td>
<td>0.903</td>
</tr>
<tr>
<td>Q4</td>
<td>0.900</td>
<td>0.839</td>
</tr>
<tr>
<td>Q6A</td>
<td>0.600</td>
<td>0.768</td>
</tr>
<tr>
<td>Q6B</td>
<td>0.840</td>
<td>0.826</td>
</tr>
</tbody>
</table>
Table 7: Comparisons of Normalized Scores on Likert Questions by Agent Subsets

<table>
<thead>
<tr>
<th>Question</th>
<th>Inv.</th>
<th>Sup.</th>
<th>Head</th>
<th>Years on Force:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1-10</td>
<td>11-25</td>
<td>26+</td>
<td></td>
</tr>
<tr>
<td>Q2A</td>
<td>0.881</td>
<td>0.786</td>
<td>0.881</td>
<td>0.857</td>
<td>0.867</td>
<td>0.875</td>
<td></td>
</tr>
<tr>
<td>Q2B</td>
<td>0.869</td>
<td>0.762</td>
<td>0.901</td>
<td>0.857</td>
<td>0.857</td>
<td>0.889</td>
<td></td>
</tr>
<tr>
<td>Q2C</td>
<td>0.875</td>
<td>0.810</td>
<td>0.857</td>
<td>0.833</td>
<td>0.867</td>
<td>0.857</td>
<td></td>
</tr>
<tr>
<td>Q2D</td>
<td>0.887</td>
<td>0.810</td>
<td>0.857</td>
<td>0.904</td>
<td>0.862</td>
<td>0.857</td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>0.894</td>
<td>0.857</td>
<td>0.923</td>
<td>0.976</td>
<td>0.873</td>
<td>0.921</td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td>0.851</td>
<td>0.833</td>
<td>0.869</td>
<td>0.833</td>
<td>0.842</td>
<td>0.911</td>
<td></td>
</tr>
<tr>
<td>Q6A</td>
<td>0.739</td>
<td>0.633</td>
<td>0.750</td>
<td>0.800</td>
<td>0.681</td>
<td>0.825</td>
<td></td>
</tr>
<tr>
<td>Q6B</td>
<td>0.826</td>
<td>0.722</td>
<td>0.883</td>
<td>0.833</td>
<td>0.815</td>
<td>0.875</td>
<td></td>
</tr>
</tbody>
</table>

Q2: How useful are the following aspects of cold case work in solving homicides?

A: A second pair of eyes

B: Organizing case files

C: Suggesting follow-up leads

D: Providing information on forensic techniques

Q3: How important is case file organization in solving cold cases?

Q4: How helpful do you think cold case units are in solving homicides?

Q6A: Agreement with, “Investigators sometimes neglect to include important information in a case file.”

Q6B: Agreement with, “In the future, analysts will play increasingly important roles in police work.”
The comparison between questions Q2B and Q3 shows that respondents tended to answer similarly to both questions, as expected. One point to make is that in every case except smaller sized agencies, respondents answered higher on Q3 as a whole, leading to a negative number in the row labeled as the differences for each column.

Table 8: Normalized Means of Q2B and Q3 by Agency Demographics

<table>
<thead>
<tr>
<th>Usage:</th>
<th>Agency:</th>
<th>Size of Agency:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q2B</td>
<td>0.818</td>
<td>0.879</td>
</tr>
<tr>
<td>Q3</td>
<td>0.883</td>
<td>0.903</td>
</tr>
<tr>
<td>Diff</td>
<td>-0.015</td>
<td>-0.024</td>
</tr>
</tbody>
</table>

Table 9: Normalized Means of Q2B and Q3 by Respondent Demographics

<table>
<thead>
<tr>
<th>Position in Agency:</th>
<th>Years on Force:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inv.</td>
</tr>
<tr>
<td>Q2B</td>
<td>0.869</td>
</tr>
<tr>
<td>Q3</td>
<td>0.894</td>
</tr>
<tr>
<td>Diff</td>
<td>-0.025</td>
</tr>
</tbody>
</table>

When comparing Q4 and Q6B, the two questions about how analysts are perceived in Mississippi law enforcement, we find that the respondents answered similarly to the questions. A note about Tables 8 and 9 is that the differences are positive in this instance.
Table 10: Normalized Means of Q4 and Q6B by Agency Demographics

<table>
<thead>
<tr>
<th>Usage:</th>
<th>Agency:</th>
<th>Size of Agency:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q4</td>
<td>0.900</td>
<td>0.839</td>
</tr>
<tr>
<td>Q6B</td>
<td>0.840</td>
<td>0.826</td>
</tr>
<tr>
<td>Diff</td>
<td>0.060</td>
<td>0.013</td>
</tr>
</tbody>
</table>

Table 11: Normalized Means of Q4 and Q6B by Respondent Demographics

<table>
<thead>
<tr>
<th>Position in Agency:</th>
<th>Years on Force:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-10</td>
</tr>
<tr>
<td>Inv.</td>
<td>0.851</td>
</tr>
<tr>
<td>Sup.</td>
<td>0.883</td>
</tr>
<tr>
<td>Head</td>
<td>0.826</td>
</tr>
<tr>
<td></td>
<td>0.883</td>
</tr>
<tr>
<td>Diff</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>

Question Q6A tended to get responses on the lower end of the scale from participants, which was expected because many people would not want to admit that they make mistakes as often as they do. When comparing Q6A with other responses that can be loosely related to it, some interesting things are found. By demographics, respondents who had either used the MCCU, are a supervisor in their agency, or have been on the force for eleven to 25 years rated the assertion that investigators sometimes make mistakes as a three, or something that they neither agree nor disagree with. The respondents who most agreed with this statement were those in their early careers and late careers.
By comparing how much respondents valued a second pair of eyes looking over their cases with how much they believe that investigators sometimes make mistakes in the first place, some differences among the demographics begin to emerge. The small agencies greatly appreciate a second pair of eyes, but still have the same view as the other respondents about mistakes. The respondent sets pointed out as having a low agreement with Q6A tend to not have as high of an appreciation for a second pair of eyes, except for respondents that have been on the force for eleven to 25 years.

Table 12: Normalized Means of Q2A and Q6A by Agency Demographics

<table>
<thead>
<tr>
<th>Usage:</th>
<th>Agency:</th>
<th>Size of Agency:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q2A</td>
<td>0.786</td>
<td>0.893</td>
</tr>
<tr>
<td>Q6A</td>
<td>0.600</td>
<td>0.768</td>
</tr>
<tr>
<td>Diff</td>
<td>0.186</td>
<td>0.125</td>
</tr>
</tbody>
</table>

Table 13: Normalized Means of Q2A and Q6A by Respondent Demographics

<table>
<thead>
<tr>
<th>Position in Agency:</th>
<th>Years on Force:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-10</td>
</tr>
<tr>
<td>Inv.</td>
<td>0.881</td>
</tr>
<tr>
<td>Sup.</td>
<td>0.786</td>
</tr>
<tr>
<td>Head</td>
<td>0.881</td>
</tr>
<tr>
<td>Q2A</td>
<td></td>
</tr>
<tr>
<td>Q6A</td>
<td>0.739</td>
</tr>
<tr>
<td></td>
<td>0.750</td>
</tr>
<tr>
<td></td>
<td>0.681</td>
</tr>
<tr>
<td>Diff</td>
<td>0.142</td>
</tr>
<tr>
<td></td>
<td>0.131</td>
</tr>
<tr>
<td></td>
<td>0.186</td>
</tr>
</tbody>
</table>

When Q6A is compared to Q2B which gauges the appreciation of reorganization of case files by the MCCU, we find again, that most of the groups that believed that
investigators were not particularly prone to forgetfulness have about the same level of appreciation as the rest of the respondents.

Table 14: Normalized Means of Q2B and Q6A by Agency Demographics

<table>
<thead>
<tr>
<th>Usage:</th>
<th>Agency:</th>
<th>Size of Agency:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Q2B</td>
<td>0.818</td>
<td>0.879</td>
</tr>
<tr>
<td>Q6A</td>
<td>0.600</td>
<td>0.768</td>
</tr>
<tr>
<td>Diff</td>
<td>0.218</td>
<td>0.111</td>
</tr>
</tbody>
</table>

Table 15: Normalized Means of Q2B and Q6A by Respondent Demographics

<table>
<thead>
<tr>
<th>Position in Agency:</th>
<th>Years on Force:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-10</td>
</tr>
<tr>
<td>Inv.</td>
<td></td>
</tr>
<tr>
<td>Sup.</td>
<td></td>
</tr>
<tr>
<td>Head</td>
<td></td>
</tr>
<tr>
<td>Q2B</td>
<td>0.869</td>
</tr>
<tr>
<td>Q6A</td>
<td>0.739</td>
</tr>
<tr>
<td>Diff</td>
<td>0.130</td>
</tr>
</tbody>
</table>

**BIVARIATE RESULTS**

Since the samples were not paired and not normally distributed, the Mann-Whitney U test was used on the data. The small numbers and uneven groups in this study are accommodated by this test. Only one comparison was found to be statistically significant. For the Mann-Whitney U test, the null hypothesis is that there is a 50-50 chance that a response from one group will be greater than a response randomly chosen from the second group. The rejection of this null hypothesis with a p-value <0.05 means
that one group is larger than another as a whole. When asked about the how important the organization of a case file was to an investigation, the comparison between respondents with one to ten years on the force and those with eleven to 25 years gave a significant P-value of 0.0323. Graph 1 further illustrates the difference between these two groups.

Graph 1: Q3 Responses Broken Down by Amount of Time on the Force

In the next chapter, the implications of the results examined in this chapter are discussed.
CHAPTER 5

DISCUSSION

INTRODUCTION

In the previous chapter, many differences within demographics were noted. In this chapter we will discuss these differences and what they may mean for perceptions surrounding cold case work in Mississippi. In the first section, we will discuss how MCCU usage affects people’s perceptions of cold case units and analysis. The second section will discuss how the different demographics may influence how respondents perceive cold case work and analysts.

PERCEPTION OF THE MCCU

First, we will discuss any differences between the respondents who had used the MCCU and those who had not. The original purpose of this study was to find out if having worked with the MCCU had an impact on how law enforcement personnel felt about the unit itself and on analytic techniques in general. Indeed, the hypotheses given for this study all rely on this division.

Hypotheses

H₁: Law enforcement agencies that have used MCCU will value the unit more than those who have never used MCCU.

H₂: Personnel from agencies that have submitted cases to MCCU will believe that cold case units can accomplish greater things than those who have not submitted a case to MCCU.
H3: Personnel who have benefitted from using MCCU will have a greater appreciation for analysts and analytical methods than personnel who have not submitted cases to MCCU.

To examine the hypotheses, we will focus on questions Q2, Q4, and Q6B.

Q2: How useful are the following aspects of cold case work in solving homicides? (A) A second pair of eyes, (B) Organizing case files, (C) Suggesting follow-up leads, and (D) Providing information on forensic techniques

Q4: On a scale one to seven, how helpful do you think cold case units are in solving homicides?

Q6B: On a scale of one to five, how much do you agree that, “In the future, analysts will play increasingly important roles in police work?”

As mentioned in the previous chapter, none of these responses gave statistically significant differences between the two categories and both categories as a whole ranked each of these questions highly with at least a five on the questions with a maximum of seven points and at least a four on Q6B, which had a maximum of five, for definite agreement.

The group which had never used the MCCU actually ranked each of the services provided by MCCU in Q2 higher than those who had used the MCCU. One explanation of this finding is that the respondents who have used the MCCU on cases are more likely to take these aspects of the MCCU for granted. The opposite side of this statement is that perhaps the people who have never benefitted from the MCCU analyzing a case file are enticed by the idea of someone helping out with these tedious, but helpful, aspects of an investigation. The following response from a participant may point out a reason for the difference between the groups:
“Analysts could be a vital and significant part of any investigation. They can be used in more of a support role in which they are needed. In the past, the cold case unit of Mississippi has not been very helpful, except in just organizing a case. No doubt this is important, but I feel that more investigative tools should be included to help agencies which have no investigator or investigators which have extreme case loads...”

The respondent then speaks of a few additional techniques that he or she believes would be extremely helpful. Perhaps the reason those who had used the unit ranked the services provided by the MCCU a little lower after receiving work back from the unit is because they wanted more than the MCCU can provide at this time. So, the responses for Q2 refute H1.

However, the responses for both Q4 and Q6B are consistent with H2 and H3 as seen in Table 6. The respondents who had worked with the MCCU chose higher scores for the work provided by cold case units and analysts in general, than those who had never worked specifically with the MCCU. This distinction further supports the findings by Smith (2013) that users of the MCCU are very satisfied with the work done by the unit. By distinguishing between cold case units as a whole and services provided by the MCCU, the research shows that respondents who had not used the MCCU ranked cold case units lower, even though their responses to Q2 would indicate high support of these units. This indicates that while Mississippi law enforcement personnel all have high appreciation of the services provided the MCCU, they may still not fully grasp the value of cold case units and analysts across the nation. However, even with this slight distortion in perceptions, everyone, regardless of interaction with the MCCU believes that it is valuable to the Mississippi law enforcement community. Indeed, the difference between the appreciation of the MCCU and cold case analysis in general may be attributed to the
fact that the MCCU boasts a higher clearance rates than many other cold case units across the nation.

DIFFERENCES AMONG DEMOGRAPHICS

Outside of the intended comparison of the respondents who had and had not used the MCCU, the study provided some insight into the type of personnel who were most likely to appreciate or not appreciate cold case work and analysis.

First, we will look at how the two different types of agencies surveyed compared. As previously noted, there are 82 county sheriff’s offices in Mississippi out of nearly 300 law enforcement agencies total (Mississippi). The respondent pool is a good representative of these agencies in Mississippi, but the research shows that there is almost no discernible differences between the two local law enforcement types when it comes to the questions asked on this survey.

Next, we will examine whether the size of the agency that the respondent works at has an effect on the way they answered the survey. The general trend of these groups is that the small agencies answered highest, the medium agencies came next, and the large agencies responded the lowest out of the group. As the higher scores support the aspects of cold case work more, perhaps the small agencies have a real appreciation for everything the MCCU can do to help them. The larger agencies also may have analysts of their own, so they may not value the services provided by the MCCU as much because they can do the same things within their own agencies. Another possibility is that the smaller agencies may have more unrealistic expectations of what cold case units offer because of television shows, such as CSI and Cold Case, that idealize the work of analysts.
The only two response sets that departed from this trend among the agency sizes are Q3 and Q4. On question Q3, the medium sized agencies had resounding support for the organization of case files. Question Q4 showed that the small and large agencies both thought that cold case units were more helpful than did the medium sized agencies. When these two are paired together, one finds that there may be a “Goldilocks Zone” for agency sizes. Perhaps the medium sized agencies are large enough to be able to handle most of their cases without the help of the MCCU, but not so large as to be overwhelmed by a backlog of cases which eventually get sent to the MCCU. This mindset can further explain the trends seen between the different agency sizes. The small agencies are glad to be helped on cases that they have little experience with since they likely serve a small population, whereas the large agencies try to solve all of their cases first and as a last resort, the cases are sent to the MCCU.

The length of time on the force was not found to have a major effect on how respondents answered on questions directly related to cold case work. There is no discernable trend between the three groups on Q2 and Q6B. However, this response set produced the only statistically significant difference in all of the comparisons made with the data. Responses to Q3 were greatly divided especially between respondents who had not yet been on the force for ten years and those who were between eleven and 25 years. The respondents with less time on the force are particularly supportive of good case file organization. The lower rated responses from people in the mid-range of their careers could explain the following point.

As a whole respondents answered the lowest on question Q6A than on any others. This demographic breakdown points out where the real bulk of those who responded that
they do not agree that investigators sometimes forget to include pieces of information in a case file. The respondents who have been on the force between eleven and 25 years answered much lower than those who were newer to the force (0-10) and those who had been on the force for a substantial part of their lives (26+). The people who have reached their prime and are confident in their own abilities seem to believe that investigators rarely, if ever, make mistakes when collecting information in a case file. This paired with their lower rating on the importance of case file organization may lead one to wonder if they are surpassing confidence and entering dangerous territory. The rookies and the “lifers” seem to be much more aware that investigators are human, and prone to mistakes. The “lifers” have perhaps learned the hard way that mistakes are made that cost people a lot of time and effort, but the rookies have not.

The difference with the rookies may be that they have not yet become complacent with their work or this finding could be due to a sampling error with the small number of rookies that responded to the survey and the type that were likely asked by supervisors to take it. The officers that have been on the force for fewer than ten years, but were asked by someone in the department to take a survey on cold case investigations may be those who have become a detective in a fewer than ten years and thus are very good at what they do.

This difference found with mid-career individuals could further shed light on the reduced rates of homicide clearance today. Investigators in the prime of their careers, which are also those most likely to be investigating homicides, appear to overestimate their own abilities and rate case file organization as less important than other groups in this demographic.
There is a definite trend amongst different positions in the agencies. The investigators and the heads of the agencies tended to answer very similarly to one another and the respondents who work in supervisory roles consistently rated lower on every single question. As an investigator, respondents value the work done by the MCCU, whether they do that work themselves or end up sending it to the MCCU. Most people who become the chief of police or the sheriff, have risen through the ranks to get there, which includes investigative work. In the event that the head of the agency has not had much investigative experience, that person still has to deal with case clearance rates and sees the end result of good investigative work. The difference with the respondents in supervisory roles may be that they have not had investigative experience, or have lost sight of what it was like to do investigative work. Another reason for the difference is that none of the respondents have worked with the MCCU. This may be because supervisors do not usually submit cases to the MCCU. Either the investigator working the case sends it to the MCCU or the case goes through the head of the agency. Since the supervisors do not have much interaction with cold cases, they may not fully appreciate the work that goes into moving a cold case forward.

COMPARISONS OF SIMILAR QUESTIONS

When comparing the responses to Q2B and Q3 about case file organization, the research shows that respondents tended to answer similarly to both questions, as expected. The only subgroups that differed from the rest of the responses were the smaller agencies and those respondents who had only been on the force for one to ten years.
In every case, except smaller sized agencies, respondents answered high on Q3 as a whole. As noted previously, the small agencies seem to have a real appreciation for what the MCCU can provide for them on investigations, so while file organization is important, file organization by the MCCU is seen as even more beneficial.

The other point to make about the comparison between Q2B and Q3 is that those who have only been on the force for fewer than ten years had the largest difference between scores for these questions. While this group was especially supportive of good case file organization, they did not rate case file organization by the MCCU particularly high. This indicates that these respondents prefer to organize their own cases, believing that it is very important, and not have someone else do it. This could be due to a generational difference between the rookies and the rest of the personnel. The older personnel have not always had to dictate their own notes and have recently had to learn to use computers to write their own case files, whereas the rookies have most likely grown up being comfortable with using computers to write their case files.

The next comparison is between questions Q4 and Q6B. This comparison gives a good look at whether respondents valued cold case units and analysts similarly. The research found that the respondents did answer quite similarly, but there was a trend in rating Q4 higher. The respondents believe the analysts are very useful now and that they may not have much need to play bigger roles than they already do. This indicates that the respondents as a whole believe that the MCCU is already providing the amount of help that they want.

The comparison between Q6A and certain aspects of cold case work attempts to get past some of the resistance to admit to making mistakes. Those who rated agreement
with Q6A the lowest tend to not have as high of an appreciation for a second pair of eyes, except for respondents that have been on the force for eleven to 25 years. While the other low voters, which were supervisors and MCCU users, also tended to have lower appreciation of a second set of eyes than the rest of the respondents, the respondents in the prime of their careers seemed to fully appreciate it. As people with enough years of experience to know that a second perspective can mean a break in a case, perhaps the mid-career respondents mostly appreciate new perspectives and not the editing aspect of a second set of eyes.

**FUTURE RESEARCH**

The most important finding of this study, is tangential to the initial questions of the study. The finding is that law enforcement personnel in the mid-career range that are likely to be investigators are the least appreciative of an organized case file and least likely to admit that they make mistakes. Since this study did not set out to investigate this problem, further research is required to give a full view of its implications. By exploring the mindset of those in the middle of their careers, we may be able to pinpoint a factor in rising numbers of cold cases that can actually be addressed by changes within law enforcement. The external reasons for more cases going cold, such as stranger-on-stranger violence, are not things that law enforcement can do much to affect change in, but closing more cases as they come in, is something that can be changed. If a change in mindset can have an effect on ability to keep cases from going cold, or at least making cold cases more likely to be solved, then there is hope for stymieing the increasing number of violent crimes going unpunished.
CONCLUSION

This study was done to determine if the MCCU is perceived as a benefit to the state of Mississippi. By asking law enforcement personnel about their attitudes towards different aspects of cold case work and analysis, the research found that the MCCU is viewed as beneficial to cold case work. Those who had never used the MCCU had a good perception of it, and those who had worked with the unit before were satisfied with the services provided, as shown by the support of H2 and H3.

The one downside that a few respondents pointed out is that they wished the MCCU provided even more services, a potential reason for the rejection of H1. Many other cold case units provide more services to their clients (Smith, 2013). However, with the intern model that the MCCU uses and the low budget for the program, the unit is not likely to be able provide much more than what it already does (Smith, 2013). This low budget, intern model has been empirically shown to exceed the national average of cold case clearance with significantly fewer full-time employees and lower costs (Jensen and Nickels, 2011; Davis, 2009; Smith, 2013).

The study found that the type of person who would most likely appreciate the MCCU is an investigator at or the head of a small agency. The rest of the factors did not make major differences in the perception of cold case work. One thing to note though, is that people who are mid-career were found to be less accepting of the fact that even investigators make mistakes. So, personnel in this subgroup may be part of the problem with trying to solve cold cases. As noted earlier, comprehensive case files lead to better chances of it being solved later, and not admitting that mistakes happen or that cases
should be well organized, can greatly harm the chances of case closure (Greenberg, et al., 1977).
REFERENCES


RESEARCH SURVEY

Q1. Have you ever utilized the Mississippi Cold Case Unit?
   a. Yes
   b. No

Q2. How useful are the following aspects of cold case work in solving homicides on the following scale?
   Very useless, Useless, Somewhat useless, Neutral, Somewhat useful, Useful, Very useful
   a. A second pair of eyes
   b. Organizing case files
   c. Suggesting follow-up leads
   d. Providing information on forensic techniques

Q3. How important is case file organization in solving cold cases on the following scale?
   Not at all important, Very unimportant, Somewhat unimportant, Neutral, Somewhat important, Very important, Extremely important

Q4. How helpful do you think cold case units are in solving homicides?
   Very useless, Useless, Somewhat useless, Neutral, Somewhat useful, Useful, Very useful
Q5. Pick the item with which you agree most strongly.
   a. Analysts should play only a minor role in cold case investigation
   b. Cold case investigation should be carried out by the original case investigator.
   c. Analysts should support cold case investigations by following the instructions of sworn personnel.
   d. Analysts bring a different perspective to cold case investigations and should play a major role in their investigations.

Q6. To what degree do you agree with the following statements?
   Strongly disagree, Disagree, Neutral, Agree, Strongly Agree
   a. “Investigators sometimes neglect to include important information in a case file.”
   b. “In the future, analysts will play increasingly important roles in police work.”

Q7. What role do you see analysts playing in police work in the future?

Q8. What type of agency do you work for?
   a. Police
   b. Sheriff
   c. State agency
   d. Federal agency
   e. Other ___________________
Q9. How many sworn officers are employed by your agency?

Q10. What is your position in your agency?
   a. Patrol Officer
   b. Investigator/Detective
   c. Mid-Level Supervisor
   d. Senior Supervisor
   e. Agency Head
   f. Other ___________________

Q11. How many years have you worked in law enforcement?
   a. 1-5 years
   b. 6-10 years
   c. 11-15 years
   d. 16-20 years
   e. 21-25 years
   f. 26-30 years
   g. 31+ years