Modern Culpability

A Crime Data Analysis Exploring the Impact of the Felony Murder Rule on the Likelihood of a Plea Agreement in Cook County, Illinois

Anna Engel
Indiana University Bloomington
May 3, 2022

Supervised by Dr. Jennifer Silva & Dr. Jonathan Brauer

Abstract

In the United States, a prosecutor is required to prove an individual intended to kill someone to be charged with murder. However, there is one exception: the felony murder rule. States with the felony murder rule do not need to prove that a defendant intended to cause death but rather that they were present during a crime in which a death occurred. Proponents of the felony murder rule have argued that it prevents individuals from participating in felony crimes due to the possibility of being charged with felony murder. However, recent scholarly research on the felony murder rule has established that the presence of a felony murder rule does not encourage deterrence. Given that the felony murder has been shown to not accomplish what it was designed to do—that is, deterrence—why do prosecutors continue to use it? This thesis argues that the felony murder rule serves to provide legal justification for prosecutors to charge crimes in a way that is more severe in hopes of inducing a plea agreement.

Plea bargaining is like gambling; it is a game of calculated risk in which an individual must decide when a decision is too risky to continue to leave the decision in the hands of fate. In other words, a defendant is much more likely to take the sure thing. In cases involving the felony murder rule, many individuals do not want to chance a life sentence. Instead, evidence suggests an individual is more likely to accept a plea bargain for a lesser non-felony murder rule charge than take the case to trial. This thesis critically analyzes the felony murder rule by exploring the history behind rising incarceration rates and tough on crime policies, as well as prosecutorial incentives to induce a plea bargain. Therefore, this research not only provides additional clarity on the latent effects of the felony murder rule, but it also investigates larger patterns of racial and socioeconomic inequality present within our criminal justice system.

Contents

Introduction

In the early hours of March 10, 2003, Ryan Holle was startled awake by his friend asking for a ride. Still groggy, Ryan tossed his keys to his friend and rolled over falling back asleep. While Holle was two miles away and asleep in his bed, his friend drove to the home of a marijuana dealer. This visit quickly turned violent as his friend attempted to steal a metal safe, killing the dealer's 18-year-old daughter in the process. Hours later, Ryan Holle was arrested for felony murder. (Liptak, 2007).

Ryan Holle was arrested under Florida's felony murder rule (Liptak, 2007). The felony murder rule states that "an individual is guilty of murder if their actions result in the death of another during the commission or attempted commission of a felony offense" (Kokkalera et al., 2021, para.1). Therefore, the felony murder rule allows for an individual, who takes part in a crime in which someone is killed, to be charged with first degree murder, even if they were not the one to have pulled the trigger (Binder, 2004). In the case of Ryan Holle, prosecutors argued that by handing over his car keys, Holle was equally responsible for the crime. "No car, no consequence. No car no murder," argued prosecutor David Rimmer (Liptak, 2007, para. 6).

While the United States judicial system requires a prosecutor to prove an individual intended to kill someone to be charged with murder, there is one exception: the felony murder rule (Lijtmaer, 2008). States that have the felony murder rule do not require prosecutors to prove that a defendant intended to cause death, nor that they pulled the trigger. Instead, to prove the defendant is guilty, prosecutors must simply prove the defendant was present during a crime in which a death occurred (Lijtmaer, 2008). Therefore, legal scholars argue that states' adapted version of the felony murder rule is inconsistent with the principles the United States' legal system requires to prove guilt: intent and culpability (Lijtmaer, 2008).

Proponents of the felony murder rule have argued that it prevents individuals from participating in felony crimes due to the possibility of being charged with felony murder. However, recent scholarly research on the felony murder rule has established that the felony murder rule does not encourage deterrence (Malani, 2002; Ganz, 2012). Therefore, given that the felony murder has been shown to not accomplish what it was designed to do—that is, deterrence—then we should ask: why do prosecutors continue to use it? And, even if it is not fulfilling its intended purpose, does the felony murder role shape processes within the criminal justice system in unintended, yet consequential, ways?

The unchecked power of authority (e.g. prosecutors) to bring forth whatever charges they deem appropriate, no matter the severity nor number of charges, results in a systemic power structure that becomes almost impossible to break. According to criminal sociologist, Austin Turk, legal authority not only encompasses an organizational structure designed to suppress the less powerful but also a system in which prosecutors have more knowledge and resources than the defendants they are charging (Turk, 1969). Therefore, the criminal court is one of the most significant examples of power imbalances in society. It strips citizens of their civil liberties in exchange for select interpretations and enforcements of laws by authority figures resulting in laws not always affecting people in the way they are written. Laws have unrecognized implications within society, often at the cost of those who are subordinate. Therefore, while the felony murder rule may not do what it is designed to do—deterrence—that does not mean that it does not have less apparent consequences elsewhere. Social scientists have demonstrated that criminal processes such as charging defendants, plea bargaining, or conviction tend to entrench existing social inequalities, whether due to bias, lack of resources, or prosecutorial incentives for conviction.

In this thesis, I develop an empirically-based theoretical framework to understand the consequences, whether intended or not, of the felony murder rule. I specifically examine the deterioration of the relationship between criminal liability and judicial principles to argue that the felony murder role contributes to the reproduction of inequality within the courts at the expense of a defendant's inherent right to a fair trial.

Literature Review

I. Felony Murder Rule

While England implemented the first version of the felony murder rule, it abolished the felony murder rule in 1957, leading countries all over the world to do the same (Lijtmaer, 2008). As of now, The United States is the only common law country in the world yet to eliminate felony murder rule statutes not requiring proof of the intention to kill or inflect bodily harm (Lijtmaer, 2008). We are only country in which accomplices to crimes can be charged with felony murder without having pulled the trigger (Binder, 2004).

The felony-murder rule is also an exception to standard sentencing procedures. During sentencing procedures, the prosecutor has the burden to prove that every element of a crime occurred beyond a reasonable doubt (Malle, 2003). These elements include proving a defendant's *mens rea*, translated from Latin as meaning "guilty mind" (Malle, 2003). Unlike other homicide related crimes, in cases involving the felony murder rule, *mens rea* is not required to be established; therefore, the prosecutor does not need to prove the individual charged had the intention to kill (Binder et at., 2016; Birdsong, 2006, Keegan, 2003). In other words, each individual participating in a felony can be held responsible for all homicides caused "intentionally, accidentally, negligently, or recklessly" (Kokkalera et al., 2021, para 7). Any accomplices charged under the

felony murder rule are charged with a much more severe felony sentence than if charged only as an accomplice (Drizin & Keegan, 2003). In some cases, the accomplices to the crime can even receive a harsher sentence than the shooter himself (Kokkalera et al., 2021).

Types of Felony Murder Rules

There are two types of the felony murder rule: proximate cause theory and agency theory (Lijtmaer, 2008). The proximate cause theory is seen as the broadest interpretation of the felony murder rule. According to the proximate cause theory, an individual is liable for the death of the main perpetrator, any co-felons as well as any third parties killed if the death was caused by the commission of the felony crime (Lijtmaer, 2008). However, the agency theory narrows the scope of the felony murder rule by limiting an individual's liability to only the death of the main perpetrator or any co-felons (Lijtmaer, 2008). Under the agency theory, the defendant cannot be charged under the felony murder rule for any third-party deaths that do not occur as a direct result of the defendants' actions. Instead, they would be charged for only their commission in the crime itself such as burglary or robbery and therefore face a much less severe sentence (Lijtmaer, 2008).

Purpose of the Felony Murder Rule

According to researchers, states have adopted the felony murder rule with the belief that the felony murder rule serve one of three purposes: deterrence, retribution, and incapacitation (Banks, 2018). While lawmakers often justify the inclusion of the felony murder rule in a state's criminal code by arguing the felony murder rule encourages deterrence, research indicates the contrary. For example, researcher Anup Malani ran multiple regressions which indicated that the felony murder rule does not significantly deter crime (Malani, 2002). Therefore, if the felony

murder rule does not serve its intended purpose by lawmakers, one may question how the felony murder role contributes to criminal justice processes and outcomes, if at all, that are not part of its explicit purpose.

The deterrence theory is the most cited reason for enacting the felony murder rule (Tomkovicz, 1994, Binder, 2008; Binder, Fissell & Weisberg, 2016). Lawmakers argue that the deterrence theory prevents an offender from committing a crime because the offender understands that if an individual is murdered during the crime, they can be charged with murder no matter their intent nor that they did not pull the trigger (Drizin & Keegan, 2003). However, the deterrence theory rests on several broad assumptions. First, the deterrence theory assumes that the potential offender was aware of the felony murder rule and its potential implications on third party offenders (Tomlinson, 2016). Furthermore, it assumes that the individual feared the potential consequences of the felony murder rule to the extent that they choose not to commit the crime (Tomlinson, 2016). However, there is little evidence that offenders are even aware of the felony murder rule, let alone its implications on third-party offenders (Pratt et al., 2006).

In a study crafted by Pratt, Cullen, Blevins, Daigle and Madensen, there was no correlation between the additional creation of sanctions and crime rates. Therefore, the assumptions needed for deterrence to be a viable justification failed almost every time. Potential offenders were not aware of specific legal rules, and in the limited cases that they were aware, the knowledge did not deter the offenders from committing a crime (Pratt et al., 2006). Other researchers agree with the idea that the felony murder rule does not cause deterrence. Researcher, Martin Lijtmaer, cites research arguing that due to the felony murder rules' lack of ability to deter crime, it should not be used as justification for enacting this statute.

> "Assertions that the doctrine exists to prevent killings that occur in the course of felonies and that it actually achieves its goal are rooted in blind faith or self-delusion…if the rule is to stand upon deterrent premises, it is incumbent upon supporters to do more than speculate. They should have to justify the suspension of our normal insistence upon proof of blame worthiness. Without a credible foundation in established facts, deterrence is not a real justification but is instead a poor excuse for our infidelity" (Tomkovicz, 2008; Lijtmaer, 2008, p. 626).

Therefore, the lack of understanding lay individuals have regarding the United States criminal justice system and more specifically, the felony murder rule, seems to undermine deterrence justifications for its continued use (Pratt et al., 2006).

Additionally, some researchers believe the felony murder rule's main justification is the theory of retribution. Defenders of the felony murder rule believe that regardless of an individual's intent to take another's life, they were involved in a crime and should be sentenced to the fullest extent under the law as a form of retribution to their victim (Burton, 2017; Flynn, 2008). Therefore, under the theory of retribution, accessories to the offense should be punished with a harsher sentence than the actions they committed. Researchers Kokkalera, Strah, and Bornstein argues that the theory of retribution is "an unnecessarily punitive response for this degree of offense, especially when a defendant has not demonstrated the intent to take a life" (Kokkalera, 2021, para. 11).

Finally, some researchers argue that the purpose of the felony murder rule is not deterrence nor retribution to victims but justification for incapacitation resulting in the removal of an individual from society (Banks, 2018). Researchers argue by removing an individual from

society, it prevents an offender from committing future offenses and further harming the public. However, for the incapacitation theory to work under the felony-murder rule, the accomplices sentenced under the felony murder rule must be offenders who commit a crime dangerous to the public more than once (Piquero & Blumstein, 2007). In fact, for incapacitation to be a viable defense, the costs associated with incarcerating the individual must be less than the threat the individual poses to society (Clarke, 1975). In many cases, such as the Ryan Holle case, third-party accomplices provide very little threat to the public. In fact, researchers believe that the crime reduction effects of incapacitation are very small and a dramatic increase of the number of incarcerated individuals is not worth the costs associated (Clarke, 1975).

In sum, many scholars challenge the legitimacy of deterrence, retribution, or incapacitation justifications for the felony murder rule, leaving open the question of the usage and effects of the felony murder rule in today's judicial system. With incarceration rates continuing to rise while crime rates decline (Pratt, 2017) there is reason to examine whether the felony murder rule serves to provide legal justification for prosecutors to incarcerate Americans while appearing "tough on crime" to their constituents.

II. Institutional Background: The Emergence of Tough on Crime Policies

Beginning in the 1960s, violent crime rates began to increase resulting in public outcry against the so-called breakdown of morality and lawfulness (Pfaff, 2017). As a result, President Lyndon B. Johnson declared a war against crime, pledging to decrease crime rates (Hinton, 2016). Following Johnson's declaration, response towards crime became a key topic in politics, taking form in even the highest stage, the 1964 presidential election of Lyndon B. Johnson against opponent, Barry Goldwater. Goldwater promised, "unlike Johnson he would not support or invite

any American to see redress… through lawlessness, violence, and hurt of his fellow man or damage of his property" (Beckett, 1997, p.31). In response to Goldwater's promise and rising crime rates, Johnson understood he must provide the public with justification for rising crime rates and an action plan. Johnson found his justification for rising crime rates in the criminal court (Pratt, 2017). Johnson argued criminal courts were too lenient on sentencing therefore demanding harsher sentencing and cementing the relationship between political success and rigid sentencing forever (Pratt, 2017).

Prison was not always the solution in America. Nearly forty years ago in the 1970s, America's incarceration rates were one-fifth of what they are today (Pfaff, 2017). However, while researchers are not necessarily in agreement on what the caused the surge of incarceration rates in the 1970s, the most widely cited theory is the War on Drugs (Pfaff, 2017). The War on Drugs has resulted in roughly 300,000 people being imprisoned for drug related crimes (Pfaff, 2017). However, if the United States were to release every person in a state prison for a drug related offense, incarceration rates would still be roughly where they were in 1996 and 1997, well into the era of mass incarceration (Pfaff, 2017). Therefore, the War on Drugs is not the primary cause of mass incarceration. In fact, as crime rates eventually began to lull and eventually decline, the number of people incarcerated continued to increase (Pfaff, 2017).

According to John Praff, in his article, the Micro and Macro Causes of Prison Growth, the spike in prison population surrounding the War on Drugs was not due to rising crime rates but a reaction of prosecutorial charging decisions (Pfaff, 2013). Praff's data indicates that since 1994, prisons populations have grown primarily due to the increased rate at which prosecutor are filing charges, including in some cases in which prosecutors attempt to appear "tough on crime" (Praff, 2013).

Nixon's War on Drugs

While federal politicians had limited ways to intervene and address street crime, the legacy of the prohibition provided a convenient infrastructure for politicians to achieve their political agenda of being tough on crime by narrowing in on drug related offenses (Whitford, 2009). Therefore, following a successful political campaign centered around Johnson's ideas of restoring law and order, Richard Nixon took over battling the War on Crime by declaring a more specific enemy: drugs (Whitford, 2009).

Following his confirmation as president, Nixon made his political agenda clear stating, "this administration has declared all-out, global war on the drug menace" (Friedersdorf, 2011). However, according to John Praff, there is no singular war on drugs. "Instead, there have been 50 to 3300 wars on drugs, fought with varying degrees of intensity, occurring in different jurisdictions, and lasting for a variety of years, some until today" (Pfaff, 2017; p 30). In many of these wars, drugs were not the main enemy. In fact, "Congress had already criminalized most major drugs between 1914 and 1937, long before the prison population had started to rise." (Pfaff, 2017, p. 30). Therefore, Nixon's war on drugs should be remembered as a shift in the political response towards crime more so than an attempt to criminalize drugs (Pfaff, 2017). As a result of a shift in the political response towards crime, state legislators began to pass tougher sentencing laws encouraging county prosecutors to enforce those laws more aggressively (Pfaff, 2017 p. 30). According to researcher John Pfaff,

> "It is worth noting not just how local the changes were but how non-legal they were. The decline in drug incarceration wasn't driven by changes in the law, but by some combination of changing local crime rates and changing views of the local police and

prosecutors about who to arrest and how harshly to charge them. It was more of an attitudinal change, not a legal one. This is an important distinction" (Pfaff, 2017, p. 29).

Nonetheless, while considered ineffective in reducing crime, tough on crime policies have made one significant impact on the United States criminal justice system: locking up Black Americans at an unprecedented rate.

Disproportionate Effect of Tough on Crime Policies on Black Americans

During the Civil Rights movement, millions of Black Americans demanded to receive the justice and equality America claimed to provide its citizens. However, while an era of liberal reform was occurring, a political war was lurking designed to prevent African Americans from receiving equality promised. Months following the passage of the Voting Rights Act of 1965, President Lyndon B. Johnson declared a war against crime, demanding law and order be restored (Becket, 1997). According to Katherine Beckett, "the rhetoric of law and order was first mobilized in the late 1950s as southern governors and law enforcement officials attempted to generate and mobilize opposition to the civil rights movement" (Becket, 1997, p.11). Therefore, the enemies of Johnson's war against crime quickly became clear as over the next twenty years, Black men were imprisoned at a rate five times that of white men (Drake, 2013). Even today, the effects of the war linger with Black men comprising over half of all inmates in the United States (Drake, 2013).

While crime rates continued to rise through the 1980s, rates began to decline in the 1990s leading many Americans to believe tough on crime policies and rampant incarceration were the solution. Therefore, many conservatives embraced a political agenda that antagonized racial resentment and framed liberals as soft on crime (Becket, 1997). However, according to John

Ehrlichman, a top Nixon aide, tough on crime policies and the war on drugs were not designed to increase public safety but instead provide justification for the implementation of policies to incarcerate political opposition and Black Americans (Baum, 2016).

> "The Nixon Campaign in 1968, and the Nixon White House after that had two enemies: the antiwar left and black people. You understand what I'm saying? We knew we couldn't make it illegal to be either against the war or black, but by getting the public to associate the hippies with marijuana and blacks with heroin, and then criminalize both heavily, we could disrupt those communities. We could arrest their leaders. Raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course, we did" (Ehrlichman; Baum, 2016).

Nixon was successful in his attempt to incarcerate Black Americans; from 1983 to 2000, the number of Black Americans imprisoned increased 27-fold (Rucker & Richeson, 2021). However, while exasperated during the war on drugs, racial disparities within the criminal justice system remain prevalent today. For example, while data indicates that Black participation in violent crimes has significantly declined in recent years, there have been little change in incarceration rates (Rucker & Richeson, 2021).

Increase in Public Support for Lengthy Sentencing

Set in the time of the Vietnam War, an anti-poverty agenda and the struggle for civil rights, the War on Drugs became more than an attempt to curb rising crime rates; it became a tool for the United States government used to destroy political opposition (Becket, 1997). During the 1960s, drugs were associated with those who rebelled against the United States' government and

encouraged a lack of societal order (Drug Policy Alliance, 2022). Therefore, not only were tough on crime policies designed to eliminate political dissent or disapproval, but these policies also had the ability to foster public support for anti-drug policies by creating a false sense of safety for American citizens amongst rising crime rates (Pfaff, 2017).

Nixon appealed to voters' fears of lawlessness and crime to create political support for his tough on crime policies (Whitford & Yates, 2009). In a 1967 speech, Nixon stated, "Why is it that in a few short years a nation which enjoys the freedom and material abundance of America has become the most lawless and violent history of the free people" (Whitford & Yates, 2009, p. 42). Therefore, anti-crime policies are not considered to be a response to rising crime rates but instead a representation of the "political and ideological processes by which punishment and control have been defined as the primary solutions to crime related problems" (Becket, 1997, p. 11).

By characterizing drugs as a threat to public safety, the United States government was able to use anti-drug rhetoric to advance the administration's agenda forward (Whitford & Yates, 2009). The strategic rhetoric surrounding crime and drugs proved to be largely effective at changing political opinion. Following a survey conducted in 1957, respondents who believe that crime-related problems are the most pressing national problem rose from 5.6 percent to 37.9 percent in 1972 (Whitford & Yates, 2009, p. 40).

While the response to rising crime rates became a key political topic during the 1960's, it has remained a prevalent topic and indicator of political success. Since the 1980's, conservatives specifically have demanded a punitive response to crimes. For example, from 2001-2009, President George Bush emphasized the need for a punitive response arguing, "we must raise our voices to correct an insidious tendency- the tendency to blame crime on society rather than the criminal… I, like most Americans, believe that we can start building a safer society by first

agreeing that society itself doesn't cause the crime – criminals cause the crime" (Becket, 1997, p. 48). Bush argues criminals must face punitive responses to crime rather than reexamining social policies; thereby instituting a dangerous precedent many elected officials continue to follow today.

In fact, political support for being "tough on crime" has become so strong that opposing policies have been labeled as "political suicide" as most communities felt tough on crime policies equated to public safety (Neily, 2021). Because most members of the judicial system are elected, such as chief prosecutors, tough on crime policies have remained well into the twenty-first century as prosecutors do not wish to stray from their constituents demands for tough on crime policies nor appear as though they do not prioritize public safety (Neily, 2021). In fact, in today's judicial system, many prosecutors are politically motivated to appear tough on crime and therefore may seek a more severe sentence (Trivedi & Gonzalez Van Cleve, 2020).

Expansion of Prosecutorial Charging Discretion

During the 1990s and 2000s, the charges filed and punishment towards people convicted of violence represented two-thirds of the increase in incarceration across the United States (Pfaff, 2017). The vast discretion prosecutors have in choosing which crimes to prosecute, and which punishments to enforce, provides prosecutors with the opportunity to seek multiple charges with lengthy sentences to preserve their own public image of being tough on crime. According to scholar Jalila Jefferson-Bullock,

> "In an effort to appear tough on crime, lawmakers chose long sentencing periods almost arbitrarily, with no empirical foundation or justification for sentence length. It is now painfully obvious that lawmakers indiscriminately created an overly punitive sentencing scheme with disastrous outcomes. Strict, determinate sentencing ignores the

indispensable and often overlooked principle of uncertainty" (Jefferson-Bullock, 2016 p. 350).

Bordenkircher v Hayes (1978)

In 1978, Paul Hayes was arrested for writing a fraudulent check in the state of Kentucky. While the average sentence for a fraudulent check was two to ten years, Hayes was charged with a life sentence as he was now considered a repeat offender (*Bordenkircher v. Hayes,* 1978). While the prosecutor originally charged Hayes with a life sentence, he also provided Hayes with the option of a plea deal. If Hayes would plead guilty to writing the fraudulent check rather than going to trial, the prosecutor would recommend a sentence of five years. However, along with the deal, the prosecutor noted that if Hayes was to decline, the prosecutor would insist on a life sentence (*Bordenkircher v. Hayes,* 1978). Exercising his constitutional right to a trial, Hayes argued the case and lost. The prosecutor followed through with his threat and recommended a life sentence. Hayes appealed to the United States Supreme Court arguing that the significant sentencing disparity between the plea deal offered and sentence received can be considered coercive practicing and a violation of his guaranteed due process protections (*Bordenkircher v. Hayes,* 1978). The Supreme Court disagreed. According to researcher John Pfaff, "the lesson of Bordenkircher is clear. No matter how unjust or uncommon the charge, if the facts fit, the prosecutor can charge it, or even threaten to charge it" (Pfaff, 2017, p 132).

III. Theoretical Framework

While tough on crime policies can be viewed as tangible examples of the judicial system's lack of equality and impartiality, it is important to understand how these historical examples work to create a larger sociological explanation of why power imbalances and inequality have remained in our criminal justice system for over 200 years.

Following the social and political unrest of the 1960s, sociologists, specifically conflict theorists, became fascinated with new ways to view the emergence of crime and its larger implications on society (Adler, Mueller, & Laufer, 2001). Conflict theorists argue that laws are interpreted in a way to preserve the interests of those who hold political power resulting in the inability for individuals who are suppressed to rise and counter existing power structures (Shoemaker, 1990).

Conflict theorist, Austin Turk, expanded upon the theory that laws are interpreted in a way to preserve the interests of those who hold political power. In his book, *Criminality and Legal Order*, Turk argues that power differences between authorities and subjects will result in overt conflict (Turk, 1969). Turk defines authorities as those who are decision makers within the criminal justice system such as police, lawyers, prosecutors and judges. Subjects can be defined as any citizens affected by decisions made by authorities and who are unable to manipulate legal processes to their own benefit (Turk, 1969). Therefore, Turk claims crime should not be viewed as "a biological, psychological, or even behavioral phenomenon, but a social status defined by the way in which an individual is perceived, evaluated, and treated by legal authorities" (Turk, 1969, p.25).

In other words, the severity of a crime or the idea that a crime has been committed is not based on the factual evidence presented but the interpretation of facts by legal authorities, or those who hold power. In fact, legal authorities may have distinct behavioral patterns to preserve the existing

power structure which Turk argues will require "a significant degree of coercion and gross injustice to put a stop to" (Turk, 1969, p.58).

The authority structure of the legal system has placed an extensive degree of power and resources in the hands of the legal decision makers (e.g. prosecutors, judges, police officers). Defendants, especially those who have fewer financial means, are inherently at a disadvantage when charged with a crime (Clair & Woog, 2022). Therefore, in accordance with conflict theorists' perceptions of the legal system, the legal system is not impartial nor fair. It is structured in a way to support the power imbalance present between the prosecutor and defendant at the expense of the defendants right to a fair trial.

By understanding that the United States' legal system is structured in a way to support the organization of powerful members of a society (e.g. prosecutors), we are able to examine the legal system through a critical lens revealing larger sociological implications such as the exploitation of a power imbalance to suppress those less powerful.

The power imbalance is created not only as a structural consequence of the legal system but also as a result of the knowledge gap present between prosecutors and defendants. Turk labels this knowledge gap as "sophistication," which he defines as "the knowledge used to manipulate the opposition" (Turk, 1969). According to Turk, individuals who know less about the legal system, in this case, defendants, are more easily exploited due to their lack of knowledge regarding the legal system, such as how charges are brought forth. According to researchers, Matthew Clair and Amanda Woog, working-class defendants and defendants of color are less likely to establish relationships with their lawyers due to their inherent distrust towards members of the judicial system, especially those with more power than them (Clair & Woog, 2022). As a result of weak

relationships with their attorneys, and a lack of knowledge regarding the legal system, defendants are more susceptible to coercion and injustice.

Additionally, working-class defendants and defendants of color are less likely to receive lower-level sentences (Clair & Woog, 2022). The difference in sentencing outcomes and coercive practices present within the legal system has made researchers, Matthew Clair and Amanda Woog, argue that "because of the quality of the attorney-client relationship rooted inequalities in racist police practices as well as the lack of resources afforded to court-appointed defense attorneys, the consequence of the relationship can be understood as a convert and often unintentional form of racial and class discrimination within courtrooms-a kind of discrimination that most legal authorities do not view as problematic" (Clair & Woog, 2022, p. 14).

Unfortunately, these racial and class differences are not as apparent as they may seem within the judicial system. According to researcher, Nicole Gonzalez Van Cleve, in her book, *Crook County: Racism and Injustice in America's Largest Criminal Court*, authority figures such as prosecutors and judges often view racial differences as synonymous to moral differences. Therefore, working-class defendants and defendants of color become so prevalent within the legal system that defendants become "stereotyped as 'degenerate, lazy and underserving' and therefore, are not afforded due process protections" (Clair & Woog, 2022, p. 13; Gonzalez Van Cleve, 2016).

While the degree to which certain laws are enforced is subject to prosecutors' decisions, the populations affected by these laws indicate that a power imbalance is present. Therefore, to fully understand the complexity of the power imbalance existing between authorities and subjects, one must consider the incentives authorities have in decision making.

IV. Relationship between Prosecutorial Practices and the Felony Murder Rule

Prosecutorial Incentives to Overcharge

Prosecutors understand a defendant will only accept a plea agreement in cases in which the shortened sentence of the plea agreement greatly outweighs the risks associated with going to trial (Guldorizzi, 1998). Therefore, prosecutors are incentivized to initially charge crimes as more severe providing prosecutors with "bargaining room" in the form of dropping charges (Caldwell, 2011). Negotiations during a plea agreement can include the dismissal of multiple charges in exchange for a guilty plea or even downgrading the original charge to something less severe in exchange for a guilty plea (*People v. Combs*, 2002). Mitchell Caldwell, a professor at Pepperdine University School of Law, elaborates on prosecutorial incentives to overcharge.

> "If our criminal justice system were trial-centered, prosecutors would only have reason to file charges on which they would likely secure through a conviction. However, because most criminal convictions are secured through plea negotiations, prosecutors have an incentive to file more serious charges than those supported by the evidence with the 'hope that a defendant will be risk adverse.' Furthermore, prosecutors lack any political incentives to refrain from overcharging because most communities want the state to be tough on crime" (Caldwell, 2011, p. 84).

The felony murder rule is one of the most severe charges an individual can be charged with. In some states, such as Illinois, the felony murder rule carries a potential sentence of 20 to 60 years in prison, or in some rare cases, life without parole (Lijtmaer, 2008). Therefore, generally speaking, all plea agreements will offer a sentence less than being sentenced under the felony murder rule, providing defendants charged under the felony murder rule with motive to accept a plea bargain

(Zacharias, 1998). While it is clear why a defendant would be eager to accept a plea bargain, it is less apparent as to why a prosecutor would be eager to offer a plea agreement, especially in cases involving violent crime, such as those under the felony murder rule.

Prosecutorial Incentives to Offer a Plea Bargain

Researcher John Pfaff studies the impact of prosecutorial discretion on rates of incarceration. Following data analysis, Pfaff discovered that in 1994 there was an increase in the number of prisoners incarcerated. Pfaff's data indicates that this increase is not due to rising crime rates but instead an increase in the rate at which prosecutors have filed charges, primarily against those of color (Pfaff, 2013). While prosecutor filing rates have increased, arrests, prison admissions per felony, and the length of time served has remained stagnant or fallen flat (Pfaff, 2013). Therefore, prosecutors' decision to increase the number of charges filed while arrest rates remained the same, indicates an attempt by prosecutors to charge more cases, not a response to more crimes occurring. Therefore, it is important to consider why a prosecutor would benefit from additional cases charged.

As of 2014, nearly 2400 district attorneys were elected to offices across 46 states (Arora, 2018). With the ability to decide who to charge and how severely, district attorneys, also known as chief prosecutors, are arguably one of the most important county elections to take place (Davis 2017, Starr 2015, Rehavi & Starr, 2014). Therefore, it is important to examine what drives constituents to vote for one candidate over another. According to researcher Chika Okafor, the answer can be found in prosecutors' response towards crime (Okafor, 2021). Okafor applies a variety of statistical modeling techniques towards datasets involving district attorney elections and U.S. public opinion on criminal punishment. Okafor discovered there is strong correlation

between the chance of a district attorney being elected and the more tough on crime a candidate is (Okafor, 2021). In fact, while studying the election cycles of 1986-2006, Okafor discovered that district attorney election effects decline as U.S. public opinion begins to shift demanding less punitive criminal punishments (Okafor, 2021). Additionally, Okafor discovered that in the years in which a district attorney is up for election or re-election, there is more people charged per capita as well as longer sentences per capita than during non-election years (Okafor, 2021). According to Okafor,

> "No such DA effects exist for arrest rates and crime rates, suggesting election effects and sentencing outcomes may be directly attributable to district attorney behavior and not to changes in criminal behavior, police presence, or the behavior of other elected officials. These DA election years effects on sentencing outcomes depend on county political ideology more than the ideology of the district attorney, with effects larger in Republican counties and in situations with contested DA elections" (Okafor, 2021 p.2).

Therefore, in counties with a higher Republican population or in which a district attorney is running opposed, there is an increase in the severity of sentencing outcomes as many constituents favor candidates who take a tough on crime policy approach (Okafor, 2021).

According to research conducted by Chika Okafor, Republican prosecutors and district attorneys are more likely to sentence an individual to a longer criminal sentence. However, this research also indicates that longer or more severe sentences do not decrease the number of crimes that occur at the county level (Okafor, 2021). Therefore, tough on crime policies appear to provide no marginal benefit in comparison to counties that do not take a tough on crime approach (Okafor, 2021). Instead, as crime rates remain the same, the only true difference between a republican and

liberal leaning county is the length of time an individual would be sentenced for a crime, and thus how tough on crime a prosecutor may appear to his constituents.

According to a study conducted by Caplow and Simon, how severe a prosecutor acts towards crime can be a key indicator of their political success. Research indicates that as the state's majority party becomes less confident in their ability to control the legislature, the state's prison admission rises (Caplow & Simon, 1999). Therefore, Caplow and Simon argue that this correlation indicates that politicians often deploy tough on crime policies during times of highly contested elections to remain in office (Caplow & Simon, 1999). In fact, according to Yale Law School Professor David Schleicher, prosecutors have no motive to reduce crime rates, "if you actually cared about crime rates, you would think to yourself, 'How should I allocate resources in order to reduce crime rates? That's what is going to get me reelected or not reelected, DA's have no incentives to do that'" (Schleicher, 2016; Lantigua-Williams, 2016 para. 15).

Beyond remaining in office, prosecutors have additional incentives to charge crimes more severely. The more severe a crime is, the greater the likelihood of an individual being sent to a state prison rather than a local county jail (Lantigua-Williams, 2016). According to Schleicher, prosecutors are often incentivized to charge a crime more severely, so the defendant goes to a state prison (Schleicher, 2016; Lantigua-Williams, 2016). By placing an individual in a state prison, county resources are not spent towards the defendant and thus a district attorney's budget remains unaffected.

The 2011 the California legislature was one of the first to pass legislation to increase local government's control over their budget. This legislation recodified select crimes to require defendants charged under those crimes to be sentenced to county jails rather than state prison therefore requiring local funding. As a result of this legislation, district attorneys began to charge

those crimes less often to preserve the county's budget (Lantigua-Williams, 2016). A similar scenario occurred in South Dakota following the enactment of criminal-justice reform legislation (Pfaff, 2017). An Urban Institute report discovered that "when certain low-level crimes were no longer eligible for lengthy sentences, prosecutions against crimes that were eligible for a lengthy sentence greatly increased" (Lantigua-Williams, 2016, para. 18). Therefore, in instances where a prosecutor has the legal justification to charge a crime more severely, evidence suggests they will do so (Trivedi & Gonzalez Van Cleve, 2020).

Furthermore, attorneys' discretionary behavior has been examined at the federal level as well. Since the 1990's, Pfaff has recognized an upward trend in the number of felony cases being prosecuted (Pfaff, 2013). According to Pfaff, this upward trend is correlated with prosecutorial discretion resulting in more cases being charged as felonies and for longer periods of time. According to Pfaff, "in 1994 about one every three arrests turned into a felony case, and by the end of the 2000s, it was two out of every three arrests… half of this increase in felony filings came from cases of misdemeanors being charged as felonies" (Pfaff, 2013, "Waylaid by a Metaphor"; Lantigua-Williams, 2016, para. 7). However, in some federal cases, prosecutorial discretion was not an option. According to a Department of Justice brief, "until 2010, federal prosecutors were required to pursue the most serious, readily provable charge in every case and for every defendant" (Lantigua-Williams, 2016 para 13). Therefore, even in federal cases in which a defendant may not have been responsible for the murder of another, a prosecutor may prosecute under the felony murder rule to remain in accordance with the Department of Justice.

V. Illinois' Use of the Felony Murder Rule

Transformation of Illinois' Interpretation of the Felony Murder Rule

The felony murder rule currently exists in 44 states' penal codes (Lijtmaer, 2008).[52] Each state has their own felony murder statute and rules for its application. I specifically examine Illinois and its use of the felony murder rule due to data availability and being home to the United States' largest criminal court (Gonzalez Van Cleve, 2016). Illinois established its first version of a felony murder statute in 1827 with other states to quickly follow by enacting their own versions of felony murder statutes (Houck, 1999). At this time, the felony murder rule was only applicable in cases where the court deemed the offense "reckless or negligent and with danger to human life" (Lijtmaer, 2008). However, prior to this declaration in 1961, the Illinois legislature launched an investigation to examine whether the felony murder rule has a place in its criminal code (Houck, 1999). Instead of eliminating its use, in 1997 the Illinois legislature referenced *People v Payne* to further broadened the scope of the proximate cause theory codifying Illinois' interpretation of the felony murder stating, "It is immaterial whether the killing in such a case is intentional or accidental or is committed by a confederate without the convenience of the defendant… or even by a third person trying to prevent the commission of the felony" (*People v. Hudson,* 1993). By declaring Illinois would follow the proximate cause theory, Illinois' interpretation of the felony murder rule became one of the broadest in the country (Lijtmaer, 2008).

The proximate cause theory argues that all defendants involved in the participation of a crime should be held responsible for any deaths that occur during the felony, including murders

[52] However, since 1829, only three states have eliminated their felony murder statutes: Hawaii, Kentucky and Michigan. Hawaii was the first of the three states to eliminate their felony murder statute. Hawaii argued that the participation in a felony crime in which someone is killed should not automatically equate to murder. Instead, Hawaii argues a prosecutor should be given the discretion to consider all extenuating circumstances and mitigating factors within the crime.

committed by another perpetrator (*People v. Lowery,* 1997). The Illinois Supreme Court has stated the felony murder rule "…includes deaths of innocent bystanders caused by third parties and even … the deaths of co-felons at the hands of police officers" (*People v. Klebanowski* 2006). Therefore, the defendant nor his accomplices need to kill someone to be charged with murder, instead they can be charged for murder in cases where their accomplice is shot by police (Gerber, 1999).

The proximate cause theory of the felony murder rule can be further examined in one commonly cited 2006 case from the Illinois Supreme Court, *People v Klebanowski* (Lijtmaer, 2008). In 2006, Robert Klebanowski agreed to drive his friend Robert Winters to downtown Chicago to commit a robbery (*People v. Klebanowski*, 2006). While Klebanowoski remained in the vehicle blocks away, Winters ran towards a parked car with a BB gun in hopes of robbing the driver. After giving his wallet to Winters, the man announced himself as a police officer and fired multiple shots killing Winters (*People v. Klebanowski*, 2006). Upon being interviewed, Robert Klebanowski admitted to knowing of the robbery and acting as the getaway driver. Therefore, the court charged him under Illinois' felony murder rule stating he had aided and abetted Winters in the robbery (*People v. Klebanowski*, 2006). While the court acknowledged Klebanowski was blocks away from the scene of the crime, and had no intent of a death occurring, he was sentenced to twenty years in prison under a first-degree murder conviction for the death of his accomplice (*People v. Klebanowski*, 2006).

Upon appeal, Klebanowski argued he had no ability to know that Winter was going to be shot. The court rejected the appeal stating that Winter's death was a "direct and foreseeable consequence of the armed robbery" (*People v. Klebanowski*, 2006). However, others have disagreed with the court's ruling in the Klebanowski case. Illinois Judge Mary Ann McMorrow

stated she found the proximate cause theory too egregious for this case. Judge McMorrow stated while she understood Klebanowski did provide transportation to Winters, he did not set in motion a series of events ultimately resulting in Winter's death and therefore Winter's death was unforeseeable (*People v. Klebanowski*, 2006).

Illinois' interpretation of the felony murder rule has continued to expand up until the 2021 passage of the Illinois Safety, Accountability, Fairness and Equity-Today (SAFE-T) Act (Reichert et al., 2015). The SAFE-T Act focused primarily on the Illinois criminal justice system including areas such as policing and sentencing (Reichert et al., 2015). The SAFE-T Act also limits Illinois use of the felony murder rule to the agency theory rather than the proximate cause theory; therefore, severely decreasing the scope of the felony murder rule in Illinois (Reichert et al., 2015). The new language in the Illinois criminal code reads as follows:

> "A person who kills an individual without lawful jurisdiction commits first degree murder if, he or she, acting alone or with one or more participants, commits or attempts to commit a forceable felony other than second degree murder, and in the course of or in furtherance of such crime or flight therefrom, he or she or another participant causes the death of a person" (Restore Justice Illinois, 2021).

Therefore, as of July 1, 2021, individuals in Illinois can no longer be held liable for the deaths of third parties such as in a case where two defendants are attempting to commit a robbery and one of them is killed by police (Reichert et al., 2015).

VI. Justice or Efficiency? An Examination of Cook County's Prosecutors

Cook County Prosecutors' Interest in Plea Bargaining

Cook County has been home to calls for criminal justice reform for years. From 1980 to 1990, Jon Burge committed crimes against 120 Black men in Chicago (Gonzalez Van Cleve, 2016). While restrained, Burge would cover each man's face with a bag. He would then inflict severe burns on each man with the use of a cattle prod (Gonzalez Van Cleve, 2016). Following the burning, Burge would shout racial slurs at each man before electrocuting them (Gonzalez Van Cleve, 2016). Burge was never charged. Why would such a horrific crime go unprosecuted one may ask, the answer: Jon Burge was a commander in the Chicago Police Department (Trivedi & Gonzalez Van Cleve, 2020). As a commander, Burge tortured hundreds of Black men, only stopping when they confessed to a crime. While the Cook County States' Attorney's Office was put in charge of the case, they did not proceed with any charges against Burge; rather, they continued to prosecute each of Burge's victims (Gonzalez Van Cleve, 2016). While Burge had tortured each of these men into a confession, prosecutors kept the torture a secret, knowing the torture was illegal and if public, would dismantle their case (Gonzalez Van Cleve, 2016).

According to former Supreme Court Justice, Robert Jackson, prosecutors today have, "the most control over life, liberty and reputation than any other person in America" (Pfaff, 2017). Therefore, under the law, prosecutors are provided with the discretion to make decisions regarding whom to charge, what cases to charge, how severely to charge, and how many charges to impose for the crime (Caldwell, 2011). Their vast discretionary power has become a topic of scholarly interest as the United States continues to battle rising rates of mass incarceration. New research indicates that rising incarceration rates are likely not the result of police but instead of prosecutorial abuse (Pfaff, 2017). In the article, "To Serve and Protect Each Other: How Police-

Prosecutor Codependence Enables Police Misconduct," the authors Somil Trivedi and Nicole Gonzalez Van Cleve argue that the prosecutors have an incentive to keep the abuse a secret and prosecute each crime: to reap the benefits of high conviction rates (Trivedi & Gonzalez Van Cleve, 2020).

While courts often act as a medium for justice to victims and their family members, they are also the arena prosecutors battle to increase their own conviction statistics. High conviction rates benefit the prosecutor's career in a multitude of ways. First, high conviction rates are often a key statistic looked at by the State's Attorney's Office in granting a promotion to a prosecutor (Trivedi & Gonzalez Van Cleve, 2020). Therefore, the higher the conviction rate, the higher the chance of being promoted which often comes along with a higher salary (Trivedi & Gonzalez Van Cleve, 2020). Author, Nicole Gonzalez Van Cleve, studied this prosecutorial incentive while working as a law-clerk in the Cook County courthouse. In her book, *Crook County*, Gonzalez Van Cleve argues the crooks are not those on trial but those involved in the judicial system including the prosecutors, judges and defense attorneys (Gonzalez Van Cleve, 2016). Gonzalez Van Cleve argues prosecutors are not concerned with the defendant's due process rights but in prosecuting the highest number of cases in order to be seen as "efficient." What is the fastest way of disposing of a case one may ask? The answer: to plea bargain (Gonzalez Van Cleve, 2016; Caldwell, 2011).

Upon spending several months studying interactions between prosecutors and defendants at the Cook County Courthouse, Gonzalez Van Cleve emphasizes the personal motives behind plea bargaining.

> "Not surprisingly, plea bargains rather than trials define this proverbial machine of efficient justice and judges and prosecutors to pride themselves on efficiency. Adjacent courts

> compete to achieve the most dispositions or completed cases in day. The sheriff's officers act as go-between to update judges and the courtroom on which court is "winning." One court watcher noted a judge screaming "lets go!" and "do something!" at his colleagues when there was a brief pause in a stream of plea bargains. Achieving a "dispose" or a completed case, is the chief indicator of this work ethic, with little regard to the people who represent the disposed cases in the system. Prosecutors, specifically when surveyed about the qualities and values inspiring disrespect in the Office of the State Attorney, overwhelmingly reported laziness in a fellow prosecutor as the worst quality, even worse than incompetence" (Gonzalez Van Cleve, 2016, p. 58).

Beyond personal incentives to induce a plea bargain, such as a higher chance of a promotion or reputation as hard working, there are political motivations for a prosecutor to induce a plea agreement as well. Due to the War on Drugs and War on Crime from the 1970s to the 1990, many Americans associate tough on crime policies as synonymous to safety and order within America (Becket, 1997). Therefore, as an elected official, prosecutors are held responsible to appear tough on crime to be reelected (Pfaff, 2017).

Prosecutors can appear tough on crime through their conviction rates and the severity of the sentence they charge (Pfaff, 2017; Caldwell, 2011). Therefore, prosecutors may increase the severity of a crime to induce a plea bargain resulting in a higher conviction rate (Okafor, 2021). According to the National Judicial Reporting Program data, in counties that have competitive District Attorney elections, plea bargaining makes up 95 percent of convictions (Okafor, 2021). Additionally, research indicates that as the majority party's control of the legislature becomes weaker, state prison admission rates rise (Okafor, 2021). Therefore, while tough on crime policies play a significant role in the election of a prosecutor, these policies are not effective in deterring

crime. In his research, John Pfaff found that an increase in sentence length and severity has been found to have no impact on arrest rates nor crime deterrence (Pfaff, 2017). Therefore, one may conclude that the main purpose behind stringent sentencing practices is to achieve personal incentives rather than prevent crime from occurring.

Racial Prejudice within the Cook County Court System

Researchers argue that working-class defendants of color often struggle to establish intimate trusting relationships with their lawyers resulting in high rates of coercion. In fact, due to the long-lasting prejudicial relationships present in the criminal justice system, researchers argue that present attorney client relationships can be considered another representation of racial and class discrimination as many defendants of color are less likely to receive a non-punitive sentence as well as are more likely to receive inadequate defense attorneys and face coercive plea-bargaining tactics (Becket, 1997).

According to researcher, Nicole Gonzalez Van Cleve, eighty-four percent of Cook County's state attorneys are white in tandem with 69 percent of public defenders and 74 percent of trial court judges (Gonzalez Van Cleve, 2016). In contrast to the majority white authority figures, Black and Latino individuals made up 80.2% of felony defendants (Gonzalez Van Cleve, 2016). In order to further research this disparity, Nicole Gonzalez Van Cleve conducted 104 interviews with Cook County judges, prosecutors, public defenders and private attorneys. During these interviews, Van Cleve asked each member of the legal system the same question, "do you believe that defendants are treated fairly within the court regardless of their race or class background?" According to interview notes taken during these interactions, while public defenders acknowledged the

disparities, judges and prosecutors often answered the question with "awkward silence and even hostility" (Gonzalez Van Cleve, 2016, p. 55).

While the data is clear that felony defendants are disproportionately Black and Latino, the Cook County court system is representative of a much larger theme of injustice. While some argue that Black and Latino individuals are arrested for felony crimes at a much higher rate because they commit the crimes more often, Van Cleve argues this is not the case (Gonzalez Van Cleve, 2016). Instead, Van Cleve argues Cook County's judicial system is an example of how racism can become fostered in workplace culture, social processes and other institutional norms (Gonzalez Van Cleve, 2016). When asked about this difference in felony filings, Van Cleve states, "of course no one could deny that defendants were disproportionately Black and Latino but for the judges and prosecutors the uniquity of racial divisions was minimized and ignored; many asserted that these issues failed to register in anyone's thought processes and other refused to discuss the matter entirely" (Gonzalez Van Cleve, 2016, p. 55).

The racial differences present in sentencing and felony filings is one that cannot be ignored. According to the United States Sentencing Commission, "Black men who commit the same crimes as white men receive federal prison sentences that are, on average, nearly 20 percent longer" (United States Sentencing Commission, 2017). Additionally, in 2014, the University of Michigan Law School found that with "all other factors being equal, black offenders were 75 percent more likely to face a charge carrying a mandatory minimum sentence than a white offender who committed the same crime" (Ingraham, 2017, para. 9; Rehavi & Starr, 2014). There are significant racial disparities present within the criminal justice system, especially in the filing of felony charges. However, what has often been understudied by researchers is the role that prosecutorial and judicial discretion plays in these statistics (Pfaff, 2017).

Data on the Felony Murder Rule in Cook County

As America's largest criminal court system, Cook County, Illinois is often the location of research on America's criminal justice system. In her unpublished work, Kat Albrecht researches the impact of the felony murder rule on Cook County, Illinois. Utilizing the Cook County Open Data Portal, Albrecht reviewed the cases charged under Illinois' felony murder rule from 2010 to August 2020 (Albrecht 2020). Albrecht found that there were significant racial disparities in the number of cases charged under the felony murder rule in Cook County, Illinois (Albrecht, 2022). Albrecht found that in 74.8% of initiated cases charged under the felony murder rule the defendant was Black while only in 7.8% of cases the defendant was white (Albrecht, 2022). Additionally, Albrecht found that roughly 59% of felony murder charges do not reach the disposition stage and 88% of charges are dropped entirely (Albrecht, 2022). Therefore, the majority of cases charged under the felony murder rule do not make it to the final stage of prosecution and result in a sentence, instead they are removed from the system by being dropped or the defendant accepting a plea bargain (Albrecht, 2022).

I began this study wondering as to why the Cook County judicial system continues to prosecute under the controversial felony murder rule if most of the cases do not make it to the disposition stage. I theorize that cases could be charged under the felony murder rule, with the potential for a more severe sentence, in order to entice the defendant to take a plea bargain rather than risk a lengthy sentence under the felony murder rule. According to Douglas Lieb, under the "existing doctrine of vindictive prosecution", prosecutors often use "charging discretion aggressively to pressure defendants into pleading guilty" (Lieb, 2014 para. 5). In cases involving the felony murder rule, the potential post-conviction sentence is much more severe; therefore, it is much more difficult for a defendant to justify the chance of taking the case to trial instead of

pleading guilty to the lower-level underlying felony. With 59% of cases not making it to the disposition stage, it is likely many of these cases are being pleaded out prior to the disposition stage, the question is, how many? My research design will test the following hypothesis: *In cases in which the felony murder rule is the most severe charge, the defendant will plead guilty to the lower-level offense charged concurrently with the felony murder rule, rather than chancing a lengthy conviction in a trial.*

Design and Methodology

Research Questions

Utilizing the Cook County Open Data portal, I hope to answer three research questions to understand the latent functions of the felony murder rule on society: (1) How prevalent are felony murder charges in Cook County? (2) What are the charge outcomes in cases in which there is at least one felony murder charge? (3) Does the outcome of a felony murder rule charge vary by race and ethnicity? This research serves to not only provides additional clarity on the societal effects of the felony murder rule, but also to investigate larger patterns of racial and socioeconomic inequality present within our criminal justice system.

Definition of Parameters

Statutory Context

According to the Illinois criminal code, a case involving felony murder can be charged under three felony murder statutes: 9-1(a)(1), 9-1(a)(2), and 9-1(a)(3). The statutes read as follows,

> "a person who kills an individual without lawful justification commits first degree murder if, in performing the act which causes the death: (1) he or she either intends to kill or do

> great bodily harm the that individual or another, or knows that such acts will cause death to that individual or another; or (2) he or she knows that such acts create a strong probability of death or great bodily harm to that individual or another; or (3) he or she, acting alone or with one or more participants, commits a forcible felony other than second degree murder, and in the course of or in furtherance of such crime or flight therefrom, he or she or another participant causes the death of a person" (Illinois General Assembly, n.d).

The felony murder rule is charged under 9-1(a)(3) as the language "or another participant causes the death of a person" can be seen as the legal justification for the proximate cause theory of the felony murder rule.

Data Compilation

Cook County is home to the largest criminal court and unified court system within the United States. It represents the largest population in Illinois, encompassing 150 cities, towns and villages and roughly 2,705,994 residents ("Cook County's Criminal Justice System", 2019). Perhaps most importantly, Cook County is one of the few jurisdictions in the entire country that differentiates cases charged as felony murder with those charged under the felony murder rule. Analysis of the felony murder rule is contingent on the ability to recognize which cases were in fact involving the commission of a felony offense and those in which a third party was charged for felony murder while not acting as the shooter. The Cook County Open Data Portal (CCODP) provides researchers with case-level information on every adult felony case brought forth by the Illinois State Attorney since 2010, its data encompasses roughly 400,000 defendants and 1,000,000 charges (Albrecht, 2022).

Utilizing the Cook County Open Data Portal, I downloaded case-level information from three steps in the criminal processing of an individual: initiation, disposition, and sentencing. While the available data did include case information from the intake stage as well, I was unable to use this data as it does not include specific statute numbers permitting differentiation between cases involving the felony murder rule and other felony murder cases. Additionally, because all cases involving the felony murder rule are felony level cases, they are not eligible for diversion; therefore, I did not use the diversion dataset as well. By utilizing data from each step in the criminal processing of an individual, I was able to examine how initial charges evolved from arrest to sentencing within the Cook County Court system.

The initiation phase is the processes of making an arrest into a formal case within the court system. This stage includes all arrests presented to the State Attorney's Office. Therefore, the initiation stage includes all charges filed against a defendant with additional details such as, the case number, statute numbers and personally identifiable characteristics such as race or gender. Within the initiation dataset, each row represents one charge filed against a defendant; therefore, I was able to differentiate between charges for felony murder and charges under the felony murder rule by the statute charged (i.e., 720 5 9-1(a)(3). This dataset does not include data involving juveniles or civil proceedings ("How to Read the Open Data," n.d.).

The second phase is the disposition phase. During the disposition phase, facts of a case are presented, and a final verdict is determined. Therefore, the disposition phase occurs after there is a preliminary prosecutorial result of a case. During this phase, defendants enter into a plea of guilty or not guilty. A guilty plea will result in immediately going to step three: sentencing, unless it is a low-level non-violent offense eligible for participation in a criminal diversion program. However, all cases charged under felony murder are not eligible for a diversion program due to the violent

nature and severity of the crime. If a defendant pleads not guilty, they will face a bench or jury trial. Depending on the outcome of this trial, the defendant will either exit the system being found not guilty or proceed to the sentencing stage ("How to Read the Open Data," n.d.).

The final phase of a criminal proceeding is the sentencing stage. The sentencing stage occurs after a verdict has been determined and therefore excludes cases dismissed at the disposition phase. The sentencing stage includes a sentencing hearing in which a judge formulates the conditions and length of a sentence. Potential sentences include prison, probation, jail, conditional discharge, and release with supervision ("How to Read the Open Data," n.d.). Each individual row in the sentencing dataset represents one charge that has been disposed of and thus given a sentence ("How to Read the Open Data," n.d.). Therefore, utilizing this dataset, I am able to examine how many charges initially charged in the initiation stage result in a criminal sentence in cases involving the felony murder rule.

Research Design

Overview

The most widely cited statistics involving the felony murder rule are from a 2016 study involving the use of national FBI crime data therefore, making it very difficult to understand the impact of the felony murder rule on smaller jurisdictions. This research specifically found that the presence of the felony murder rule does not encourage deterrence, however, it did not examine what relationship, if any, the felony murder rule has to the inducement of plea agreements. In order to address both of these limitations, I have conducted my own analysis of the felony murder rule utilizing publicly available court data from the Cook County Government's Open Data Portal. With the available data, I ran multiple regressions utilizing R software to understand if a

relationship exists between cases charged under the felony murder rule and the likelihood of a plea agreement.

Data Structure

To analyze the data, I combined the three datasets (initiation, sentencing and disposition) to track how a case may change over time and when, if any, plea agreements occur. To begin the analyses, I first filtered by statute to retain a subset of data that includes only those cases in which a participant had at least one charge under a felony murder statute. According to the Illinois criminal code, these include statutes: 720 5 9-1(a)(1), 720 5 9-1(a)(2), 720 5 9-1(a)(3). Recall, statute 720 5 9-1(a)(3) encompasses all felony murder charges charged under the felony murder rule as the Illinois criminal code requires those charged under 720 5 9-1(a)(3) to be charged when "he or she, acting alone or with one or more participants, commits or attempts to commit a forcible felony other than second degree murder, and in the course of or in the furtherance of such crime or flight therefrom, he or she or another participant causes the death of a person" (Illinois General Assembly, n.d.).

In combining the three datasets into one file, I retained and renamed a subset of relevant variables at each phase of the criminal proceedings to indicate if the observations occurred at the initiation, disposition or sentencing stage. Most of the analyses retained data's original charge-level formatting. That is, in the data, one participant can and usually does have multiple rows corresponding to multiple charges – even many of the same type (e.g., multiple charges corresponding to the felony murder rule for the same participant). To answer some questions, the data were further transformed into a participant-level dataset (i.e., one row per participant) by filtering on each participant's sole designated "primary charge" (and then removing any

duplicates). By creating a participant-level dataset, it became possible to count the number of unique participants facing felony murder charges, including those under the felony murder rule, instead of the number of charges.

Felony Murder Rule Indicator

For most analyses, we relied on either a count variable of a participant's number of felony murder rule charges or a subsequent dummy variable indicating the participant either had zero ("0") or at least one ("1") felony murder rule charge. To create these, I began by tallying up the number of felony murder charges each unique participant has been charged with. While an individual may be charged with multiple charges, that individual's participant ID is unique to the individual and therefore will be listed for each charge. Therefore, I grouped our data by the unique participant ID and tallied the number of rows containing a felony murder rule charge within participant grouping prior to creating a participant-level dataset. From here, I filtered by statute number to examine how many felony murder cases were dropped or decreased from the initiation phase to the sentencing phase by creating a count for each statute number at each of the three stages: initiation, disposition, and sentencing.

SAFE-T Act

For all analyses involving both participant-level and charge-level datasets, I filtered the data to account for recent changes in legislation that may affect how an individual is charged by prosecutors. In response to demands for criminal justice reform within Cook County, Illinois, the SAFE-T Act was enacted on January 22, 2021 (Reichert et al., 2015). The SAFE-T Act limited the scope of the felony murder rule from the proximate cause theory to the agency theory. Therefore, to minimize any confounding effects of this policy change, I filtered the data to include only cases

occurring prior to July 1, 2021, or the date in which this legislation went into effect, using a dummy variable created to indicate whether the date the charge information was received at initiation occurred prior to July 1, 2021. By removing those with received dates on or after July 1, 2021, the total number of participants with felony murder rule charges dropped (from 1,311 to 1,275; described in more detail in Tables 4 & 5 below).

Race/Ethnicity

Finally, with the participant-level dataset created and filtered prior to July 1, 2021, I was able to conduct further analysis by examining demographic trends in participants such as race and ethnicity. Therefore, I was not only able to examine how many participants were charged with felony murder, including those charged with the felony murder rule, but also understand if race affects the likelihood of an individual being charged with the felony murder rule.

Stickiness of Charges

I was also to examine the "stickiness of charges" or tendency for a charge to remain from the initiation phase to the sentencing phase. This analysis required using the combined charge-level dataset comprised of the initiation, disposition and sentencing data. As noted earlier, the charge-level dataset is organized by the number of charges per participant, with each row containing a unique charge, and where each participant typically has a number of rows corresponding to each of their specific charges in a given case. Charge-level data allow us to examine outcomes for felony murder charges – and for the additional charges – in cases where an individual has a felony murder charge. For these analyses, I filtered the charge-level data to include all charges for those participants who had at least one felony murder rule charge (using our participant-level dummy indicator of the presence of at least one felony murder rule charge described above). By keeping all charges – not just felony murder rule charges – I was able to

examine what happens to the additional charges in cases where an individual has a felony murder rule charge. For example, I could examine whether someone is more likely to plead guilty to the felony murder rule to have multiple additional charges dropped, or whether participants charged with the felony murder rule routinely plead guilty to lesser (non-felony murder rule) charges.

Additionally, this charge-level dataset permitted examination of trends in initial prosecutorial charging decisions, such as how often the felony murder rule (i.e., 9-1(a)(3)) is charged in conjunction with other felony murder charges (i.e., 9-1(a)(1)" or 9-1(a)(2)), as well as how often the felony murder rule is charged as the most severe crime. Due to my interest in understanding the purpose of the felony murder rule, this dataset allowed me to generate descriptive statistics that are specifically relevant to my original hypothesis, which was: *In cases in which the felony murder rule is the most severe charge, the defendant will plead guilty to the lower-level offense charged concurrently with the felony murder rule, rather than taking either offense to trial.*

Finally, like the participant-level dataset, I was able to conduct further analysis by examining racial and ethnic demographic trends in the charging of offenses (as opposed to the charging of individuals). Therefore, I was able to understand if race and ethnicity affects the number of charges brought forth by prosecutors as well as how race and ethnicity affects the outcome of each charge (e.g. plead guilty; found not guilty in trial; *nolle prosecution*).

Findings

Summary of Findings

Following the completion of my research, I was able to answer my three research questions: (1) How prevalent are felony murder charges in Cook County? (2) What are the charge outcomes in cases in which there is at least one felony murder charge; and (3) Does the outcome of a felony murder rule charge vary by race and ethnicity?

Scholars argue that roughly 90 to 95 percent of all state and federal court cases are resolved of through plea bargaining (Bureau of Justice Statistics, 2005; Flanagan and Maguire, 1990). Therefore, due to the prevalence of plea bargaining within the criminal justice system, I expected the majority of cases charged under the felony murder rule to result in a defendant accepting a plea of guilty to a lower-level offense to avoid the chance of a severe sentence under the felony murder rule; however, this was not always the case.

Data analysis confirmed that in cases in which a felony murder rule charge was the most serious, individuals were more likely to plead guilty to lower-level offenses than the felony murder rule. However, this occurred in a small subset of cases. Instead, the overwhelming majority of defendants charged under the felony murder rule had their felony murder rule charged dropped; and of those not dropped, the defendant was more likely to receive a non-guilty verdict than a guilty verdict. Therefore, prosecutors are bringing forth thousands of felony murder rule charges with a very low conviction rate. The findings of this research beg the question, what is the function of the felony murder rule in the criminal justice system? Evidence suggests that its use is not about upholding justice. Instead, it likely serves a much larger purpose- the ability to manipulate or coerce people's decision to plea bargain with respect to other lower-level charge decisions that are more likely to stick.

Research Question (1): Prevalence of FMR Charges in Cook County

In the original charge-level dataset, prior to any filtering, there were a total of 1,041,304 charges brought forth in Cook County Illinois between 2010 to 2021. Of those 1,041,304 charges, 34,919 were felony-murder charges (9-1(a)(1), 9-1(a)(2), 9-1(a)(3); see TABLE 1).

TABLE 1: Initiation: Frequency of Each Felony Murder Statute

Statute Charged[1]	Number of Charges	Percent
9-1(a)(1)	11872	0.3399868
9-1(a)(2)	11713	0.3354334
9-1(a)(3)	11334	0.3245797

[1] **Cases charged under the Felony Murder Rule are charged under statute 9-1(a)(3)**

Of these 34,919 felony-murder charges, approximately 25,932 charges were filed against a participant who had 1 or more felony murder rule charges and one-third (11,334) were felony murder rule charges under statute 9-1(a)(3). In fact, of the nearly 35,000 total felony murder charges at initiation, nearly three-quarters (25,932 / 34,919 = .74) are associated with a participant who has at least one felony murder rule charge before July 1, 2021 (see FIGURE 1). It is important to note that while there are 11,334 felony murder rule charges, there are not 11,334 individuals charged under the felony murder rule. Charges do not equal participants (see FIGURE 1).

As expected, being charged with felony murder is a relatively rare occurrence as the crime of murder itself is rare. While rare, the number of felony murder rule charges (9-1(a)(3)) still make up roughly 43% or 11,134 charges of the 25, 932 felony murder charges. However, this does not mean that each felony murder charge (9-1(a)(1), 9-1(a)(2), 9-1(a)(3)) is charged exclusively. Because multiple charges can be assigned to an individual, many individuals are concurrently charged with multiple felony murder charges, felony murder rule charges, and lower-level offenses.

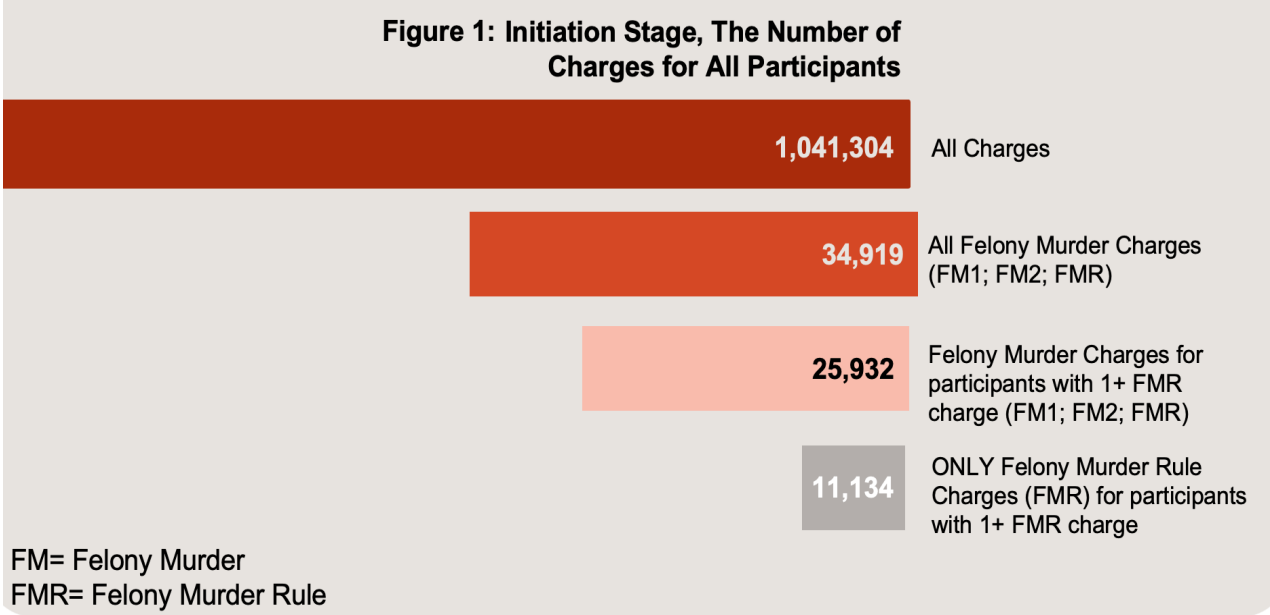


Table 2 also supports the finding that a felony murder charge is rarely charged exclusively. Table 2 indicates that it is much more common for a prosecutor to charge multiple felony murder statutes in a case including 9-1(a)(1) and the felony murder rule, 9-1(a)(3) along with additional lower-level charges (e.g. burglary). In fact, individuals can be charged with hundreds of felony murder rule charges in addition to other felony murder or lower-level offenses. Table 2 specifically demonstrates several egregious examples in which four individuals were charged with 200+ felony murder rule charges each.

Additional research should be performed to understand how an individual can be sentenced for hundreds of felony murder rule charges. Research should focus on answering if multiple charges are a result of prosecutorial charging decisions or if they were reasonably charged in cases in which an individual was present at a crime where 294 people died. I attempted to examine these cases involving hundreds of felony murder rule charges; however, the Cook County Open Data portal does not provide access to the individual's first or last name which is necessary to locate a specific case file.

TABLE 2: Initiation: Number of Individuals per Felony Murder Rule Charge Count		
Number of FMR Charges[1]	Number of Individuals	Percent
0	383466	0.996592831692
1	175	0.000454808889
2	184	0.000478199061
3	175	0.000454808889
4	177	0.000460006705
5	26	0.000067571606
6	163	0.000423621994
7	15	0.000038983619
8	61	0.000158533384
9	57	0.000148137753
10	13	0.000033785803
11	3	0.000007796724
12	74	0.000192319187
14	11	0.000028587987
15	14	0.000036384711
16	12	0.000031186895
18	37	0.000096159594
20	11	0.000028587987
21	14	0.000036384711
24	17	0.000044181435
27	4	0.000010395632
28	4	0.000010395632
30	10	0.000025989079
32	4	0.000010395632
33	1	0.000002598908
36	10	0.000025989079
38	1	0.000002598908
39	1	0.000002598908
40	1	0.000002598908
42	2	0.000005197816
43	2	0.000005197816
45	3	0.000007796724
48	1	0.000002598908
54	3	0.000007796724
56	1	0.000002598908
57	2	0.000005197816
60	6	0.000015593448
64	1	0.000002598908
66	6	0.000015593448
72	2	0.000005197816
78	1	0.000002598908
80	1	0.000002598908
91	1	0.000002598908
217	1	0.000002598908
288	1	0.000002598908
294	2	0.000005197816

[1] **Participant-level datafile created by filtering on primary charge (after creating an indicator of the presence of an FMR charge), removing duplicates, and removing cases that occurred after July 1, 2021.**

Table 3 contains 37,460 total charges initiated for participants with at least one FMR charge (before 7/1/2021). Of those charges, 11,138 are felony murder rule charges (9-1(a)(3)), 14,794 are felony murder charges (9-1(a)(1), 9-1(a)(2)) and 11,526 are "other" charges (e.g. 8-4(18-4(a)(6)). These 37k total charges were initiated for the 1,275 participants with at least one FMR charge. Of these 1,275 participants with an FMR charge, 95% (1,210/1,275 = .95) also had at least one FM1 or FM2 charge. It is quite rare for a participant to be charged with the felony murder rule in the absence of other felony murder charges.

TABLE 3: Number of Felony Murder Charges (9-1(a)(1-3)) in Cases with at Least One Felony Murder Rule Charge (9-1(a)(1))

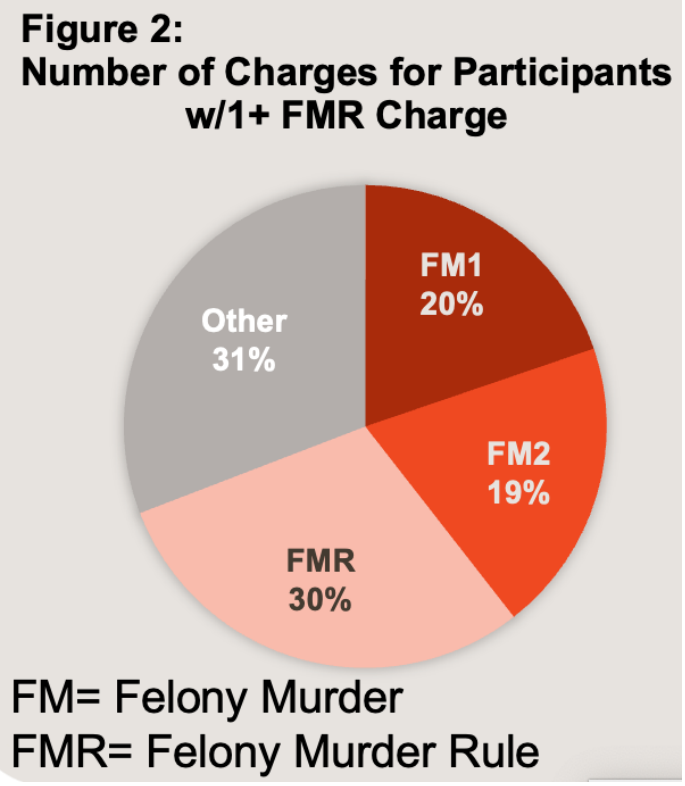
Felony Murder Type[1]	Number of Charges	Percent	Valid Percent
FM1	7411	0.19783769354	0.1978483
FM2	7383	0.19709022958	0.1971008
FMR	11138	0.29733048585	0.2973464
Other	11526	0.30768820075	0.3077046
NA	2	0.00005339028	NA
Total	37460	1.00000000000	1.0000000

[1] **Data are from all cases in Cook County between 2010 and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR, or 9-1(a)(3)) charge. FM1 & FM2 indicate charges under statutes 9-1(a)(1) & 9-1(a)(2), respectively. **

Figure 2 provides a visual break-down of the 37,460 total charges (see TABLE 3) initiated for participants with at least one FMR charge before 7/1/2021. Of the 37,460 total charges in cases with at least one felony murder rule charge, each of the three felony murders statutes make up roughly 70% of these charges, while the other 30% are "other" charges (e.g. 8-4(18-4(a)(6)).

It appears that statute 9-1(a)(3) or the FMR is charged slightly more often than traditional murder statutes 9-1(a)(1) or FM1 and 9-1(a)(2) or FM2 as the number of FMR charges make up 30% of total charges for participants with at least one felony murder rule charge.

While each of these three charges are charged at close proportions, it does not mean that these charges are charged exclusively. Of the 1,275 participants with at least one FMR charge, 95% (1,210/1,275 = .95) had at least one FM1 or FM2 charge as well. It is rare for a participant to be charged with the felony murder rule in the absence of other felony murder charges. Therefore, the near ubiquitous prevalence of co-occurring FMR and felony murder rule charges makes it challenging to test the key hypothesis that people will plea down from FMR charges to lesser charges – because nearly all of those facing an FMR charge(s) also are facing other felony murder charges.



Due to the prevalence of multiple felony-murder rule charges per individual, it is also important to examine this data on a participant level to understand how many participants these charges makeup. To begin examining participant level data, it is important to filter the participant-level data to include only data charged prior to the implementation of the SAFE-T Act taking place on July 1, 2021, for our data to remain comparable and consistent.

After removing those with received dates on or after July 1, 2021, the total number of participants dropped from 383,466 to 374,367 participants, whereas the number of participants with at least one felony murder rule charge dropped from n=1311 to n=1,275 participants.

Recall, there were 81 participants with felony murder rule charges in 2021 and 2022 (i.e., on or after 1/1/2021), but only 36 participants with such charges after July 1, 2021. This means that 45 participants were charged with felony murder rule in the first six months of 2021 prior to the more restrictive definition taking effect. After the law change, 36 participants were charged with the felony murder rule in the subsequent six months (approximately – the most recent received date in the data is 01/03/2022). In future research, it may be interesting to use charge-level data to see how many felony murder rule charges occur in each six-month increment in the data (e.g., before and after the law change).

TABLE 4: # of Participants with 1+ FMR Charge

FMR Charge Present[1]	Number of Individuals	Percent
0	383466	0.996592832
1	1311	0.003407168

[1] **Table 4 includes a count of participants with at least one felony murder rule charge without filtering by recieve date. Table 4 was created using a participant-level datafile created by filtering on primary charge (after creating an indicator of the presence of an FMR charge), and removing duplicates.**

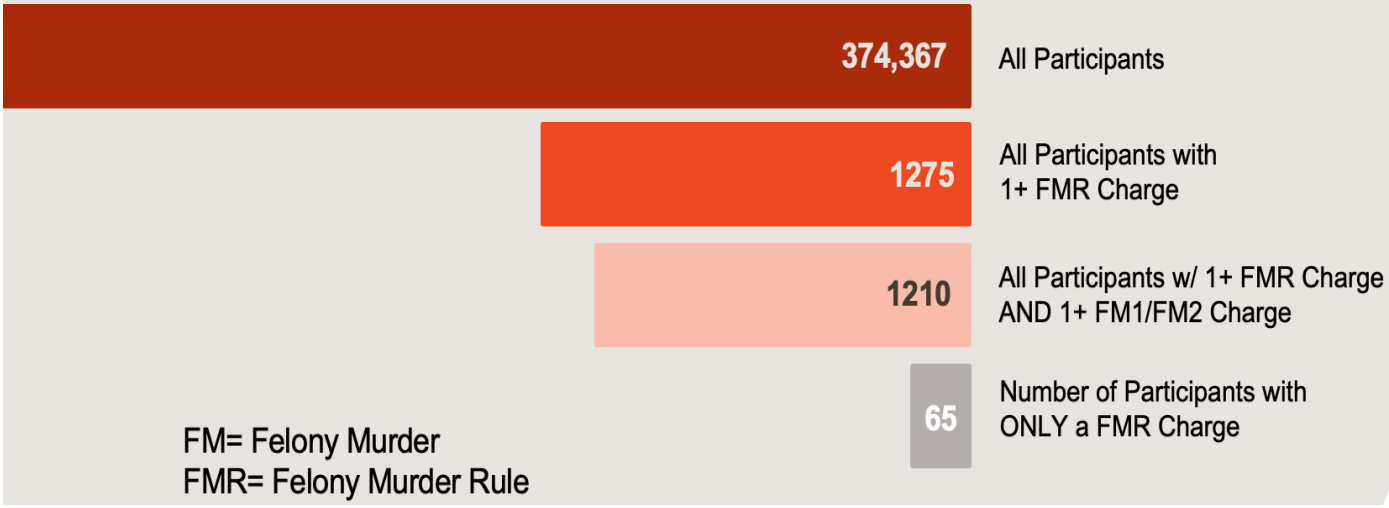
TABLE 5: # of Participants with 1+ FMR Charge- Filtered with Respect to Recieved Date

FMR Charge Present[1]	Number of Individuals	Percent
0	374367	0.996605811
1	1275	0.003394189

[1] **Table 5 includes a count of participants with at least one felony murder rule charge by filtering out individuals with felony murder rule charges following the implementation of the SAFE-T Act, or July 1, 2021. Table 5 was created using a participant-level datafile created by filtering on primary charge (after creating an indicator of the presence of an FMR charge), and removing duplicates.**

With the correctly filtered dataset, participant level data was able to be analyzed (see FIGURE 3). Of the 1275 participants with at least 1+FMR charge 1210 participants had at least one FM1 or FM2 charge as well as an FMR charge. Therefore, there are n=65 participants who have a FMR charge and *no other* felony murder charges (FM1 or FM2).

Figure 3: # of Participants at Initiation Stage



In sum, these 65 participants have n=690 total charges. Of those 690 total charges, n=219 charges are felony murder rule charges, or the most severe charge in these cases, and n=471 are non-FMR charges. With only 65 of 1275 participants being charged with the felony murder rule as the most severe charge (See FIGURE 3) one may assume that the times in which the FMR is charged are very rare. While rare, it is still important to consider, were these 65 participants especially likely to "plea down" to other (lesser) non-FMR charges? To answer this, we must examine research question 2.

Research Question (2): Charge Outcomes in Cases with FMR charges?

Table 6 shows the outcome of felony murder rule cases and non-felony murder rule cases at the disposition stage. Of those 219 FMR charges, only five resulted in a guilty plea during the disposition stage (see TABLE 6). At first glance, this is somewhat surprising given how common plea outcomes are for most felony charges. However, this data show that guilty pleas are quite uncommon in all felony murder cases, perhaps due to the severity of the potential sentence.

TABLE 6: Disposition: Outcome of Non-FMR & FMR Charges in Cases with a Felony Murder Rule Charge & No FM1/FM2 Charges

Outcome[1]	Non-FMR	FMR
Found or Verdict Guilty	30 (6.37%)	12 (5.48%)
Found or Verdict Not Guilty	35 (7.43%)	24 (10.96%)
Nolle Prosecution	206 (43.74%)	110 (50.23%)
Plea Guilty	24 (5.10%)	5 (2.28%)
NA	176 (37.37%)	68 (31.05%)
Total	471 (100.00%)	219 (100.00%)

[1] **Data are from all cases in Cook County between X date and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data from initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR) charge and no other co-occuring felony murder (9-1(a)(1) or 9-1(a)(2)) charges.**

Of the 471 lower-level charges that accompanied felony murder rule charge as the most serious charge in these cases, only 24 guilty pleas occurred. Even though a relatively small number of charges resulted in a guilty plea in these cases, the results show a sizeable difference in the likelihood of a plea across lower-level non-FMR charges versus FMR charges. Specifically, in those cases involving the 65 participants with at least one FMR charge as the most serious offense (i.e., no other felony murder "FM1" or "FM2" charges), 5% of non-FMR charges resulted in a guilty plea compared to only 2% of FMR charges that resulted in a guilty plea. This equates to an odds ratio of 2.23, meaning that the participants in this situation were more than twice as likely to

plead guilty to a non-FMR charge (i.e., to the lesser charge) than they were to plead guilty to the FMR charge. Therefore, confirming the initial hypothesis: in cases in which the felony murder rule is the most severe charge, the defendant will plead guilty to the lower-level offense charged concurrently with the felony murder rule.

Only 5 of 219 FMR cases resulted in a plea agreement (see TABLE 6). Therefore, very few participants pled guilty to committing a crime in violation of 9-1(a)(3) or the felony murder rule. Additionally, very few FMR cases went to trial. In Table 3, only 36 of 219 FMR cases went to trial. The low likelihood of going to trial is likely due to the lengthy and costly process of trial preparation. Evidence suggests that prosecutors originally charge these cases with no intention of going to trial in the first place. Instead, perhaps they believe that by charging a case more severely it will result in a plea agreement prior to trial or will result in them being looked at more favorably by constituents.

Additional qualitative research should be conducted to understand if an individual's choice to not plead guilty to the felony murder rule is due to feelings that the participant did not commit a crime severe enough to be charged under the felony murder rule. Another possibility for an individual to not plead guilty to a FMR charge is their fear of a lengthy sentence associated with a case under the felony murder rule. The participant would rather take the chance of going to trial or accepting a plea for a lower-level offense charged alongside the felony murder rule charge than pleading guilty to the long sentence associated with felony murder rule charges.

Additionally, the vast majority of felony murder rule charges (9-1(a)(3)) do not "stick" and are often dropped by prosecution after initiation and before either the disposition or the sentencing stages. As Table 6 shows (see rows 1 and 2), some felony murder rule charges are not dropped by

prosecutors nor are resolved through the taking of a plea agreement. Of these, a participant is twice as likely to be found not guilty (5.5%) of the felony murder rule during trial versus a guilty outcome (11%). In comparison, for the outcomes of non-FMR charges, there are nearly even odds of being found not guilty (54%) versus being found guilty (46%). Therefore, in cases when a felony murder rule charge is the most serious charge (i.e., no concurrent FM1 or FM2 charges), it seems wise for a participant to go to trial and fight the FMR charge rather than taking a plea agreement – and it seems most participants do just that.

As noted above, in cases where a felony murder rule charge is the most serious charge, it is very rare for FMR charges to reach the sentencing stage. Instead, the most likely outcome of a felony murder rule charge is "nolle prosecution" (50%) in which the prosecutor drops the felony-murder rule charge at the disposition stage. Of the cases in which the felony murder rule was the most severe charge, 110 FMR charges were dropped by prosecutors or 50.23% of felony murder rule cases charged in the disposition stage (see TABLE 6). Cases may be dismissed by prosecutors for a variety of reasons including a lack of sufficient evidence, 4th Amendment violations or procedural issues (Albrecht, 2022).

The second most common outcome in these cases was "N/A" (31%), which means the participant completely exists the system due to *all* charges being dropped prior to disposition (e.g., due to a finding of no probable cause or no indictment by a judge or grand jury). Given the sheer volume of FMR charges being dropped before sentencing, alongside the very low rates of guilty pleas and the higher odds of not guilty findings or verdicts in cases that go to trial, it seems that the felony murder rule is charged very aggressively, perhaps in hopes that other lower-level charges will stick instead.

Furthermore, Table 7 provide a somewhat closer test of the idea that people will plead guilty to "lesser" (non-felony murder) charges when a felony murder rule charge is present. Here, the "Other" column contains all non-felony murder charges from cases in which there was at least one felony murder rule charge initiated. The table shows that these lesser charges are about 3.5 times as likely [(80/11,526)/(22/11,138)=3.5] to result in a guilty plea compared to felony murder rule (FMR) charges. However, in addition to FMR charges, most of these cases also involve felony murder charges (1 or 2). Unexpectedly, it seems that felony murder #1 charges are 11.8 times as likely [(173/7,411)/(22/11,138)=11.8] to result in a guilty plea compared to felony murder rule charges. So, while it seems people may be "pleading down" to lesser offense perhaps to avoid a felony murder rule (and/or felony murder) charge, these results might also suggest that people tend to contest rather than plead guilty to FMR charges overall.

TABLE 7: Disposition: Outcome of FMR, FM1, FM2, & Other Charges in Cases with a Felony Murder Rule Charge

Outcome[1]	FM1	FM2	FMR	Other	NA_
Death Suggested-Cause Abated	37 (0.50%)	37 (0.50%)	63 (0.57%)	20 (0.17%)	0 (0.00%)
Found or Verdict Guilty	330 (4.45%)	325 (4.40%)	219 (1.97%)	339 (2.94%)	0 (0.00%)
Found or Verdict Not Guilty	465 (6.27%)	455 (6.16%)	566 (5.08%)	562 (4.88%)	0 (0.00%)
Nolle Prosecution	2875 (38.79%)	3029 (41.03%)	3717 (33.37%)	3562 (30.90%)	0 (0.00%)
Other	2 (0.03%)	2 (0.03%)	4 (0.04%)	3 (0.03%)	0 (0.00%)
Plea Guilty	173 (2.33%)	31 (0.42%)	22 (0.20%)	80 (0.69%)	0 (0.00%)
Superseded by Indictment	40 (0.54%)	40 (0.54%)	93 (0.83%)	90 (0.78%)	0 (0.00%)
NA	3489 (47.08%)	3464 (46.92%)	6454 (57.95%)	6870 (59.60%)	2 (100.00%)
Total	7411 (100.00%)	7383 (100.00%)	11138 (100.00%)	11526 (100.00%)	2 (100.00%)

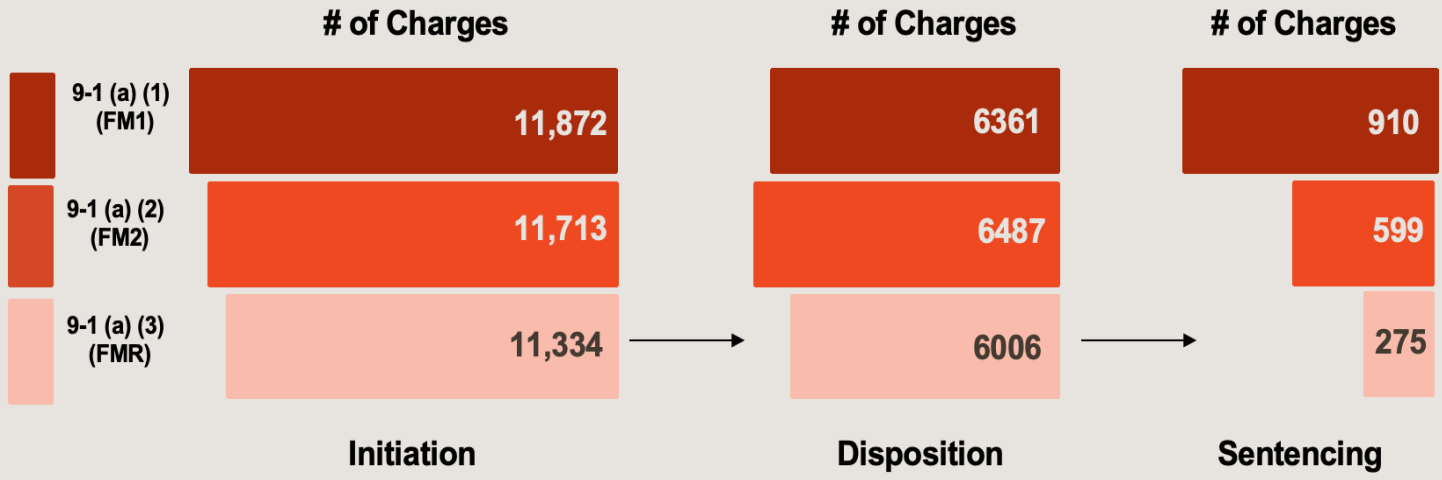
[1] **Data are from all cases in Cook County between 2010 and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR) charge.**

Table 7 also reveals that 2.7% (22/(22+219+566)=.027) of FMR charges result in pleas instead of trial, compared to 8.2 (80/(80+339+562)=8.15) of "Other" charges. However, in the restricted dataset containing the 65 participants who were charged exclusively with FMR and

lower-level charges, 12.2% (5 out of 41 FMR charges) resulted in pleas versus trial, whereas 27% (24 out of 89) of non-FMR charges resulted in pleas versus trial. Therefore, this evidence once again supports the idea that an individual is willing to plead guilty to an additional crime charged with the felony murder rule more so than pleading guilty to the felony murder rule.

It is important to examine not only how many people plead guilty to a crime but how many were dropped as well. Recall, there were n=11,334 felony murder rule charges ("9-1(a)(3)") in the initiation data out of 1,041,304 total charges at initiation (see FIGURE 1). By the disposition stage, this number is reduced to n=6,006 felony murder rule charges out of 889,873 total charges at disposition. This seems to suggest that approximately half (47%) of the felony murder rule charges did not make it to the disposition stage. Some reasons for this might include preliminary hearings found no probable cause; grand jury resulted in no indictment; or initial pleas resulted in diversion (Albrecht, 2022). By the sentencing stage, only n=275 felony murder charges remained (see FIGURE 4).

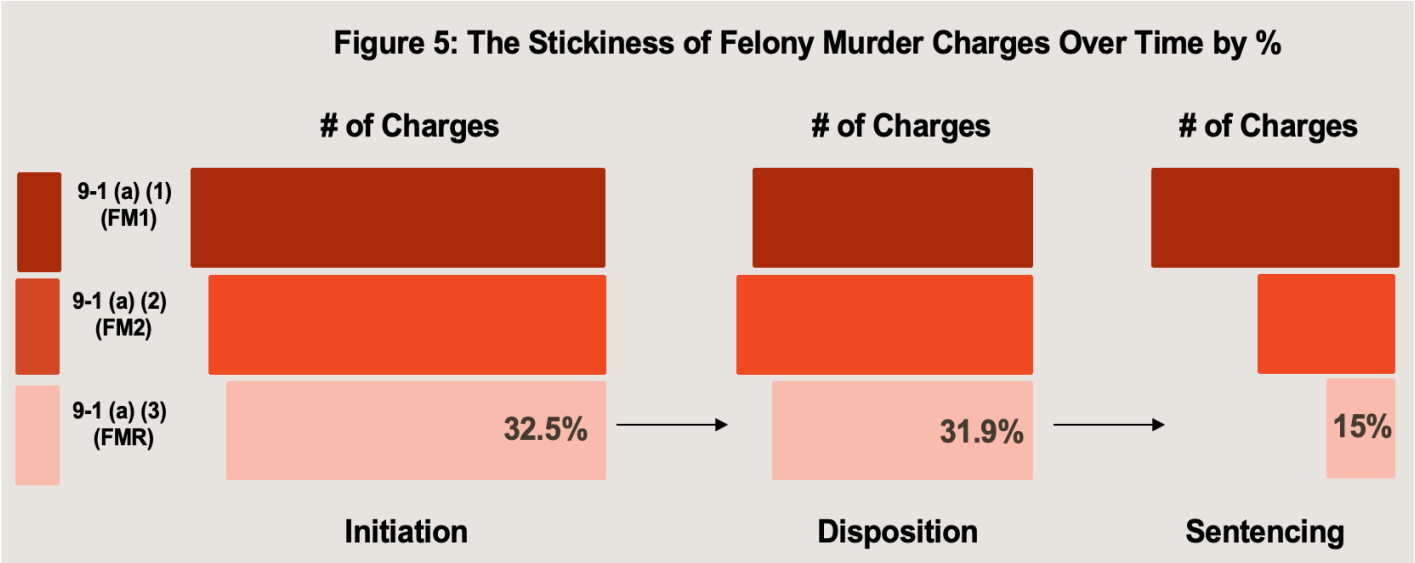
Figure 4: The Stickiness of Felony Murder Charges Over Time



With roughly 15000 cases not reaching the disposition stage, additional research is necessary to investigate if prosecutors are overly eager to charge crimes with felony murder to appear tough on crime or if the low likelihood to reach the disposition stage is caused by a more stringent evidentiary standard that becomes increasingly more difficult to reach as a case proceeds from initiation to disposition.

Additionally, of the roughly 18000 cases that reach the disposition stage, only 1784 cases reach the sentencing stage, or roughly 10 percent. Cases originally charged under the felony murder rule are more likely to be dropped than other cases prosecuted under felony murder statutes 9-1(a)(1) and 9-1(a)(2). Therefore, felony murder rule charges are considered to be less "sticky" as they have a hard time remaining until the sentencing phase. Figure 4 supports evidence that prosecutors charge crimes under the broadest felony murder statute without intention to take the case to the final stage of a criminal case; therefore, supporting my initial hypothesis: in cases in which the felony murder rule is the most severe charge, the defendant will plead guilty to the lower-level offense charged concurrently with the felony murder rule.

Also of interest, felony murder rule charges ("9-1(a)(3)") comprised approximately one-third of all felony murder charges ("9-1(a)(1-3)") at initiation (32.5%, or 11,334 out of 34,919) and at disposition (31.9%, or 6,006 out of 18,854) stages. In contrast, felony murder rule charges constituted only 15% (275 out of 1,784) of all felony murder charges at the sentencing stage (see FIGURE 5). This seems to also suggest that felony murder rule charges were less likely to make it from disposition to sentencing stages compared to other types of felony murder (see FIGURE 5).



It is important to further research why so many charges are dropped in Figures 4 & 5. We may wish to explore whether this is due to felony murder rule charges being more likely to be dismissed (i.e., "nolle prosequi") upon acceptance of a guilty plea for other charges, which could indicate that felony murder rule charges are more likely to be added as "stacked" charges that are filed insincerely (i.e., without true expectation of pursuing a punishment for the charge) in order to leverage guilty pleas on other charges

To understand how often multiple charges are stacked against a defendant, it is important to examine how often other charges were filed in cases where a defendant is charged under the felony murder rule. Of participants who were charged with a felony murder rule charge, aka, 9-1(a)(3), most were charged were 9-1(a)(1) or FM1 as the most severe charge. In fact, of the 1275 cases charged, 1210 cases had multiple felony murder charges applied (see TABLE 8).

Specifically, there were only 9 instances in which an individual was charged with 9-1(a)(2) or FM2 and not FM1. Additionally, there were 66 instances in which 9-1(a)(3) was the most severe charge and the individual was not charged additionally with FM1 or FM2.

TABLE 8: Initiation: Primary Charge Statute for Participants with a Felony Murder Rule Charge		
Statute	Number of Cases	Percent
8-4(18-4(a)(6))	1	0.0007843137
9-1	1	0.0007843137
9-1(a)(1)	1198	0.9396078431
9-1(a)(2)	9	0.0070588235
9-1(a)(3)	66	0.0517647059

Therefore, this data indicates that if a participant is charged with felony murder, they will most likely charged be charged with FM1 and then also concurrently charged with FM2 and/or the felony murder rule.

When considering the idea that prosecutors drop a felony-murder rule charge due to a defendant pleading guilty on a lesser charge, it is important to look at those cases in a side-by-side comparison. It is unclear without additional analyses whether a participant who pled guilty to a non-FMR charge had their felony murder rule charge dropped or reduced. Nonetheless, we may be able to get some sense of this by comparing plea outcomes for non-FMR charges (versus FMR charges) that do not involve one of the other two felony murder statutes. According to

TABLE 9: Disposition: Outcome of Non-FMR & FMR Charges in Cases with a Felony Murder Rule Charge		
Outcome[1]	Non-FMR	FMR
Death Suggested-Cause Abated	94 (0.36%)	63 (0.57%)
Found or Verdict Guilty	994 (3.78%)	219 (1.97%)
Found or Verdict Not Guilty	1482 (5.63%)	566 (5.08%)
Nolle Prosecution	9466 (35.97%)	3717 (33.37%)
Other	7 (0.03%)	4 (0.04%)
Plea Guilty	284 (1.08%)	22 (0.20%)
Superseded by Indictment	170 (0.65%)	93 (0.83%)
NA	13823 (52.52%)	6454 (57.95%)
Total	26320 (100.00%)	11138 (100.00%)

[1] **Data are from all cases in Cook County between X date and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR) charge. Two cases appeared to have missing charge disposition information and thus were not shown**

Table 9, among participants with at least one felony murder rule charge, non-FMR charges are roughly five times as likely to result in a plea bargain at disposition stage compared to felony murder rule charges [(284/26,320- 284)/(22/11,138-22) = 5.74]. This result was expected as evidence suggests an individual will be more likely to plead down to a lesser offense than plead guilty to a felony murder charge.

Research Question (3): Racial/Ethnic Trends in FMR Charges and Outcomes

With respect to racial and ethnic differences, Black participants were more likely to be charged with the felony murder rule than were White participants. Specifically, after transforming the data from a "charge-level" file to a "participant-level" file then removing duplicates and filtering for cases prior to July 1, 2021, the data included 375,642 participants, of which 1,275 had at least one FMR charge. About 75% of these (962 out of 1,275) participants with FMR charges were Black, compared to about 7% (92 out of 1,275) of participants who were White/Caucasian. While this is a vast disparity in raw participant counts, further comparison of the odds of an FMR charge after adjusting for the baseline number of charges by race shows further disparities. Specifically, Black participants (0.39%) were more than twice as likely to be charged with the felony murder rule compared to White/Caucasian participants (0.17%) [(962 / 247,771) / (92 / 53,944) = 2.28; see TABLE 10].

TABLE 10: Initiation: Number of Felony Murder Rule Charges by Race

FMR Charge Present[1]	Black	Hispanic/Latino	Mult/Oth/Unknown	White/Caucasian
0	247771 (99.61%)	63471 (99.67%)	9181 (99.86%)	53944 (99.83%)
1	962 (0.39%)	208 (0.33%)	13 (0.14%)	92 (0.17%)
Total	248733 (100.00%)	63679 (100.00%)	9194 (100.00%)	54036 (100.00%)

[1] **Participant-level datafile created by filtering on primary charge (after creating an indicator of the presence of an FMR charge), removing duplicates, and removing cases that occurred after July 1, 2021.**

The quantitative data listed in Table 10 supports the qualitative research conducted on Cook County's court system in which researcher Nicole Gonzalez Van Cleve argues that prosecutors charge individuals more often and with more severe sentences if they are Black (Gonzalez Van Cleve, 2016).

However, felony murder rule charges are very uncommon at sentencing stage, with only n=73 out of the observed 179,548 participants, or less than one-twentieth of one percent (0.04%), having at least one felony murder rule charge at this stage (see TABLE 11). Out of the n=73 participants who had at least one felony murder charge, about half (36) had two or more such charges.

When looking at the sentencing data, remember we are filtering to keep only those participants with at least one FMR charge. Looking back at the creation of the sentencing "Sub5" data shows there were only n=73 participants with an FMR charge at the sentencing stage (see TABLE 11). Those 73 participants appear to have n=809 charges total - including FMR and non-FMR charges. So, we are comparing a relatively small number of cases/participants at this stage by filtering on an FMR charge.

TABLE 11: Sentencing: Comparison of Felony Murder Charges

FMR Charge Present	Number of Individuals	Percent
0	179475	0.9995934235
1	73	0.0004065765

While there are a very small number of felony murder rule charges being brought to the sentencing level, when the data is examined in proportion to population, the racial disparities are clear. During the sentencing stage, of those with at least one FMR charge, Black participants

TABLE 12: Sentencing: Number of Felony Murder Rule Charges by Race

FMR Charge Present	Black	White/Caucasian	Hispanic/Latino	Mult/Oth/Unknown
0	116738 (99.95%)	26664 (99.99%)	32637 (99.97%)	3436 (100.00%)
1	60 (0.05%)	4 (0.01%)	9 (0.03%)	0 (0.00%)
Total	116798 (100.00%)	26668 (100.00%)	32646 (100.00%)	3436 (100.00%)

(0.05%) were three times as likely ((60/116798-60)/ (4/26668-4)= 3.43) to have a felony murder rule charge compared to White/Caucasian participants (0.01%) (see TABLE 12).

Due to the racial differences present in an individual's number of felony murder charges, it was important to examine if these racial differences continued in the outcome of cases charged as well. When examining the outcomes of all cases by race and ethnicity, not just felony murder rule charges, there are clear indications of racial differences, especially when considering which charges are dropped by prosecutors (see TABLE 13).

TABLE 13: Disposition: Outcome of All Charges by Race/Ethnicity

Outcome	Black	Hispanic/Latino	White/Caucasian	Mult/Oth/Unknown
Death Suggested-Cause Abated	147 (0.53%)	0 (0.00%)	10 (0.42%)	0 (0.00%)
Found or Verdict Guilty	959 (3.44%)	180 (2.64%)	62 (2.59%)	12 (2.91%)
Found or Verdict Not Guilty	1886 (6.77%)	88 (1.29%)	69 (2.89%)	5 (1.21%)
Nolle Prosecution	9246 (33.20%)	2374 (34.88%)	1281 (53.58%)	282 (68.45%)
Other	11 (0.04%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Plea Guilty	198 (0.71%)	61 (0.90%)	41 (1.71%)	6 (1.46%)
Superseded by Indictment	246 (0.88%)	7 (0.10%)	10 (0.42%)	0 (0.00%)
NA	15158 (54.43%)	4096 (60.18%)	918 (38.39%)	107 (25.97%)
Total	27851 (100.00%)	6806 (100.00%)	2391 (100.00%)	412 (100.00%)

Black participants are less likely to have their charges dropped ("nolle prosecution") by a prosecutor at the disposition state compared to a White participant. In fact, White participants were about twice as likely (OR = 2.3) to have their charges dropped by prosecution at the

disposition stage [1281 / (2391 – 1281)] / [9246 / (27851 – 9246)] = 1.15 / .497 = 2.3; see TABLE 13]. In contrast, Black participants were about twice as likely (OR = 1.9) as White participants to have their charges dropped *prior to* disposition (e.g., for a lack of probable cause or no indictment by judge or grand jury) [**(**15,158 / 12,693) / (918 / 1473**)** = 1.9; see TABLE 13]. Additionally, Black participants were twice as likely to face an outcome of death suggested-cause abated, which according to the Cook County Open Data Portal's code book, means that the defendant died prior to the case being sentenced (see TABLE 13).

Following an understanding of how outcomes differ in *all* cases, this analysis can be narrowed to specifically focus specifically on FMR charges. When examining only FMR charges

TABLE 14: Disposition: Outcome of FMR Charges by Race/Ethnicity

Outcome	Black	Hispanic/Latino	White/Caucasian	Mult/Oth/Unknown
Death Suggested-Cause Abated	60 (0.32%)	0 (0.00%)	3 (0.22%)	0 (0.00%)
Found or Verdict Guilty	178 (0.96%)	20 (0.41%)	20 (1.46%)	1 (0.54%)
Found or Verdict Not Guilty	518 (2.79%)	26 (0.54%)	18 (1.31%)	4 (2.15%)
Nolle Prosecution	2537 (13.67%)	698 (14.41%)	408 (29.74%)	74 (39.78%)
Other	4 (0.02%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Plea Guilty	12 (0.06%)	1 (0.02%)	2 (0.15%)	0 (0.00%)
Superseded by Indictment	87 (0.47%)	3 (0.06%)	3 (0.22%)	0 (0.00%)
NA	15158 (81.70%)	4096 (84.56%)	918 (66.91%)	107 (57.53%)
Total	18554 (100.00%)	4844 (100.00%)	1372 (100.00%)	186 (100.00%)

by race and ethnicity, the patterns in Table 13 remain consistent; White participants were about twice as likely (OR= 2.6) to have their charges dropped *at* the disposition stage [408 / (1372-408)] / [2537 / (18554-2537)] = .42/.16 = 2.63; see TABLE 14], while Black participants were twice as likely (OR = 2.2) to have their charges dropped *prior* to initiation (e.g., for a lack of probable cause or no indictment by judge or grand jury) [**(**15,158 / 3396) / (918 / 454**)** = 2.2; see TABLE 14]. Therefore, when a case gets brought forth to the trial stage, it is twice as likely to be

dropped for White participants than Black participants. One potential justification for this is prosecutors may be more willing to drop charges for a White participant because they are more lenient towards White participants.

While Black participants are more likely to have their case dropped prior the disposition stage, it remains unclear as to why. Prosecutors are in charge of bringing forth charges; therefore, with prosecutors' incentives for conviction, it is illogical to assume that prosecutors are dropping numerous strong charges. Instead, prosecutors must be dropping weak charges. In an examination of the Black participants in Table 14, the majority of these initial charges brought forth against Black participants are dropped by prosecutors who decide to no longer proceed with the prosecuting of these charges (e.g. due to a lack of evidence, procedural errors, 4th amendment violations etc.) before bringing these charges to trial. This data could indicate that prosecutors are charging Black individuals with more frivolous and unsupported charges than White individuals.

One theory that warrants additional research is whether the initial charging of numerous charges, that are ultimately dropped by the prosecutor against Black participants, is an attempt by prosecutors to increase the likelihood of a plea agreement prior to trial. When the participant opts to go to court with the charge, the charge is dropped. This is the opposite when considering White participants. Therefore, one may ask, are White participants initially charged with fewer well-supported charges than Black participants with the understanding the case may go to trial and become public? Given the historical context regarding prosecutors past tendency to bring forth charges more often against Black individuals, one may consider Table 14 as evidence of a similar attempt to appear tough on crime to constituents by bringing forth more charges against Black individuals.

Discussion

Implications of Findings

The era of being tough on crime has not ended. Instead, an institutional shift has occurred in which discretion has shifted from judicial to prosecutorial decision-making and, with this shift, prosecutors seem to have picked up the "tough on crime" mantle (Pfaff, 2017). This research investigates one aspect of prosecutorial decision-making – that of whether to initiate or drop charges related to felony murder rule statutes – and finds that these decisions appear zealous (given the low number of charges that stick) and not race-neutral (given the racial/ethnic disparities observed in charging and charge-dropping decisions).

Evidence in this research study suggests that prosecutors prioritize efficacy over justice by charging crimes aggressively, perhaps in hopes of one of the charges sticking for the crime committed. For many prosecutors, "aggressively" charging does not only mean bringing forth multiple charges but also bringing forth charges with the longest sentences, such as the felony murder rule. Yet, as shown, most felony murder rule charges do not "stick" (e.g., withstand to disposition stage) nor result in a conviction. However, of the rare felony murder rule charges that do make it to disposition stage, most people fight back and take those charges to trial, likely to argue that the charges are frivolous to the crime committed or that they were not involved in the crime.

The judicial system has strayed from the principles and promises that it was founded upon – namely the right to an equal and fair trial. Rooted in the 14th Amendment, the United States Constitution establishes that the criminal justice system has a legal obligation to prove that a defendant is guilty prior to taking away their life, liberty, or property. However, many critics argue that, in practice, the standards for punishment and due process do not meet the standards of the

Constitution, partly because courtrooms are unable to mediate two conflicting goals of the judicial system: one, assuring justice occurs, and two, disposing of cases in a timely and efficient manner (Gonzalez Van Cleve, 2016).

There is need for a stringent review of prosecutors' charging decisions, especially considering potential incentives prosecutors have in securing a conviction such as preserving local budgets and gaining a promotion. These findings related to felony murder rule charging in Cook County illustrate such issues: Should we have a law on the books that permits prosecution of a person for a crime that they neither had intent nor direct action in committing? The extremely low rates of guilty verdicts in such cases indicates the system informally rules "No" on this question. Yet, by permitting such charges that appear illegitimate in their philosophical foundations and are rarely enforced in practice, prosecutors can rely on the threat of harsh sentencing for these charges to coerce or persuade defendants' decisions on other charges.

Finally, ample evidence shows racial disparities continue to remain prevalent within the criminal justice system along with individuals in a low-socioeconomic status being disproportionately represented. The current research adds to this body of work by showing that charging decisions related to the felony murder rule also differ across racial and ethnic groups. As a result, the latent functions of the criminal justice system in fostering inequality should be more closely examined. One common suggestion is to address the prevalence of inadequate defense attorneys provided to defendants who cannot afford their own council. Based on the current research, there is also a need to consider why and how prosecutors make decisions to add or drop charges, specifically with respect to their differential decisions related to race and ethnicity.

Limitations of Findings

To fully investigate my research questions, I pulled data from each step in the processing of a criminal charge. The initiation stage is considered the first stage and is where an arrest becomes a criminal case. Therefore, at the initiation stage, there is no outcome of a felony murder rule case. After considering the limitations of the initiation data, I was only able to compare the outcomes of the disposition stage with those in the sentencing stage to view how a charge changes over time. Additionally, I was only able to consider data from the initiation, disposition, and sentencing stage due to the inability to sort data from the intake dataset according to the statute charged. Moreover, perhaps the largest limitation is the sole reliance on data from one county. There is no way to be sure that the findings would generalize to court systems and prosecutorial decision patterns in other counties, states, or jurisdictions. This is a particular issue given the known history of problems within the court system in Cook County, which have been documented in detail by researcher, Nicole Gonzalez Van Cleve (2016).

Conclusion

In cases with a felony murder rule charge as the most serious charge (i.e., no concurrent FM1 or FM2 charges), evidence suggests that while some people did plead guilty to lower-level charges to escape a felony murder or FMR charge, the overwhelming majority of FMR charges were dropped. Therefore, this begs the question, if the overwhelming majority of felony murder rule charges are dropped and those not dropped are disproportionately more likely to result in a non-guilty verdict, why do prosecutors continue to prosecute charges under the felony murder rule?

Evidence suggests that this decision is not about the upheaval of justice but is likely about something much less apparent- the ability to manipulate or coerce people's decisions with respect

to other sentencing outcomes in charges that are more likely to stick. Unfortunately, this decision is perpetuated by a judicial system that views plea bargaining as equivalent to efficacy and belief in the fallacy that the judicial system is judicial system is unbiased.

Ryan Holle has been in jail for nearly 18 years. When asked about his feelings associated with being charged under the felony murder rule, Holle argued that being charged with felony murder opened his eyes to the unfairness associated with the judicial system. According to Holle in an interview with Melissa Higgins, an advocate for those wronged by the judicial system, Holle states,

> "My views of the judicial system have changed; it is really easy to believe in it when you have never been a part of it… prior to the trial, I was offered a plea deal of second-degree murder and ten years. My lawyer told me not to take it because there was no way I would be convicted. The state attorney office offered me that plea deal because he stated that he didn't believe I was as culpable as my co-defendants. Yet under the felony murder rule, I got natural life. In hindsight, should I have taken the plea deal considering the severity of the felony murder rule? Absolutely. I actually would have gone home last October if I would have" (Holle).

While researchers continue to debate the purpose of the felony murder rule, it is important that we turn to data regarding the impact of the felony murder rule on the United States for roughly 200 years. While data has established what the felony murder rule does not do- deter crime or repay victims- we must look at what the data indicates that it does do- incentivize plea bargaining on lesser charges.

In felony murder rule cases, the odds are inherently stacked against you as your opponent is also the one who controls your fate. Prosecutors have incentives to secure a conviction; therefore, the mechanisms of criminalization may have changed. The criminal justice system is no longer

about giving you a fair chance to prove your innocence, it is about how resilient you are in outlasting the will of the prosecutor. As a result, prosecutors must be viewed with additional scrutiny to ensure personal and structural incentives to prosecute are not placed higher than the execution of justice.

References

A History of the Drug War . (n.d.). Retrieved February 16, 2022, from Drug Policy Alliance website: https://drugpolicy.org/issues/brief-history-drug-war

Albrecht, K. (2022). *Data Transparency, Compounding Bias, and the Felony Murder Rule*.

Albrecht, K. (2020, August 11). Data Transparency & The Disparate Impact of the Felony Murder Rule . Retrieved December 10, 2021, from Duke Center for Firearms Law website: https://firearmslaw.duke.edu/2020/08/data-transparency-the-disparate-impact-of-the-felony-murder-rule/

Arora, A. (2018). Too Tough On Crime? The Impact of Prosecutor Politics on Incarceration. In *University of Chicago Crime Lab*. Chicago.

Banks, C. (2020). *Criminal Justice Ethics - Theory and Practice* (5th Edition; J. Miller, A. Grout, J. Ragusa, & V. S. Hooper, Eds.). Retrieved from https://www.google.com/books/edition/Criminal_Justice_Ethics/sRp7DwAAQBAJ?hl=en&gbpv=1&dq=Cyndi+Banks,+Criminal+Justice+Ethics:+Theory+and+Practice,+103-120+(2018)&pg=PP1&printsec=frontcover

Baum, D. (2016). Legalize It All, How to Win the War on Drugs. In *Harper's Magazine*. Retrieved from https://harpers.org/archive/2016/04/legalize-it-all/

Beckett, Katherine. *Making Crime Pay: Law and Order in Contemporary American Politics*. Oxford University Press, 1997.

Binder, Guyora. (2004). The Origins of American Felony Murder Rules. Stanford Law Review. 57. 10.2307/40040203.

Binder, Guyora and Weisberg, Robert and Fissell, Brenner, Capital Punishment of Unintentional Felony Murder (2017). Notre Dame Law Review, Vol. 92, p. 1141, 2017, University at Buffalo School of Law Legal Studies Research Paper No. 2016-045, Stanford Public Law Working Paper, Available at SSRN: https://ssrn.com/abstract=2956440

Birdsong, Leonard. "Felony Murder: A Historical Perspective by Which to Understand Today's Modern Felony Murder Rule Statutes." *Thurgood Marshall Law Review*, vol. 32, 2006, https://heinonline.org/HOL/Page?handle=hein.journals/thurlr32&id=5&div=&collection=.

Bjerk, David. "Making the Crime Fit the Penalty: The Role of Prosecutorial Discretion under Mandatory Minimum Sentencing*." *Https://Doi.Org/10.1086/429980*, vol. 48, no. 2, The University of Chicago Press , July 2015, pp. 591–625, doi:10.1086/429980.

Burton, A. (n.d.). *A Commonsense Conclusion: Creating a Juvenile Carve Out to the Massachusetts Felony Murder Rule*. Retrieved from http://www.mass.gov/

Caldwell, H. Mitchell. "Coercive Plea Bargaining: The Unrecognized Scourge of the Justice System." *Catholic University Law Review*, vol. 61, 2011, https://heinonline.org/HOL/Page?handle=hein.journals/cathu61&id=65&div=5&collection=journals.

Caplow, Theodore, and Jonathan Simon. "Understanding Prison Policy and Population Trends." *Crime and Justice*, vol. 26, 1999, pp. 63–120, http://www.jstor.org/stable/1147684. Accessed 3 May 2022.

Clair, Matthew and Woog, Amanda, Courts and the Abolition Movement (February 13, 2021). California Law Review, Vol. 110, No. 1, 2022, Available at SSRN: https://ssrn.com/abstract=

Drake, Bruce. “Incarceration Gap Widens between Whites and Blacks.” *Pew Research Center*, 6 Sept. 2013, https://www.pewresearch.org/fact-tank/2013/09/06/incarceration-gap-between-whites-and-blacks-widens/.

Drizin, Steven A., and Allison McGowen Keegan. “Abolishing the Use of the Felony-Murder Rule When the Defendant Is a Teenager.” *Nova Law Review*, vol. 28, 2003, https://heinonline.org/HOL/Page?handle=hein.journals/novalr28&id=515&div=&collection=.

Flynn, Erin. “Dismantling the Felony-Murder Rule: Juvenile Deterrence and Retribution Post-Roper v. Simmons.” *University of Pennsylvania Law Review*, vol. 156, no. 4, Apr. 2008, https://scholarship.law.upenn.edu/penn_law_review/vol156/iss4/4.

Fred C. Zacharias, *Justice in Plea Bargaining*, 39 Wm. & Mary L. Rev. 1121 (1998), https://scholarship.law.wm.edu/wmlr/vol39/iss4/4

Friedersdorf, Conor. “The War on Drugs Turns 40.” *The Atlantic*, 2011, https://www.theatlantic.com/politics/archive/2011/06/the-war-on-drugs-turns-40/240472/.

Ganz, Daniel. *The American Felony Murder Rule: Purpose and Effect*. 2012.

Gerber, Rudolph J. “The Felony Murder Rule: Conundrum without Principle.” *Arizona State Law Journal*, vol. 31, 1999, https://heinonline.org/HOL/Page?handle=hein.journals/arzjl31&id=779&div=&collection=.

Clair, Matthew. *Privilege and Punishment*. Princeton University Press, 2020.

Clarke, Stevens. “Getting’em Out of Circulation: Does Incarceration of Juvenile Offenders Reduce Crime.” *Journal of Criminal Law and Criminology*, vol. 65, no. 4, Jan. 1975, https://scholarlycommons.law.northwestern.edu/jclc/vol65/iss4/13.

Cook County’s Criminal Justice System: Trends and Issues Report. 2019.

Douglas D. Guidorizzi, Comment, Should We Really “Ban” Plea Bargaining?: The Core Concerns of Plea Bargaining Critics, 47 EMORY L.J. 753, 771–72 (1998)

Gomez, Lauren Theresa, and Harriet L. Wilkes. *Punishing A Person for Another’s Crime: The Felony Murder Rule*. 2012.

Gonzalez Van Cleve, Nicole. *Crook County: Racism and Injustice in America’s Largest Criminal Court*. Stanford University Press, 2016.

Higgins, Melissa. “Ryan Holle- Victim of the Felony Murder Rule.” *Just Us and A Broken Justice System*, http://www.just-us-justice.com/ryan-holle.html. Accessed 2 May 2022.

Hinton, Elizabeth. *From the War on Poverty to the War on Crime: The Making of Mass Incarceration in America*. Harvard University Press, 2016.

History.com Editors. “War on Drugs.” *History.Com*, 17 Dec. 2019, https://www.history.com/topics/crime/the-war-on-drugs.

Holle, Ryan. Personal Interview. Conducted by Melissa Higgins. Just Us and A Broken Justice System. n.d.

How to Read the Open Data. (n.d.). Retrieved May 3, 2022, from Cook County State’s Attorney Office website: https://www.cookcountystatesattorney.org/resources/how-read-data

Illinois General Assembly. (2022). Illinois Compiled Statutes. Retrieved May 3, 2022, from https://www.ilga.gov/legislation/ilcs/fulltext.asp?DocName=072000050K9-1

Kara M. Houck, People v Dekens: The Expansion of the Felony-Murder Doctrine in Illinois, 30 Loy. U. CHI.L.J. 357, 367 (1999).

Klein, Richard. "Due Process Denied: Judicial Coercion in the Plea Bargaining Process." *Hofstra Law Review*, vol. 32, 2003, https://heinonline.org/HOL/Page?handle=hein.journals/hoflr32&id=1361&div=52&collection=journals.

Kokkalera, Stuti S., et al. "Article: Too Young for the Crime, Yet Old Enough to Do Life: A Critical Review of How State Felony Murder Laws Apply to Juvenile Defendants." *Journal of Criminal Justice and Law*, vol. 4, no. 2, 2021, pp. 90–107, https://jcjl.pubpub.org/pub/v4i290107/release/1.

Lieb, D. (2014). Vindicating Vindictiveness: Prosecutorial Discretion and Plea Bargaining, Past and Future. *Yale Law Journal* , *123*(4). Retrieved from https://www.yalelawjournal.org/note/vindicating-vindictiveness-prosecutorial-discretion-and-plea-bargaining-past-and-future

Lijtmaer, Martin. "The Felony Murder Rule in Illinois: The Injustice of the Proximate Cause Theory Explored via Research in Cognitive Psychology." *THE JOURNAL OF CRIMINAL LAW & CRIMINOLOGY*, vol. 98, no. 2, 2008, https://scholarlycommons.law.northwestern.edu/jclc.

Liptak, Adam. "Serving Life for Providing Car to Killers." *New York Times*, 2007, https://www.nytimes.com/2007/12/04/us/04felony.html.

Malani, Anup. "Does the Felony-Murder Rule Deter? Evidence from FBI Crime Data." *ResearchGate*, 2016.

Malle, Bertram F., and Sarah E. Nelson. "Judging Mens Rea: The Tension between Folk Concepts and Legal Concepts of Intentionality." *Behavioral Sciences & the Law*, vol. 21, no. 5, John Wiley & Sons, Ltd, Sept. 2003, pp. 563–80, doi:10.1002/BSL.554.

Nancy A. Combs *Copping a Plea to Genocide: The Plea Bargaining of International Crimes* , 151 U. PA. L. REV. 1 (2002). Available at: https://scholarship.law.upenn.edu/penn_law_review/vol151/iss1/2

Neily, Clark. "Coercive Plea Bargaining: An American Export the World Can Do Without." *Cato Institute*, 23 Apr. 2021, https://www.cato.org/commentary/coercive-plea-bargaining-american-export-world-can-do-without.

Okafor, Chika O. *Prosecutor Politics: The Impact of Election Cycles on Criminal Sentencing in the Era of Rising Incarceration*. https://arxiv.org/abs/2110.09169.

People v. Hudson, 856 N.E.2d 1078, 1084-85 (Il2l0.06)

People v. Klebanowski, 852 N.E.2s 813, 815(Ill.2006

Pfaff, John F. "The Micro and Macro Causes of Prison Growth, 28 Ga." *St. U. L. Rev*, 2013, https://readingroom.law.gsu.edu/gsulrAvailableat:https://readingroom.law.gsu.edu/gsulr/vol28/iss4/9.

John F. Pfaff, Waylaid by a Metaphor: A Deeply Problematic Account of Prison Growth, 111 MICH. L. REV. 1087 (2013). Available at: https://repository.law.umich.edu/mlr/vol111/iss6/12

Pfaff, John F. *Locked in: The True Causes of Mass Incarceration and How to Achieve Real Reform*. Basic Books, 2017.

Piquero, A.R., Blumstein, A. Does Incapacitation Reduce Crime?. *J Quant Criminol* **23,** 267–285 (2007). https://doi.org/10.1007/s10940-007-9030-6

Rehavi, M. Marit, et al. "Racial Disparity in Federal Criminal Sentences Racial Disparity in Federal Criminal Sentences Recommended Citation Recommended Citation Racial Disparity in Federal Criminal Sentences." *M. M. Rehavi, Co-Author. J. Pol. Econ*, vol. 122, no. 6, 2014, pp. 1320–54, https://repository.law.umich.edu/articles/1414.

Reichert, Jessica, et al. "The 2021 SAFE-T Act: ICJIA Roles and Responsibilities." *Illinois Criminal Justice Information Authority*, 15 July 2021, https://icjia.illinois.gov/researchhub/articles/the-2021-safe-t-act-icjia-roles-and-responsibilities.

Rucker, Julian M., and Jennifer A. Richeson. "Toward an Understanding of Structural Racism: Implications for Criminal Justice." *Science*, vol. 374, no. 6565, American Association for the Advancement of Science, Oct. 2021, pp. 286–90, doi:10.1126/SCIENCE.ABJ7779.

Schoenfeld, Heather. "The War on Drugs, the Politics of Crime, and Mass Incarceration in the United States." *Journal of Gender, Race & Justice*, vol. 15, 2012, https://heinonline.org/HOL/Page?handle=hein.journals/jgrj15&id=319&div=17&collection=usjournals.

Tomkovicz, James J. "The Endurance of the Felony-Murder Rule: A Study of the Forces That Shaped Our Criminal Law." *Washington and Lee Law Review*, vol. 51, no. 4, Sept. 1994, https://scholarlycommons.law.wlu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1696&context=wlulr.

Tomlinson, Kelli D. "An Examination of Deterrence Theory: Where Do We Stand?" *Federal Probation* 80 (2016): 33.

Travis, Jeremy, Western, Bruce, Redburn, Stevens. "The Growth of Incarceration in the United States: Exploring Causes and Consequences." *Publications and Research*, Jan. 2014, https://academicworks.cuny.edu/jj_pubs/27.

Trivedi, Somil, and Nicole Gonzalez Van Cleve. *TO SERVE AND PROTECT EACH OTHER: HOW POLICE-PROSECUTOR CODEPENDENCE ENABLES POLICE MISCONDUCT*. https://perma.cc/JGL6-Z9HV]. Accessed 16 Feb. 2022.

Turk, Austin. *Criminality and Legal Order*. Rand McNally & Company, 1969.

United States Sentencing Commission. "Demographic Differences in Sentencing ." *United States Sentencing Commission*, 14 Nov. 2017, https://www.ussc.gov/research/research-reports/demographic-differences-sentencing.

William Bowers & Glenn Pierce, Bowers, William J., & Glenn L. Pierce, *Arbitrariness and Discrimination Under Post-Furman Capital Statutes*, 26 Crime & DELINQUENCY 563, 615 (1980).

Whitford, Andrew B., Yates, Jeff. *Presidential Rhetoric and the Public Agenda*. The John Hopkins University Press, 2009

Supplemental Appendix

Please see code used for data analysis below.

Felony Murder Data

Anna Engel & Jon Brauer

3/3/2022

Table of Contents

Felony Murder Rule in Cook County Data

Load Libraries

In addition to loading necessary libraries, we will also remove the scientific notation in our viewer outputs to make it easier to see large unique variables like case participant IDs or very small numbers like percentages near zero.

```
library("haven")
library("here")

## here() starts at /Users/annaengel/Dropbox/Engel_Thesis_S22/Anna_work

library("tidyverse")

## ── Attaching packages ─────────────────────────────────────── tidyverse 1.
3.1 ──

## ✓ ggplot2 3.3.5     ✓ purrr   0.3.4
## ✓ tibble  3.1.6     ✓ dplyr   1.0.8
## ✓ tidyr   1.1.4     ✓ stringr 1.4.0
## ✓ readr   2.1.2     ✓ forcats 0.5.1

## ── Conflicts ────────────────────────────────────────── tidyverse_conflict
s() ──
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()

library("gt")
library("janitor")

##
## Attaching package: 'janitor'

## The following objects are masked from 'package:stats':
##
##     chisq.test, fisher.test

library("data.table")
```

```
##
## Attaching package: 'data.table'

## The following objects are masked from 'package:dplyr':
##
##     between, first, last

## The following object is masked from 'package:purrr':
##
##     transpose

library("stringr")
library("data.table")
library("lubridate")

##
## Attaching package: 'lubridate'

## The following objects are masked from 'package:data.table':
##
##     hour, isoweek, mday, minute, month, quarter, second, wday, week,
##     yday, year

## The following objects are masked from 'package:base':
##
##     date, intersect, setdiff, union

library("ggeffects")
library("ggplot2")
library("webshot")

#remove scientific notation in global output
options(scipen = 999)
```

Read in Cook County Data

As the United States' largest court system, I was very interested in examining the Felony Murder Rule in Cook County and was able to do so through Cook County's Open Data Portal. The open data portal provides data for adults within Cook County's court system whose case went before the State Attorneys Office. The data is separated by each stage in the criminal process: intake, initation, disposition, diversion, and sentencing. Because all cases involving the felony murder rule are felony cases, they are not eligible for diversion. I therefore did not use this dataset. Additionally, I was able to determine which case involved the felony murder rule by examining the statute the case was charged under, I unfortunately was unable to use data from the intake stage as it lacked the statute number. Therefore, I utilized the initiation, disposition and sentencing data to track how an individual originally charged under the felony murder rule progressed through the Cook County Court System.

The initiation data includes all the arrests that were presented to the State's Attorneys Office. As the first stage, the initiation phase is one in which an arrest becomes a formal criminal case

within the court system. In this phase, the case and participant is given a unique identifier. This dataset does not include data involving juveniles or civil proceedings. The dataset used for my analysis is available here[https://datacatalog.cookcountyil.gov/Courts/Initiation/7mck-ehwz]

The second phase is the disposition phase. During the disposition phase, facts of a case are presented and a final verdict is determined on the case. Therefore, in this phase, the court decides if a defendant is innocent or guilty of the crimes charged as well as considers cases in which all or multiple charges were dismissed. The dataset used for my analysis is available here[https://datacatalog.cookcountyil.gov/Courts/Dispositions/apwk-dzx8]

Finally, the last stage I examined in a case was the sentencing stage. The sentencing stage occurs after a verdict has been determined and therefore excludes cases that were dismissed during the disposition phase. Each row within this dataset represents one charge that has been disposed of and then given a sentence. The dataset used for my analysis is available here [https://datacatalog.cookcountyil.gov/Courts/Sentencing/tg8v-tm6u]

Therefore, I began my data analysis by uploading all three datasets from Cook County's Open Data Portal and inputting them into RStudio.

```
Initiation <- read_csv(here("Datasets","Cook County Data","Initiation.csv"))

## Warning: One or more parsing issues, see `problems()` for details

## Rows: 1041304 Columns: 38
## ── Column specification ────────────────────────────────────────────────
──────
## Delimiter: ","
## chr (25): RECEIVED_DATE, OFFENSE_CATEGORY, CHARGE_OFFENSE_TITLE, CHAPTER,
SE...
## dbl (10): CASE_ID, CASE_PARTICIPANT_ID, CHARGE_ID, CHARGE_VERSION_ID, CHAR
GE...
## lgl  (3): PRIMARY_CHARGE_FLAG, BOND_ELECTRONIC_MONITOR_FLAG_INITIAL, BOND_
EL...
##
## ℹ Use `spec()` to retrieve the full column specification for this data.
## ℹ Specify the column types or set `show_col_types = FALSE` to quiet this
message.

#Add in disposition data and sentencing data here
Disposition <- read_csv(here("Datasets","Cook County Data","Dispositions.csv"
))

## Warning: One or more parsing issues, see `problems()` for details

## Rows: 889873 Columns: 33
## ── Column specification ────────────────────────────────────────────────
──────
## Delimiter: ","
## chr (25): RECEIVED_DATE, OFFENSE_CATEGORY, DISPOSITION_CHARGED_OFFENSE_TIT
LE...
```

```
## dbl  (7): CASE_ID, CASE_PARTICIPANT_ID, CHARGE_ID, CHARGE_VERSION_ID, CHAR
GE...
## lgl  (1): PRIMARY_CHARGE_FLAG
##
## ℹ Use `spec()` to retrieve the full column specification for this data.
## ℹ Specify the column types or set `show_col_types = FALSE` to quiet this
message.
```

```
Sentencing <- read_csv(here("Datasets","Cook County Data","Sentencing.csv"))
```

```
## Warning: One or more parsing issues, see `problems()` for details
```

```
## Rows: 260307 Columns: 41
## ── Column specification ────────────────────────────────────────────────────
──────
## Delimiter: ","
## chr (31): RECEIVED_DATE, OFFENSE_CATEGORY, DISPOSITION_CHARGED_OFFENSE_TIT
LE...
## dbl  (8): CASE_ID, CASE_PARTICIPANT_ID, CHARGE_ID, CHARGE_VERSION_ID, CHAR
GE...
## lgl  (2): PRIMARY_CHARGE_FLAG, CURRENT_SENTENCE_FLAG
##
## ℹ Use `spec()` to retrieve the full column specification for this data.
## ℹ Specify the column types or set `show_col_types = FALSE` to quiet this
message.
```

Select a Subset of Variables

I began working with my data by filtering each dataset down to include a smaller subset of variables I was interested in examining such as race, offense category and section. I then renamed each variable to lowercase for ease of use and to distinguish from the other two datasets as those include the same variables.

Initiation data

```
Initiationsub1 <- Initiation %>%
  mutate(
    i_case_id= CASE_ID,
    i_received_date= RECEIVED_DATE,
    i_offense_category= OFFENSE_CATEGORY,
    i_primary_charge_flag= PRIMARY_CHARGE_FLAG,
    i_charge_offense_title= CHARGE_OFFENSE_TITLE,
    i_chapter= CHAPTER,
    i_act=ACT,
    i_section= SECTION,
    i_age_at_incident= AGE_AT_INCIDENT,
    i_race= RACE,
    i_gender= GENDER
  ) %>%
  select(CASE_PARTICIPANT_ID, CHARGE_ID, i_case_id, i_received_date,i_offense
```

```
_category,i_primary_charge_flag,i_charge_offense_title,i_chapter,i_act,i_sect
ion, i_age_at_incident,i_race,i_gender)
```

Disposition data

```
Dispositionsub1 <- Disposition %>%
  mutate(
    d_case_id= CASE_ID,
    d_recieved_date= RECEIVED_DATE,
    d_offense_category= OFFENSE_CATEGORY,
    d_primary_charge_flag= PRIMARY_CHARGE_FLAG,
    d_charge_offense_title= DISPOSITION_CHARGED_OFFENSE_TITLE,
    d_charge_count= CHARGE_COUNT,
    d_charged_chapter= DISPOSITION_CHARGED_CHAPTER,
    d_charged_act= DISPOSITION_CHARGED_ACT,
    d_charged_section= DISPOSITION_CHARGED_SECTION,
    d_charged_disposition= CHARGE_DISPOSITION,
    d_disposition_reason= CHARGE_DISPOSITION_REASON,
    d_age= AGE_AT_INCIDENT,
    d_race= RACE,
    d_gender= GENDER,
    d_incident_city= INCIDENT_CITY,
    d_updated_offense_category=UPDATED_OFFENSE_CATEGORY
  ) %>%
  select(CASE_PARTICIPANT_ID, CHARGE_ID, d_case_id, d_recieved_date, d_offens
e_category, d_primary_charge_flag, d_charge_offense_title, d_charge_count,  d
_charged_chapter, d_charged_act, d_charged_section, d_charged_disposition,  d
_disposition_reason, d_age, d_race, d_gender,d_incident_city,d_updated_offens
e_category)
```

Sentencing data

```
Sentencingsub1 <- Sentencing %>%
  mutate(
    s_case_id= CASE_ID,
    s_recieved_date= RECEIVED_DATE,
    s_offense_category=OFFENSE_CATEGORY,
    s_primary_charge_flag=PRIMARY_CHARGE_FLAG,
    s_disposition_charged_offense=DISPOSITION_CHARGED_OFFENSE_TITLE,
    s_charge_count= CHARGE_COUNT,
    s_disposition_charged_chapter= DISPOSITION_CHARGED_CHAPTER,
    s_disposition_charge_act= DISPOSITION_CHARGED_ACT,
    s_disposition_charge_section= DISPOSITION_CHARGED_SECTION,
    s_charge_disposition= CHARGE_DISPOSITION,
    s_charge_disposition_reason= CHARGE_DISPOSITION_REASON,
    s_court_facility=SENTENCE_COURT_FACILITY,
    s_phase= SENTENCE_PHASE,
    s_date= SENTENCE_DATE,
    s_type= SENTENCE_TYPE,
    s_current_sentence_flag= CURRENT_SENTENCE_FLAG,
    s_commitment_type= COMMITMENT_TYPE,
    s_commitment_term= COMMITMENT_TERM,
```

```
    s_commitment_unit= COMMITMENT_UNIT,
    s_length_of_case= LENGTH_OF_CASE_in_Days,
    s_age_at_incident= AGE_AT_INCIDENT,
    s_race= RACE,
    s_gender= GENDER,
    s_incident_city= INCIDENT_CITY,
    s_updated_offense_category= UPDATED_OFFENSE_CATEGORY
  ) %>%
  select(CASE_PARTICIPANT_ID, CHARGE_ID,s_case_id,s_recieved_date,s_offense_c
ategory,s_primary_charge_flag, s_disposition_charged_offense,s_charge_count,s
_disposition_charged_chapter, s_disposition_charge_act, s_disposition_charge_
section, s_charge_disposition, s_charge_disposition_reason, s_court_facility,
s_phase,s_date,s_type,s_current_sentence_flag,s_commitment_type,s_commitment_
term,s_commitment_unit,s_length_of_case,s_age_at_incident, s_race,s_gender,s_
incident_city,s_updated_offense_category)
```

Initiation: Wrangle & Summarize Data

Sub2: All Felony Murder (1, 2, and 3 aka "felony murder rule") Charges

The code below filters data to keep only those rows in which the variable "i_section" has a value of "9-1(a)(1)" or "9-1(a)(2)" or ""9-1(a)(3)." I believe this retains all first degree murder charges - not just "felony murder rule" charges. (Am I missing any other relevant statute codes?) I think the "felony murder rule" code is "9-1(a)(3)" - see here.

Additionally, recall that these are charge-level data at the initiation stage. That is, in these data, one participant can/often does have multiple rows corresponding to multiple charges - even many of same type (e.g., multiple charges corresponding to the felony murder rule for the same participant). Later, we will likely want to wrangle the data (e.g., using pivot_wider) to transform into participant-level data (i.e., one row per participant).

(Note, too, that the code below loads the *gt* package and adds a pipe to the *gt()* function; we will use this throughout to generate tables that are cleaner and easier to read.)

```
Initiationsub2 <- Initiationsub1 %>%
  filter(i_section == "9-1(a)(1)" | i_section == "9-1(a)(2)" | i_section == "
9-1(a)(3)")

head(Initiationsub2) %>%
  gt() %>%
  tab_header(
    title = md("**Initiation: All Felony Murder Charges**"))
```

Frequency Tables for All Felony Murder Charges

Now, let's create a simple frequency table to count how many felony murder charges there are in these initiation data by type (1, 2, or 3). To do this, we will use the *tabyls()* function from the *janitor()* package, then clean up the table by piping the results to the *gt()* function (from the *gt* package).

```
Initiationsub2 %>%
  tabyl(i_section) %>%
  gt() %>%
  cols_label(
    "i_section" = "Statute Charged",
    "n" = "Number of Charges",
    "percent"= "Percent") %>%
  tab_header(
    title = md("**TABLE 1: Initiation: Frequency of Each Felony Murder Statut
e**"))%>%
 tab_footnote(
    footnote = "**Cases charged under the Felony Murder Rule are charged unde
r statute 9-1(a)(3)**",
    locations = cells_column_labels(i_section)
 )
```

We can also create simple cross-tabulation tables to calculate felony murder charge counts by another variable, such as participant's race. Remember, these are number of charges by race - not number of participants by race with a particular charge. The distinction is important.

```
#simple two-way table
Initiationsub2 %>%
  tabyl(i_section, i_race) %>%
  gt()%>%
  tab_header(
    title = md("**Initiation: All Felony Murder Cases by Race**"))%>%
 tab_footnote(
    footnote = "**Cases charged under the Felony Murder Rule are charged unde
r section number 9-1(a)(3)**",
    locations = cells_column_labels(i_section)
 )
```

Counts are a good start, but let's add percentages to this table to aid interpretation.

```
#simple two-way table
Initiationsub2 %>%
  tabyl(i_section, i_race) %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 1) %>%
  adorn_ns() %>%
gt()%>%
  cols_label(
    "i_section" = "Statute Charged",
 ) %>%
  tab_header(
    title = md("**Initiation: Felony Murder Cases by Race**"))%>%
 tab_footnote(
    footnote = "**Cases charged under the Felony Murder Rule are charged unde
r section number 9-1(a)(3)**",
```

```
    locations = cells_column_labels(i_section)
 )
```

Now, let's revisit this data subset.

```
view(Initiationsub2)
```

One important thing to note is that these data do not allow us to describe the primary charge for participants who have one or more felony murder charges - that is, for these cases, the variable "i_primary_charge_flag" should have a value of "FALSE" as the felony murder rule is a secondary charge that may be added to another primary felony charge when a death occurs during the course of a (non-first degree murder) felony. Since filtering for felony murder charge does NOT keep the primary charge in these cases but we want that information in the data, let's see if we can add to our filter to retain the primary charge.

Sub3: All Felony Murder Charges + All Primary Charges

```
#NOTE: Filtering for felony murder charge does NOT keep the primary charge in
formation. Let's create a new subset to try to retain that information.

Initiationsub3 <- Initiationsub1 %>%
  filter(i_section == "9-1(a)(1)" | i_section == "9-1(a)(2)" | i_section == "
9-1(a)(3)"  | i_primary_charge_flag == "TRUE")

head(Initiationsub3) %>%
 gt() %>%
  tab_header(
    title = md("**Initiation: Felony Murder Primary Charges**"))
```

Our "Sub2" dataset had n=34,919 rows corresponding to 34,919 different charges of felony murder (class 1, class 2, & class 3 or "felony murder rule"). Retaining the primary charge results in a dataset with n=416,692 rows corresponding to all felony murder charges (all three types) and all primary charges (all types).

Unfortunately, this is not exactly what we want - we want to keep information about the primary charge type only for those participants who have a felony murder charge and not for all those participants who do not have a felony murder charge. So, we will need to take a different approach to wrangling data to get what we want.

Sub4: Participant-level File with Primary Charge + Number of Felony Murder Charges

Moving forward, let's shift our focus to only those with felony murder rule ("9-1(a)(3)") charges for now instead of all felony murders. We can expand again later if desired. Also, let's move toward creating a participant-level dataset so we can count the number of unique participants facing felony murder charges (instead of the number of charges).

To begin, we can start by simply tallying up the number of felony murder charges each unique participant has listed. To do so, we first group our data by the unique participant ID variable, then we create a tally variable with the useful add_tally function. This loops through each unique participant ID, tallies the number of rows within each participant with a "9-1(a)(3)"

value for the “i_section” variable (indicating a felony murder charge), then creates a new variable (column) with this tally, and finally renames the tally variable from “n” to “n_fmr” (for number of felony murder rule charges).

```
Initiationsub4 <- Initiationsub1 %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  add_tally(i_section == "9-1(a)(3)") %>%
  rename(n_fmr = n)
```

That worked! Now lets keep only the row containing a participant’s primary charge. If a participant can only have one primary charge, then this will result in a participant-level dataset.

```
Initiationsub4 <- Initiationsub4 %>%
  filter(i_primary_charge_flag == "TRUE")

head(Initiationsub4) %>%
 gt() %>%
  tab_header(
    title = md("**Initiation: Participant Primary Felony Murder Charge**"))
```

This dropped our datafile from over one million charges to n=384,777 primary charges and (hopefully) participants. Let’s double-check to make sure we do not have any duplicate participant IDs.

```
tabyl(duplicated(Initiationsub4$CASE_PARTICIPANT_ID)) %>% gt()
```

As expected, all participant IDs are unique in our new “Sub4” dataset! Now, let’s see how many participants have one or more felony murder rule charges.

Count of Felony Murder Rule Charges by Participant

```
Initiationsub4 <- Initiationsub4 %>%
  mutate(bin_fmr = n_fmr,
         bin_fmr = ifelse(n_fmr > 0, 1, 0))

Table2 <- Initiationsub4 %>%
 tabyl(n_fmr) %>%
  gt() %>%
cols_label(
    "n_fmr" = "Number of FMR Charges",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
tab_header(
    title = md("**TABLE 2: Initiation: Number of Individuals per Felony Murde
r Rule Charge Count**")) %>%
 tab_footnote(
    footnote = "**Participant-level datafile created by filtering on primary
charge (after creating an indicator of the presence of an FMR charge), removi
ng duplicates, and removing cases that occurred after July 1, 2021.**",
    locations = cells_column_labels(n_fmr))
```

```
Table2 %>%
gtsave(
  "table2.png", expand=10,
  path = here("Output")
)
```

TABLE 2: Initiation: Number of Individuals per Felony Murder Rule Charge Count		
Number of FMR Charges[1]	Number of Individuals	Percent
0	383466	0.996592831692
1	175	0.000454808889
2	184	0.000478199061
3	175	0.000454808889
4	177	0.000460006705
5	26	0.000067571606
6	163	0.000423621994
7	15	0.000038983619
8	61	0.000158533384
9	57	0.000148137753
10	13	0.000033785803
11	3	0.000007796724
12	74	0.000192319187
14	11	0.000028587987
15	14	0.000036384711
16	12	0.000031186895
18	37	0.000096159594
20	11	0.000028587987
21	14	0.000036384711
24	17	0.000044181435
27	4	0.000010395632
28	4	0.000010395632
30	10	0.000025989079
32	4	0.000010395632
33	1	0.000002598908
36	10	0.000025989079
38	1	0.000002598908
39	1	0.000002598908
40	1	0.000002598908
42	2	0.000005197816
43	2	0.000005197816
45	3	0.000007796724
48	1	0.000002598908
54	3	0.000007796724
56	1	0.000002598908
57	2	0.000005197816
60	6	0.000015593448
64	1	0.000002598908
66	6	0.000015593448
72	2	0.000005197816
78	1	0.000002598908
80	1	0.000002598908
91	1	0.000002598908
217	1	0.000002598908
288	1	0.000002598908

So, n=1311 out of the 384,777 unique participants in the Initiation data had at least one felony murder charge, with most of those (1136) having two or more such charges.

Let's check these figures by race.

```
Initiationsub4 %>%
  tabyl(bin_fmr, i_race) %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns() %>%
  gt()%>%
  tab_header(
    title = md("**Initiation: Number of Felony Murder Rule Charges by Race**"
))%>%
#Should add footnote that two cases appeared to have missing charge dispositi
on & were not shown
tab_footnote(
    footnote = "**Data are from all cases in Cook County between X date and J
uly 1, 2021. Analyis examines a participant-charge level file with merged and
filtered data containing initiation, disposition, and sentencing stages for a
ll participants who have at least one felony murder rule (FMR) charge. Two ca
ses appeared to have missing charge disposition information and thus were not
shown**",
    locations = cells_column_labels(bin_fmr)
 )
```

We might wish to make this table easier to read by collapsing some of the race/ethnicity categories. First, we will recode the "i_race" variable into a newly recoded "ethrace_r" variable with collapsed categories.

```
Initiationsub4 <- Initiationsub4 %>%
  mutate(ethrace_r = i_race,
         ethrace_r = if_else(i_race %in% c("White", "CAUCASIAN"), "White/Cauc
asian", ethrace_r),
         ethrace_r = if_else(i_race %in% c("White [Hispanic or Latino]", "HIS
PANIC"), "Hispanic/Latino", ethrace_r),
         ethrace_r = if_else(i_race %in% c("Albino", "American Indian", "Asia
n", "ASIAN", "Biracial", "Unknown", "White/Black [Hispanic or Latino]"), "Mul
t/Oth/Unknown", ethrace_r),
         ethrace_r = if_else(is.na(i_race), "Mult/Oth/Unknown", ethrace_r)
         ) %>%
  mutate(
         ethrace_r = fct_infreq(ethrace_r)
  ) #did not seem to do what i wanted - made into factor & tried to reorder r
esults by frequency
```

Now we can regenerate the summary table using the newly recoded "ethrace_r" variable.

```
Table10<- Initiationsub4 %>%
  tabyl(bin_fmr, ethrace_r) %>%
  adorn_totals('row') %>%
```

```
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_label(
    "bin_fmr" = "FMR Charge Present") %>%
  tab_header(
    title = md("**TABLE 10: Initiation: Number of Felony Murder Rule Charges
by Race**")) %>%
tab_footnote(
    footnote = "**Data are from all cases in Cook County between X date and J
uly 1, 2021. Analyis examines a participant-charge level file with merged and
filtered data containing initiation, disposition, and sentencing stages for a
ll participants who have at least one felony murder rule (FMR) charge. Two ca
ses appeared to have missing charge disposition information and thus were not
shown**",
    locations = cells_column_labels(bin_fmr))

Table10 %>%
  gtsave(
    "Table10.png", expand = 10,
    path = here("Output")
  )
```

TABLE 10: Initiation: Number of Felony Murder Rule Charges by Race

FMR Charge Present[1]	Black	Hispanic/Latino	Mult/Oth/Unknown	White/Caucasian
0	253939 (99.61%)	64969 (99.67%)	9706 (99.86%)	54852 (99.83%)
1	992 (0.39%)	213 (0.33%)	14 (0.14%)	92 (0.17%)
Total	254931 (100.00%)	65182 (100.00%)	9720 (100.00%)	54944 (100.00%)

[1] **Data are from all cases in Cook County between X date and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR) charge. Two cases appeared to have missing charge disposition information and thus were not shown**

Find Extreme Cases

We may want to follow up on those participants with an extreme number of "felony murder rule" charges. The code below makes this process easier by filtering the data for extreme cases.

```
Initiationextr <- Initiationsub4 %>%
  filter(n_fmr>100)
view(Initiationextr)

Initiationextrchrg <- Initiation %>%
  filter(CASE_ID == "413172371067")
view(Initiationextrchrg)
```

The first example filters our participant-level subset datafile (i.e., containing their primary charge information and number of felony murder rule charges) to retain only participants with more than 100 felony murder rule charges.

The second example filters the original charge-level Initiation full datafile to retain all charges connected to one specific *CASE_ID* associated with an extreme number of felony murder rule charges - in this case, a participant who had 294 felony murder rule charges. Doing so results in a datafile of n=393 rows, indicating that this participant had n=393 total charges, of which n=294 were listed as felony murder rule charges.

Filter FMR Changes post-July 1 2021

Following many demands for criminal justice reform within Cook County, the SAFE-T was enacted on January 22 2021 in which the scope of the felony murder rule was restricted from the proximate cause theory to the agency theory. Therefore, in order to keep my analysis consistent, I choose to only examine data prior to July 1 2021, the date in which the legislation went into effect.

In order to filter my dataset to be before July 1 2021, I first created a dummy variable indicating whether "i_received_date" is in year 2021 or 2022.

```
#Tidy solution did not work
# Initiationsub4f <- Initiationsub4 %>%
#     unite(tmp, remove = F) %>%
#     mutate(year_dummy = +str_detect(tmp, "2021")) %>%
#     dplyr::select(-tmp)
# Check work below
# Initiationsub4f[str_detect(Initiationsub4f$i_received_date, "2021"), ]  # E
xtract matching rows with str_detect
# head(Initiationsub4f)

Initiationsub4f <- data.table(Initiationsub4)
search_string <- "2021"
search_string2 <- "2022"
Initiationsub4f[like(i_received_date, search_string) |
   like(i_received_date, search_string2),
   paste0(search_string,".Dummy") := 1]

Initiationsub4f[is.na(get(paste0(search_string,".Dummy"))), paste0(search_str
ing,".Dummy") := 0]
Initiationsub4f <- Initiationsub4f %>%
  mutate(year_dummy = `2021.Dummy`) %>%
  dplyr::select(-`2021.Dummy`)


Initiationsub4f[str_detect(Initiationsub4f$i_received_date, "2020"), ]

##        CASE_PARTICIPANT_ID    CHARGE_ID    i_case_id        i_received_dat
e
```

```
##     1:       1133964479084 420655698170 430623299209   1/1/2020 12:00:00 A
M
##     2:       1133965443047 420655746222 430623442783   1/1/2020 12:00:00 A
M
##     3:       1133965804533 420655842325 430623586356   1/1/2020 12:00:00 A
M
##     4:       1133965925029 420655794274 430623729930   1/1/2020 12:00:00 A
M
##     5:       1133966407010 420655938428 430623873503   1/1/2020 12:00:00 A
M
##    ---
## 23478:       1170909926743 434245996675 439001530772 11/18/2020 12:00:00 A
M
## 23479:       1171354072686 434430370782 439107631588 10/18/2020 12:00:00 A
M
## 23480:       1171354193181 434432437002 439107631588 10/18/2020 12:00:00 A
M
## 23481:       1171859189288 434674473065 439227802607  7/13/2020 12:00:00 A
M
## 23482:       1171932811960 434705754676 439248333618  5/28/2020 12:00:00 A
M
##                    i_offense_category i_primary_charge_flag
##     1:  UUW - Unlawful Use of Weapon                  TRUE
##     2: Reckless Discharge of Firearm                  TRUE
##     3:  UUW - Unlawful Use of Weapon                  TRUE
##     4:  UUW - Unlawful Use of Weapon                  TRUE
##     5:  UUW - Unlawful Use of Weapon                  TRUE
##    ---
## 23478:            Aggravated Battery                  TRUE
## 23479:          Residential Burglary                  TRUE
## 23480:          Residential Burglary                  TRUE
## 23481:                      Burglary                  TRUE
## 23482:    Escape - Failure to Return                  TRUE
##
i_charge_offense_title
##     1:
AGG UUW/LOADED/NO FCCA/FOID
##     2:                                                                RECK
LESS DISCHARGE OF A FIREARM
##     3:
AGG UUW/LOADED/NO FCCA/FOID
##     4:                                                              AGGRAV
ATED UNLAWFUL USE OF WEAPON
##     5:
AGG UUW/LOADED/NO FCCA/FOID
##    ---
## 23478:
AGGRAVATED BATTERY
## 23479:                                                                   C
ONTINUING FIN CRIME ENTRPRS
```

```
## 23480:                                                                 C
ONTINUING FIN CRIME ENTRPRS
## 23481:
BURGLARY
## 23482: ESCAPE; FAILURE TO COMPLY WITH A CONDITION OF THE ELECTRONIC HOME M
ONITORING DETENTION PROGRAM
##        i_chapter i_act     i_section i_age_at_incident
##     1:       720     5  24-1.6(a)(1)                21
##     2:       720     5     24-1.5(a)                30
##     3:       720     5  24-1.6(a)(1)                21
##     4:       720     5  24-1.6(a)(1)                29
##     5:       720     5  24-1.6(a)(1)                26
##    ---
## 23478:       720     5 12-3.05(d)(5)                23
## 23479:       720     5    17-10.6(h)                NA
## 23480:       720     5    17-10.6(h)                NA
## 23481:       720     5       19-1(a)                43
## 23482:       730     5   5-8A-4.1(a)                25
##                            i_race i_gender n_fmr bin_fmr        ethrace_r
##     1:                       Black     Male     0       0            Black
##     2: White [Hispanic or Latino]     Male     0       0  Hispanic/Latino
##     3: White [Hispanic or Latino]     Male     0       0  Hispanic/Latino
##     4:                       Black     Male     0       0            Black
##     5:                       Black     Male     0       0            Black
##    ---
## 23478:                        <NA>     <NA>     0       0 Mult/Oth/Unknown
## 23479:                       Black   Female     0       0            Black
## 23480:                       Black   Female     0       0            Black
## 23481:                       White     Male     0       0  White/Caucasian
## 23482:                       Black     Male     0       0            Black
##        year_dummy
##     1:          0
##     2:          0
##     3:          0
##     4:          0
##     5:          0
##    ---
## 23478:          0
## 23479:          0
## 23480:          0
## 23481:          0
## 23482:          0

head(Initiationsub4f)

##    CASE_PARTICIPANT_ID    CHARGE_ID    i_case_id       i_received_date
## 1:        267303922044 246067210317 213054745979 5/24/2011 12:00:00 AM
## 2:        267304042539 330957190910 213054745979 5/24/2011 12:00:00 AM
## 3:        279675181942  93722062489 218442915841 1/27/2012 12:00:00 AM
## 4:        279385631562 319260126648 231620953066 1/31/2011 12:00:00 AM
```

```
## 5:        888148858310 319258973409 231620953066 1/31/2011 12:00:00 AM
## 6:        279938343835 182150036586 234706634717 4/15/2011 12:00:00 AM
##    i_offense_category i_primary_charge_flag
## 1:  PROMIS Conversion                 TRUE
## 2:  PROMIS Conversion                 TRUE
## 3:  PROMIS Conversion                 TRUE
## 4:  PROMIS Conversion                 TRUE
## 5:  PROMIS Conversion                 TRUE
## 6:  PROMIS Conversion                 TRUE
##
i_charge_offense_title
## 1:                                                                 MU
RDER=720-5\\9-1(A)(1-3)
## 2:
FIRST DEGREE MURDER
## 3:                                                               AGG CR
IM SEX ASLT/BODILY HARM
## 4: [POSSESSION OF CONTROLLED SUBSTANCE WITH INTENT TO DELIVER/DELIVERY OF
A CONTROLLED SUBSTANCE]
## 5:                           [POSSESSION OF CANNABIS WITH INTENT TO DELIVE
R/DELIVERY OF CANNABIS]
## 6:                                                        PROSTITUTION\\2
ND (EFFECTIVE 1-1-2000)
##    i_chapter i_act    i_section i_age_at_incident   i_race i_gender n_fmr
## 1:       MUR    NA         <NA>                25    Black     Male     0
## 2:       720     5    9-1(a)(1)                22    Black     Male    27
## 3:       720     5  12-14(A)(2)                NA    Black     Male     0
## 4:       720   570 401(a)(2)(D)                37 HISPANIC     Male     0
## 5:       720   550         5(f)                29 HISPANIC     Male     0
## 6:       720     5    11-14(A)2                24    Black   Female     0
##    bin_fmr       ethrace_r year_dummy
## 1:       0           Black          0
## 2:       1           Black          0
## 3:       0           Black          0
## 4:       0 Hispanic/Latino          0
## 5:       0 Hispanic/Latino          0
## 6:       0           Black          0

Initiationsub4f[str_detect(Initiationsub4f$i_received_date, "2021"), ]

##        CASE_PARTICIPANT_ID    CHARGE_ID    i_case_id        i_received_dat
e
##     1:       1154081181529 427287447853 435128922770   1/1/2021 12:00:00 A
M
##     2:       1154081784005 427287495905 435129066344   1/1/2021 12:00:00 A
M
##     3:       1154082145492 427287543956 435129209917   1/1/2021 12:00:00 A
M
##     4:       1154082627473 427287592008 435129353491  5/20/2021 12:00:00 A
M
```

```
##     5:       1154083229950 428328198119 435129497064   1/1/2021 12:00:00 A
M
##    ---
## 21312:       1172276946744 434883065193 439332467688 12/31/2021 12:00:00 A
M
## 21313:       1172279236156 434882969090 439332611262 12/31/2021 12:00:00 A
M
## 21314:       1172279597642 434883305451 439332754835 12/31/2021 12:00:00 A
M
## 21315:       1172313938824 434889215801 439341082098 12/22/2021 12:00:00 A
M
## 21316:       1172314420805 434889311905 439341225672 12/22/2021 12:00:00 A
M
##                   i_offense_category i_primary_charge_flag
##     1: UUW - Unlawful Use of Weapon                  TRUE
##     2: UUW - Unlawful Use of Weapon                  TRUE
##     3: UUW - Unlawful Use of Weapon                  TRUE
##     4:                    Narcotics                  TRUE
##     5: UUW - Unlawful Use of Weapon                  TRUE
##    ---
## 21312:                   Sex Crimes                  TRUE
## 21313: UUW - Unlawful Use of Weapon                  TRUE
## 21314: UUW - Unlawful Use of Weapon                  TRUE
## 21315:                     Burglary                  TRUE
## 21316:                     Burglary                  TRUE
##                                i_charge_offense_title i_chapter i_act
##     1:                     AGG UUW/LOADED/NO FCCA/FOID       720     5
##     2:                AGGRAVATED UNLAWFUL USE OF WEAPON       720     5
##     3:         DEFACING IDENTIFICATION MARKS OF FIREARMS       720     5
##     4:                     AGG UUW/LOADED/NO FCCA/FOID       720     5
##     5:                AGGRAVATED UNLAWFUL USE OF WEAPON       720     5
##    ---
## 21312:               AGGRAVATED CRIMINAL SEXUAL ASSAULT       720     5
## 21313: UNLAWFUL USE OR POSSESSION OF A WEAPON BY A FELON       720     5
## 21314:               AGGRAVATED UNLAWFUL USE OF WEAPON       720     5
## 21315:                                        BURGLARY       720     5
## 21316:                                        BURGLARY       720     5
##            i_section i_age_at_incident                      i_race i_gender
##     1:  24-1.6(a)(1)                19                       Black     Male
##     2:  24-1.6(a)(1)                27                        <NA>     <NA>
##     3:       24-5(b)                22                       Black     Male
##     4:  24-1.6(a)(1)                24 White [Hispanic or Latino]     Male
##     5:  24-1.6(a)(1)                25                       Black     Male
##    ---
## 21312: 11-1.30(a)(1)                54                       Black     Male
## 21313:     24-1.1(a)                40                       Black     Male
## 21314:  24-1.6(a)(1)                21                        <NA>     Male
## 21315:       19-1(a)                49                       Black     Male
## 21316:       19-1(a)                49                       Black     Male
##        n_fmr bin_fmr        ethrace_r year_dummy
```

```
##     1:     0       0            Black          1
##     2:     0       0 Mult/Oth/Unknown          1
##     3:     0       0            Black          1
##     4:     0       0  Hispanic/Latino          1
##     5:     0       0            Black          1
##    ---
## 21312:     0       0            Black          1
## 21313:     0       0            Black          1
## 21314:     0       0 Mult/Oth/Unknown          1
## 21315:     0       0            Black          1
## 21316:     0       0            Black          1

head(Initiationsub4f)

##    CASE_PARTICIPANT_ID    CHARGE_ID    i_case_id       i_received_date
## 1:        267303922044 246067210317 213054745979 5/24/2011 12:00:00 AM
## 2:        267304042539 330957190910 213054745979 5/24/2011 12:00:00 AM
## 3:        279675181942  93722062489 218442915841 1/27/2012 12:00:00 AM
## 4:        279385631562 319260126648 231620953066 1/31/2011 12:00:00 AM
## 5:        888148858310 319258973409 231620953066 1/31/2011 12:00:00 AM
## 6:        279938343835 182150036586 234706634717 4/15/2011 12:00:00 AM
##    i_offense_category i_primary_charge_flag
## 1:  PROMIS Conversion                 TRUE
## 2:  PROMIS Conversion                 TRUE
## 3:  PROMIS Conversion                 TRUE
## 4:  PROMIS Conversion                 TRUE
## 5:  PROMIS Conversion                 TRUE
## 6:  PROMIS Conversion                 TRUE
##
i_charge_offense_title
## 1:                                                                    MU
RDER=720-5\\9-1(A)(1-3)
## 2:
FIRST DEGREE MURDER
## 3:                                                                AGG CR
IM SEX ASLT/BODILY HARM
## 4: [POSSESSION OF CONTROLLED SUBSTANCE WITH INTENT TO DELIVER/DELIVERY OF
A CONTROLLED SUBSTANCE]
## 5:                            [POSSESSION OF CANNABIS WITH INTENT TO DELIVE
R/DELIVERY OF CANNABIS]
## 6:                                                        PROSTITUTION\\2
ND (EFFECTIVE 1-1-2000)
##    i_chapter i_act    i_section i_age_at_incident   i_race i_gender n_fmr
## 1:       MUR    NA         <NA>                25    Black     Male     0
## 2:       720     5    9-1(a)(1)                22    Black     Male    27
## 3:       720     5  12-14(A)(2)                NA    Black     Male     0
## 4:       720   570 401(a)(2)(D)                37 HISPANIC     Male     0
## 5:       720   550         5(f)                29 HISPANIC     Male     0
## 6:       720     5    11-14(A)2                24    Black   Female     0
##    bin_fmr       ethrace_r year_dummy
```

```
## 1:       0           Black          0
## 2:       1           Black          0
## 3:       0           Black          0
## 4:       0 Hispanic/Latino          0
## 5:       0 Hispanic/Latino          0
## 6:       0           Black          0
```

```
Initiationsub4f[str_detect(Initiationsub4f$i_received_date, "2022"), ]
```

```
##     CASE_PARTICIPANT_ID    CHARGE_ID    i_case_id      i_received_date
##  1:       1172281405073 434883017141 439333185556 1/1/2022 12:00:00 AM
##  2:       1172282007550 434883161296 439333329129 1/1/2022 12:00:00 AM
##  3:       1172282851017 434883209348 439333472703 1/1/2022 12:00:00 AM
##  4:       1172283332999 434883545709 439333616276 1/1/2022 12:00:00 AM
##  5:       1172283453494 434883497657 439333616276 1/1/2022 12:00:00 AM
##  6:       1172283935476 434883257399 439333759850 1/1/2022 12:00:00 AM
##  7:       1172284296962 434883353503 439333903423 1/1/2022 12:00:00 AM
##  8:       1172284778943 434883449606 439334046997 1/1/2022 12:00:00 AM
##  9:       1172284899439 434883401554 439334190570 1/1/2022 12:00:00 AM
## 10:       1172285742906 434883593761 439334477717 1/1/2022 12:00:00 AM
## 11:       1172286104392 434883641812 439334621291 1/1/2022 12:00:00 AM
## 12:       1172286586374 434883689864 439334764864 1/1/2022 12:00:00 AM
## 13:       1172287188851 434883737916 439334908438 1/1/2022 12:00:00 AM
## 14:       1172287309346 434883834019 439335052011 1/1/2022 12:00:00 AM
## 15:       1172288393805 434883930122 439335195585 1/1/2022 12:00:00 AM
## 16:       1172288755291 434883978174 439335339158 1/1/2022 12:00:00 AM
## 17:       1172288875786 434884026225 439335482732 1/1/2022 12:00:00 AM
## 18:       1172290201235 434884074277 439335626305 1/1/2022 12:00:00 AM
## 19:       1172290803712 434884122329 439335769879 1/1/2022 12:00:00 AM
## 20:       1172290924207 434884218432 439335913452 1/1/2022 12:00:00 AM
## 21:       1172292008666 434884170380 439336057026 1/1/2022 12:00:00 AM
## 22:       1172292370152 434884266484 439336200599 1/1/2022 12:00:00 AM
## 23:       1172292852133 434884458690 439336344173 1/1/2022 12:00:00 AM
## 24:       1172292972629 434884410638 439336344173 1/1/2022 12:00:00 AM
## 25:       1172293334115 434884362587 439336487746 1/1/2022 12:00:00 AM
## 26:       1172293454610 434884314535 439336487746 1/1/2022 12:00:00 AM
## 27:       1172294780059 434884506742 439336774893 1/1/2022 12:00:00 AM
## 28:       1172295141545 434884650897 439336918467 1/1/2022 12:00:00 AM
## 29:       1172295744022 434884698948 439337062040 1/1/2022 12:00:00 AM
## 30:       1172296346499 434884747000 439337205614 1/1/2022 12:00:00 AM
## 31:       1172296828481 434884843103 439337349187 1/1/2022 12:00:00 AM
## 32:       1172297310462 434884939206 439337492761 1/1/2022 12:00:00 AM
## 33:       1172297671948 434885275568 439337636334 1/1/2022 12:00:00 AM
## 34:       1172298876902 434884987258 439337779908 1/1/2022 12:00:00 AM
## 35:       1172300202351 434885083361 439337923481 1/1/2022 12:00:00 AM
## 36:       1172300563837 434886861272 439338067055 1/1/2022 12:00:00 AM
## 37:       1172301527800 434887774253 439338497775 1/1/2022 12:00:00 AM
## 38:       1172302009782 434886621013 439338641349 1/1/2022 12:00:00 AM
## 39:       1172302973745 434888639182 439338784922 1/1/2022 12:00:00 AM
## 40:       1172303214735 434887822304 439338928496 1/1/2022 12:00:00 AM
```

```
## 41:       1172304299194 434888014511 439339215643 1/1/2022 12:00:00 AM
## 42:       1172305624643 434887870356 439339359216 1/2/2022 12:00:00 AM
## 43:       1172306106624 434887966459 439339502790 1/2/2022 12:00:00 AM
## 44:       1172306709101 434888062562 439339646363 1/2/2022 12:00:00 AM
## 45:       1172307311578 434888110614 439339789937 1/2/2022 12:00:00 AM
## 46:       1172307673064 434888302821 439339933510 1/2/2022 12:00:00 AM
## 47:       1172308516532 434888591130 439340077084 1/2/2022 12:00:00 AM
## 48:       1172309480495 434888398924 439340220657 1/2/2022 12:00:00 AM
## 49:       1172309600990 434888446975 439340220657 1/2/2022 12:00:00 AM
## 50:       1172310564953 434888350872 439340364231 1/2/2022 12:00:00 AM
## 51:       1172311167430 434888687234 439340507804 1/2/2022 12:00:00 AM
## 52:       1172311890402 434889071647 439340651378 1/2/2022 12:00:00 AM
## 53:       1172312854365 434889359956 439340794951 1/2/2022 12:00:00 AM
## 54:       1172313336347 434889023595 439340938525 1/2/2022 12:00:00 AM
## 55:       1172315023282 434889792421 439341369245 1/2/2022 12:00:00 AM
## 56:       1172315143777 434889648266 439341369245 1/2/2022 12:00:00 AM
## 57:       1172315746254 434890176834 439341512819 1/2/2022 12:00:00 AM
## 58:       1172315987245 434890032679 439341656392 1/2/2022 12:00:00 AM
## 59:       1172316107740 434889984628 439341656392 1/2/2022 12:00:00 AM
## 60:       1172317312694 434890369041 439341943539 1/2/2022 12:00:00 AM
## 61:       1172317553685 434890465144 439342087113 1/2/2022 12:00:00 AM
## 62:       1172317915171 434890753454 439342230686 1/2/2022 12:00:00 AM
## 63:       1172318397152 434890801505 439342374260 1/2/2022 12:00:00 AM
## 64:       1172318758638 434890849557 439342517833 1/2/2022 12:00:00 AM
## 65:       1172319963592 434890897609 439342804980 1/3/2022 12:00:00 AM
## 66:       1172320566069 434890945660 439342948554 1/3/2022 12:00:00 AM
## 67:       1172320927555 434891041763 439343092127 1/3/2022 12:00:00 AM
## 68:       1172321530032 434890993712 439343235701 1/3/2022 12:00:00 AM
## 69:       1172322132509 434891137867 439343522848 1/3/2022 12:00:00 AM
## 70:       1172322493995 434891185918 439343666421 1/3/2022 12:00:00 AM
##     CASE_PARTICIPANT_ID    CHARGE_ID    i_case_id      i_received_date
##                           i_offense_category i_primary_charge_flag
##  1:              UUW - Unlawful Use of Weapon                  TRUE
##  2:              UUW - Unlawful Use of Weapon                  TRUE
##  3:              UUW - Unlawful Use of Weapon                  TRUE
##  4:              UUW - Unlawful Use of Weapon                  TRUE
##  5:              UUW - Unlawful Use of Weapon                  TRUE
##  6:              UUW - Unlawful Use of Weapon                  TRUE
##  7:              UUW - Unlawful Use of Weapon                  TRUE
##  8:              UUW - Unlawful Use of Weapon                  TRUE
##  9:              UUW - Unlawful Use of Weapon                  TRUE
## 10:              UUW - Unlawful Use of Weapon                  TRUE
## 11:              UUW - Unlawful Use of Weapon                  TRUE
## 12:              UUW - Unlawful Use of Weapon                  TRUE
## 13:              UUW - Unlawful Use of Weapon                  TRUE
## 14:                           Aggravated DUI                   TRUE
## 15:            Reckless Discharge of Firearm                  TRUE
## 16:              UUW - Unlawful Use of Weapon                  TRUE
## 17:              UUW - Unlawful Use of Weapon                  TRUE
## 18:        Aggravated Battery Police Officer                   TRUE
```

```
## 19: Driving With Suspended Or Revoked License                    TRUE
## 20:              UUW - Unlawful Use of Weapon                    TRUE
## 21:              UUW - Unlawful Use of Weapon                    TRUE
## 22:                              Aggravated DUI                  TRUE
## 23:              UUW - Unlawful Use of Weapon                    TRUE
## 24:              UUW - Unlawful Use of Weapon                    TRUE
## 25:              UUW - Unlawful Use of Weapon                    TRUE
## 26:              UUW - Unlawful Use of Weapon                    TRUE
## 27:         Aggravated Battery Police Officer                    TRUE
## 28:            Aggravated Fleeing and Eluding                    TRUE
## 29:              UUW - Unlawful Use of Weapon                    TRUE
## 30:              UUW - Unlawful Use of Weapon                    TRUE
## 31:              UUW - Unlawful Use of Weapon                    TRUE
## 32:                              Aggravated DUI                  TRUE
## 33:                            Attempt Homicide                  TRUE
## 34:                                Retail Theft                  TRUE
## 35:              UUW - Unlawful Use of Weapon                    TRUE
## 36:            Aggravated Fleeing and Eluding                    TRUE
## 37:                                   Burglary                   TRUE
## 38:                               Other Offense                  TRUE
## 39:              UUW - Unlawful Use of Weapon                    TRUE
## 40:              UUW - Unlawful Use of Weapon                    TRUE
## 41:         Aggravated Battery Police Officer                    TRUE
## 42:              UUW - Unlawful Use of Weapon                    TRUE
## 43:             Reckless Discharge of Firearm                    TRUE
## 44:                                   Burglary                   TRUE
## 45:              UUW - Unlawful Use of Weapon                    TRUE
## 46:         Aggravated Battery Police Officer                    TRUE
## 47:              Aggravated Discharge Firearm                    TRUE
## 48:              Aggravated Discharge Firearm                    TRUE
## 49:              Aggravated Discharge Firearm                    TRUE
## 50:                              Aggravated DUI                  TRUE
## 51:        Possession of Stolen Motor Vehicle                    TRUE
## 52:               Attempt Vehicular Hijacking                    TRUE
## 53:         Aggravated Battery With A Firearm                    TRUE
## 54:              UUW - Unlawful Use of Weapon                    TRUE
## 55:         Aggravated Battery Police Officer                    TRUE
## 56:         Aggravated Battery Police Officer                    TRUE
## 57:        Possession of Stolen Motor Vehicle                    TRUE
## 58:              UUW - Unlawful Use of Weapon                    TRUE
## 59:              UUW - Unlawful Use of Weapon                    TRUE
## 60:                                Retail Theft                  TRUE
## 61:                              Aggravated DUI                  TRUE
## 62:              UUW - Unlawful Use of Weapon                    TRUE
## 63:              UUW - Unlawful Use of Weapon                    TRUE
## 64:                                   Burglary                   TRUE
## 65:                                Retail Theft                  TRUE
## 66:              UUW - Unlawful Use of Weapon                    TRUE
## 67:                               Other Offense                  TRUE
## 68:         Aggravated Battery Police Officer                    TRUE
```

```
## 69:                              Aggravated DUI                   TRUE
## 70:                              Aggravated DUI                   TRUE
##                             i_offense_category i_primary_charge_flag
##
i_charge_offense_title
##  1:
AGGRAVATED UNLAWFUL USE OF WEAPON
##  2:
AGGRAVATED UNLAWFUL USE OF WEAPON
##  3:
AGGRAVATED UNLAWFUL USE OF WEAPON
##  4:
AGGRAVATED UNLAWFUL USE OF WEAPON
##  5:
AGG UUW/LOADED/NO FCCA/FOID
##  6:
AGG UUW/LOADED/NO FCCA/FOID
##  7:
AGGRAVATED UNLAWFUL USE OF WEAPON
##  8:
AGGRAVATED UNLAWFUL USE OF WEAPON
##  9:                                                                UNLAWFUL
USE OR POSSESSION OF A WEAPON BY A FELON
## 10:
AGG UUW/LOADED/NO FCCA/FOID
## 11:
AGG UUW/LOADED/NO FCCA/FOID
## 12:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 13:                                                               UNLAWFUL
USE OR POSSESSION OF A WEAPON BY A FELON
## 14:                                                               AGGRAVATE
D DRIVING UNDER THE INFLUENCE OF ALCOHOL
## 15:
RECKLESS DISCHARGE OF A FIREARM
## 16:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 17:                                                               UNLAWFUL
USE OR POSSESSION OF A WEAPON BY A FELON
## 18:
AGGRAVATED BATTERY
## 19: FELONY DRIVING WHILE DRIVER?S LICENSE, PERMIT, OR PRIVILEGE TO OPERATE
A MOTOR VEHICLE IS SUSPENDED OR REVOKED
## 20:                                                               UNLAWFUL
USE OR POSSESSION OF A WEAPON BY A FELON
## 21:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 22:                                                               AGGRAVATE
D DRIVING UNDER THE INFLUENCE OF ALCOHOL
## 23:
```

```
AGGRAVATED UNLAWFUL USE OF WEAPON
## 24:
AGG UUW/LOADED/NO FCCA/FOID
## 25:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 26:                                                                  D
EFACING IDENTIFICATION MARKS OF FIREARMS
## 27:
AGGRAVATED BATTERY
## 28:                                                  AGGRAVATED FLE
EING OR ATTEMPT TO ELUDE A PEACE OFFICER
## 29:
AGG UUW/LOADED/NO FCCA/FOID
## 30:                                                       UNLAWFUL
USE OR POSSESSION OF A WEAPON BY A FELON
## 31:
AGG UUW/LOADED/NO FCCA/FOID
## 32:                                                       AGGRAVATE
D DRIVING UNDER THE INFLUENCE OF ALCOHOL
## 33:
FIRST DEGREE MURDER
## 34:
RETAIL THEFT
## 35:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 36:                                                  AGGRAVATED FLE
EING OR ATTEMPT TO ELUDE A PEACE OFFICER
## 37:
BURGLARY
## 38:                                            POSSESSION OF ANOTHER
?S CREDIT, DEBIT, OR IDENTIFICATION CARD
## 39:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 40:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 41:
AGGRAVATED BATTERY
## 42:
ARMED VIOLENCE
## 43:
RECKLESS DISCHARGE OF A FIREARM
## 44:
BURGLARY
## 45:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 46:
AGGRAVATED BATTERY
## 47:
AGGRAVATED DISCHARGE OF A FIREARM
## 48:
```

```
AGGRAVATED DISCHARGE OF A FIREARM
## 49:
AGGRAVATED DISCHARGE OF A FIREARM
## 50:                                                                  AGGRAVATE
D DRIVING UNDER THE INFLUENCE OF ALCOHOL
## 51:
POSSESSION OF A STOLEN MOTOR VEHICLE
## 52:
VEHICULAR HIJACKING
## 53:
RECKLESS DISCHARGE OF A FIREARM
## 54:                                                                  UNLAWFUL
USE OR POSSESSION OF A WEAPON BY A FELON
## 55:
RESIST/PC OFF/CORR/FRFTR/INJ
## 56:
AGGRAVATED BATTERY
## 57:
ARMED HABITUAL CRIMINAL
## 58:                                                              AGGRAVATED FLE
EING OR ATTEMPT TO ELUDE A PEACE OFFICER
## 59:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 60:
RETAIL THEFT
## 61:                                                                  AGGRAVATE
D DRIVING UNDER THE INFLUENCE OF ALCOHOL
## 62:
AGGRAVATED UNLAWFUL USE OF WEAPON
## 63:
AGG UUW/LOADED/NO FCCA/FOID
## 64:
BURGLARY
## 65:
RETAIL THEFT
## 66:
ARMED HABITUAL CRIMINAL
## 67:
AGGRAVATED ASSAULT
## 68:
AGGRAVATED BATTERY
## 69:                                                                  AGGRAVATE
D DRIVING UNDER THE INFLUENCE OF ALCOHOL
## 70:                                                                  AGGRAVATE
D DRIVING UNDER THE INFLUENCE OF ALCOHOL
##
i_charge_offense_title
##     i_chapter i_act      i_section i_age_at_incident                    i
_race
##  1:       720     5   24-1.6(a)(1)                32
```

```
<NA>
##  2:       720     5   24-1.6(a)(1)                28
Black
##  3:       720     5   24-1.6(a)(1)                18
Black
##  4:       720     5   24-1.6(a)(1)                40
<NA>
##  5:       720     5   24-1.6(a)(1)                39
<NA>
##  6:       720     5   24-1.6(a)(1)                23
<NA>
##  7:       720     5   24-1.6(a)(1)                30
Black
##  8:       720     5   24-1.6(a)(2)                24 White [Hispanic or La
tino]
##  9:       720     5      24-1.1(a)                28
Black
## 10:       720     5   24-1.6(a)(1)                24
Black
## 11:       720     5   24-1.6(a)(1)                28
Black
## 12:       720     5   24-1.6(a)(2)                21
Black
## 13:       720     5      24-1.1(a)                24
Black
## 14:       625     5      11-501(a)                21
<NA>
## 15:       720     5      24-1.5(a)                41
Black
## 16:       720     5   24-1.6(a)(1)                29
Black
## 17:       720     5      24-1.1(a)                47
Black
## 18:       720     5  12-3.05(d)(4)                27
Black
## 19:       625     5       6-303(a)                28 White [Hispanic or La
tino]
## 20:       720     5      24-1.1(a)                37
<NA>
## 21:       720     5   24-1.6(a)(2)                25
Black
## 22:       625     5      11-501(a)                28
<NA>
## 23:       720     5   24-1.6(a)(1)                31
Black
## 24:       720     5   24-1.6(a)(1)                25
Black
## 25:       720     5   24-1.6(a)(2)                19
<NA>
## 26:       720     5        24-5(b)                20
```

```
<NA>
## 27:       720     5  12-3.05(d)(4)                23
White
## 28:       625     5 11-204.1(a)(4)                24
Black
## 29:       720     5   24-1.6(a)(1)                30
Black
## 30:       720     5      24-1.1(a)                36
Black
## 31:       720     5   24-1.6(a)(1)                34
Black
## 32:       625     5      11-501(a)                24
Black
## 33:       720     5      9-1(a)(1)                71
Black
## 34:       720     5    16-25(a)(1)                57
Black
## 35:       720     5   24-1.6(a)(1)                22
Black
## 36:       625     5 11-204.1(a)(4)                27
Black
## 37:       720     5        19-1(a)                22
White
## 38:       720     5       17-32(b)                21
Black
## 39:       720     5   24-1.6(a)(1)                28
White
## 40:       720     5   24-1.6(a)(1)                23
<NA>
## 41:       720     5  12-3.05(d)(4)                32
<NA>
## 42:       720     5       33A-2(a)                34
White
## 43:       720     5      24-1.5(a)                39
Black
## 44:       720     5        19-1(a)                39 White [Hispanic or La
tino]
## 45:       720     5   24-1.6(a)(1)                30
<NA>
## 46:       720     5  12-3.05(d)(4)                42
Black
## 47:       720     5   24-1.2(a)(1)                19
Black
## 48:       720     5   24-1.2(a)(2)                22 White [Hispanic or La
tino]
## 49:       720     5   24-1.2(a)(2)                25 White [Hispanic or La
tino]
## 50:       625     5      11-501(a)                43
<NA>
## 51:       625     5    4-103(a)(1)                34                   HIS
```

```
PANIC
## 52:       720     5        18-3(a)                19
Black
## 53:       720     5      24-1.5(a)                36
Black
## 54:       720     5      24-1.1(a)                34
Black
## 55:       720     5      31-1(a-7)                20
Black
## 56:       720     5  12-3.05(d)(4)                20
Black
## 57:       720     5      24-1.7(a)                27
Black
## 58:       625     5 11-204.1(a)(3)                23
Black
## 59:       720     5   24-1.6(a)(1)                22
Black
## 60:       720     5    16-25(a)(1)                25
Black
## 61:       625     5      11-501(a)                41
Black
## 62:       720     5   24-1.6(a)(1)                32
Black
## 63:       720     5   24-1.6(a)(1)                21
Black
## 64:       720     5        19-1(a)                35
<NA>
## 65:       720     5    16-25(a)(1)                56
Black
## 66:       720     5      24-1.7(a)                37
Black
## 67:       720     5     12-2(c)(7)                49
<NA>
## 68:       720     5  12-3.05(d)(6)                28
<NA>
## 69:       625     5      11-501(a)                27
Asian
## 70:       625     5      11-501(a)                36
<NA>
##     i_chapter i_act      i_section i_age_at_incident                    i
_race
##     i_gender n_fmr bin_fmr        ethrace_r year_dummy
##  1:     <NA>     0       0 Mult/Oth/Unknown          1
##  2:     Male     0       0            Black          1
##  3:     Male     0       0            Black          1
##  4:     <NA>     0       0 Mult/Oth/Unknown          1
##  5:     <NA>     0       0 Mult/Oth/Unknown          1
##  6:     <NA>     0       0 Mult/Oth/Unknown          1
##  7:     Male     0       0            Black          1
##  8:     Male     0       0  Hispanic/Latino          1
```

```
##  9:     Male     0       0            Black          1
## 10:     Male     0       0            Black          1
## 11:     Male     0       0            Black          1
## 12:     Male     0       0            Black          1
## 13:     Male     0       0            Black          1
## 14:     <NA>     0       0 Mult/Oth/Unknown          1
## 15:     Male     0       0            Black          1
## 16:     Male     0       0            Black          1
## 17:     Male     0       0            Black          1
## 18:     Male     0       0            Black          1
## 19:     Male     0       0  Hispanic/Latino          1
## 20:     <NA>     0       0 Mult/Oth/Unknown          1
## 21:     Male     0       0            Black          1
## 22:     <NA>     0       0 Mult/Oth/Unknown          1
## 23:     Male     0       0            Black          1
## 24:     Male     0       0            Black          1
## 25:     <NA>     0       0 Mult/Oth/Unknown          1
## 26:     <NA>     0       0 Mult/Oth/Unknown          1
## 27:   Female     0       0  White/Caucasian          1
## 28:     Male     0       0            Black          1
## 29:     Male     0       0            Black          1
## 30:     Male     0       0            Black          1
## 31:     Male     0       0            Black          1
## 32:     Male     0       0            Black          1
## 33:     Male     0       0            Black          1
## 34:     Male     0       0            Black          1
## 35:     Male     0       0            Black          1
## 36:     Male     0       0            Black          1
## 37:     Male     0       0  White/Caucasian          1
## 38:     Male     0       0            Black          1
## 39:     Male     0       0  White/Caucasian          1
## 40:     <NA>     0       0 Mult/Oth/Unknown          1
## 41:     <NA>     0       0 Mult/Oth/Unknown          1
## 42:     Male     0       0  White/Caucasian          1
## 43:     Male     0       0            Black          1
## 44:     Male     0       0  Hispanic/Latino          1
## 45:     <NA>     0       0 Mult/Oth/Unknown          1
## 46:     Male     0       0            Black          1
## 47:     Male     0       0            Black          1
## 48:     Male     0       0  Hispanic/Latino          1
## 49:     Male     0       0  Hispanic/Latino          1
## 50:     <NA>     0       0 Mult/Oth/Unknown          1
## 51:     Male     0       0  Hispanic/Latino          1
## 52:     Male     0       0            Black          1
## 53:     Male     0       0            Black          1
## 54:     Male     0       0            Black          1
## 55:     Male     0       0            Black          1
## 56:   Female     0       0            Black          1
## 57:     Male     0       0            Black          1
## 58:     Male     0       0            Black          1
```

```
## 59:     Male     0       0            Black          1
## 60:     Male     0       0            Black          1
## 61:     Male     0       0            Black          1
## 62:     Male     0       0            Black          1
## 63:     Male     0       0            Black          1
## 64:     <NA>     0       0 Mult/Oth/Unknown          1
## 65:     Male     0       0            Black          1
## 66:     Male     0       0            Black          1
## 67:     <NA>     0       0 Mult/Oth/Unknown          1
## 68:     <NA>     0       0 Mult/Oth/Unknown          1
## 69:     Male     0       0 Mult/Oth/Unknown          1
## 70:     <NA>     0       0 Mult/Oth/Unknown          1
##     i_gender n_fmr bin_fmr        ethrace_r year_dummy

head(Initiationsub4f)

##    CASE_PARTICIPANT_ID    CHARGE_ID    i_case_id       i_received_date
## 1:        267303922044 246067210317 213054745979 5/24/2011 12:00:00 AM
## 2:        267304042539 330957190910 213054745979 5/24/2011 12:00:00 AM
## 3:        279675181942  93722062489 218442915841 1/27/2012 12:00:00 AM
## 4:        279385631562 319260126648 231620953066 1/31/2011 12:00:00 AM
## 5:        888148858310 319258973409 231620953066 1/31/2011 12:00:00 AM
## 6:        279938343835 182150036586 234706634717 4/15/2011 12:00:00 AM
##    i_offense_category i_primary_charge_flag
## 1:  PROMIS Conversion                  TRUE
## 2:  PROMIS Conversion                  TRUE
## 3:  PROMIS Conversion                  TRUE
## 4:  PROMIS Conversion                  TRUE
## 5:  PROMIS Conversion                  TRUE
## 6:  PROMIS Conversion                  TRUE
##
i_charge_offense_title
## 1:                                                                  MU
RDER=720-5\\9-1(A)(1-3)
## 2:
FIRST DEGREE MURDER
## 3:                                                               AGG CR
IM SEX ASLT/BODILY HARM
## 4: [POSSESSION OF CONTROLLED SUBSTANCE WITH INTENT TO DELIVER/DELIVERY OF
A CONTROLLED SUBSTANCE]
## 5:                            [POSSESSION OF CANNABIS WITH INTENT TO DELIVE
R/DELIVERY OF CANNABIS]
## 6:                                                        PROSTITUTION\\2
ND (EFFECTIVE 1-1-2000)
##    i_chapter i_act    i_section i_age_at_incident   i_race i_gender n_fmr
## 1:       MUR    NA         <NA>                25    Black     Male     0
## 2:       720     5    9-1(a)(1)                22    Black     Male    27
## 3:       720     5  12-14(A)(2)                NA    Black     Male     0
## 4:       720   570 401(a)(2)(D)                37 HISPANIC     Male     0
## 5:       720   550         5(f)                29 HISPANIC     Male     0
```

```
## 6:       720     5    11-14(A)2                24    Black   Female     0
##    bin_fmr       ethrace_r year_dummy
## 1:       0           Black          0
## 2:       1           Black          0
## 3:       0           Black          0
## 4:       0 Hispanic/Latino          0
## 5:       0 Hispanic/Latino          0
## 6:       0           Black          0
```

May need to get creative or change variable to "date" format to filter by months. For now, let's see how many fmr charges we lost. First, filter Sub4f data to drop where *year_dummy* = 1.

```
Initiationsub4f <- Initiationsub4f %>%
  filter(year_dummy == 0)

# Check work - should be zero rows
Initiationsub4f[str_detect(Initiationsub4f$i_received_date, "2021"), ]  # Ext
ract matching rows with str_detect

## Empty data.table (0 rows and 17 cols): CASE_PARTICIPANT_ID,CHARGE_ID,i_cas
e_id,i_received_date,i_offense_category,i_primary_charge_flag...

head(Initiationsub4f)

##    CASE_PARTICIPANT_ID    CHARGE_ID    i_case_id       i_received_date
## 1:        267303922044 246067210317 213054745979 5/24/2011 12:00:00 AM
## 2:        267304042539 330957190910 213054745979 5/24/2011 12:00:00 AM
## 3:        279675181942  93722062489 218442915841 1/27/2012 12:00:00 AM
## 4:        279385631562 319260126648 231620953066 1/31/2011 12:00:00 AM
## 5:        888148858310 319258973409 231620953066 1/31/2011 12:00:00 AM
## 6:        279938343835 182150036586 234706634717 4/15/2011 12:00:00 AM
##    i_offense_category i_primary_charge_flag
## 1:  PROMIS Conversion                 TRUE
## 2:  PROMIS Conversion                 TRUE
## 3:  PROMIS Conversion                 TRUE
## 4:  PROMIS Conversion                 TRUE
## 5:  PROMIS Conversion                 TRUE
## 6:  PROMIS Conversion                 TRUE
##
i_charge_offense_title
## 1:                                                                    MU
RDER=720-5\\9-1(A)(1-3)
## 2:
FIRST DEGREE MURDER
## 3:                                                                AGG CR
IM SEX ASLT/BODILY HARM
## 4: [POSSESSION OF CONTROLLED SUBSTANCE WITH INTENT TO DELIVER/DELIVERY OF
A CONTROLLED SUBSTANCE]
## 5:                          [POSSESSION OF CANNABIS WITH INTENT TO DELIVE
R/DELIVERY OF CANNABIS]
## 6:                                                        PROSTITUTION\\2
```

```
ND (EFFECTIVE 1-1-2000)
##    i_chapter i_act    i_section i_age_at_incident   i_race i_gender n_fmr
## 1:       MUR    NA         <NA>                25    Black     Male     0
## 2:       720     5    9-1(a)(1)                22    Black     Male    27
## 3:       720     5  12-14(A)(2)                NA    Black     Male     0
## 4:       720   570 401(a)(2)(D)                37 HISPANIC     Male     0
## 5:       720   550         5(f)                29 HISPANIC     Male     0
## 6:       720     5    11-14(A)2                24    Black   Female     0
##    bin_fmr       ethrace_r year_dummy
## 1:       0           Black          0
## 2:       1           Black          0
## 3:       0           Black          0
## 4:       0 Hispanic/Latino          0
## 5:       0 Hispanic/Latino          0
## 6:       0           Black          0

Initiationsub4 %>% tabyl(bin_fmr) %>% gt()

Initiationsub4f %>% tabyl(bin_fmr) %>% gt()
```

It seems 81 participants with fmr charges had received dates in 2021 & 2022. Let's see if we can keep those in 2021 before July 1. We should be able to change the "i_received_date" column from a string to a date format using *lubridate* package (see here).

```
#Examples of date character strings from data
testdate <- "5/24/2011 12:00:00 AM"
testdate2 <- "1/1/2011 12:00:00 AM "

#lubridate converts to date format
  mdy_hms(testdate)

## [1] "2011-05-24 UTC"

  mdy_hms(testdate2)

## [1] "2011-01-01 UTC"

#drop time (UTC)
  as_date(mdy_hms(testdate2))

## [1] "2011-01-01"

#FAILS - ABORTS R SESSION
# Initiationsub4f <- Initiationsub4 %>%
#   as_datetime(Initiationsub4$i_received_date)

#FAILS
# Initiationsub4f <- Initiationsub4 %>%
#   mdy_hms("i_received_date")

# FAILS
# Initiationsub4f <- Initiationsub4 %>%
```

```
#   mdy_hms(Initiationsub4$i_received_date)

#FAILS
# Initiationsub4 <- Initiationsub4 %>%
#   mutate(
#     i_rec_date2 = mdy_hms(Initiationsub4$i_received_date)
#   )

#FAILS
 # Initiationsub4f2 <- Initiationsub4 %>%
 #  mutate(
 #    i_rec_date2 = mdy_hms(i_received_date)
 #  )

#FAILS
 # Initiationsub4f2 <- Initiationsub4 %>%
 #  mutate(
 #    i_rec_date2 = mdy_hms(as_datetime(i_received_date))
 #  )

#CANNOT FIND A TIDY SOLUTION DESPITE LUBRIDATE BEING PART OF TIDYVERSE

#BASE R SOLUTION WORKS, BUT BELOW NOT SAVED TO DATA
# mdy_hms(Initiationsub4$i_received_date)


#LUBRIDATE + BASE R WORKS (CANNOT GET TO WORK WITH PIPE & MUTATE)
Initiationsub4$i_rec_date2 <- as_date(mdy_hms(Initiationsub4$i_received_date)
)
```

Now that we have a “received date” column in date format, we should be able to create a dummy variable indicating whether a row is on/after 7/1/2021, then we can recreate our filtered dataset (Sub4f) using this more precise filtering dummy variable and, finally, we can check our felony murder charges again.

```
#Create dummy if received date is on or after July 1 2021
Initiationsub4 <- Initiationsub4 %>%
  mutate(fmrchg_7121 = ifelse(i_rec_date2 >= "2021-07-01", 1, 0))

#Save over filtered (Sub4f) dataset
Initiationsub4f <- Initiationsub4 %>%
  filter(fmrchg_7121 == 0)

Initiationsub4 %>% tabyl(bin_fmr) %>%
  adorn_totals('row') %>%
  gt() %>%
cols_label(
    "bin_fmr" = "FMR Charge Present",
    "n" = "Number of Individuals",
    "percent"= "Percent")
```

```
Table4 <- Initiationsub4 %>%
  tabyl(bin_fmr) %>%
  gt() %>%
cols_label(
    "bin_fmr" = "FMR Charge Present",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
tab_header(
    title = md("**TABLE 4: # of Participants with 1+ FMR Charge**")) %>%
 tab_footnote(
    footnote = "**Table 4 includes a count of participants with at least one
felony murder rule charge without filtering by recieve date. Table 4 was crea
ted using a participant-level datafile created by filtering on primary charge
(after creating an indicator of the presence of an FMR charge), and removing
duplicates.**",
    locations = cells_column_labels(bin_fmr))

Table4 %>%
gtsave(
  "table4.png", expand=10,
  path = here("Output")
)
```

TABLE 4: # of Participants with 1+ FMR Charge

FMR Charge Present[1]	Number of Individuals	Percent
0	383466	0.996592832
1	1311	0.003407168

[1] **Table 4 includes a count of participants with at least one felony murder rule charge without filtering by recieve date. Table 4 was created using a participant-level datafile created by filtering on primary charge (after creating an indicator of the presence of an FMR charge), and removing duplicates.**

```
Initiationsub4f %>% tabyl(bin_fmr) %>%
  adorn_totals('row') %>%
  gt() %>%
cols_label(
    "bin_fmr" = "FMR Charge Present",
    "n" = "Number of Individuals",
    "percent"= "Percent")

Table5 <- Initiationsub4f %>%
  tabyl(bin_fmr) %>%
  gt() %>%
cols_label(
    "bin_fmr" = "FMR Charge Present",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
tab_header(
    title = md("**TABLE 5: # of Participants with 1+ FMR Charge- Filtered wit
h Respect to Recieved Date**")) %>%
 tab_footnote(
```

```
    footnote = "**Table 5 includes a count of participants with at least one
felony murder rule charge by filtering out individuals with felony murder rul
e charges following the implementation of the SAFE-T Act, or July 1, 2021. Ta
ble 5 was created using a participant-level datafile created by filtering on
primary charge (after creating an indicator of the presence of an FMR charge)
, and removing duplicates.**",
    locations = cells_column_labels(bin_fmr))


Table5 %>%
gtsave(
  "table5.png", expand=10,
  path = here("Output")
)
```

TABLE 5: # of Participants with 1+ FMR Charge- Filtered with Respect to Recieved Date

FMR Charge Present[1]	Number of Individuals	Percent
0	374367	0.996605811
1	1275	0.003394189

[1] **Table 5 includes a count of participants with at least one felony murder rule charge by filtering out individuals with felony murder rule charges following the implementation of the SAFE-T Act, or July 1, 2021. Table 5 was created using a participant-level datafile created by filtering on primary charge (after creating an indicator of the presence of an FMR charge), and removing duplicates.**

The total dataset dropped from 384,777 to 375,642 participants, whereas the number of participants with felony murder rule charges dropped from 1,311 to 1,275 after removing those with received dates on or after July 1, 2021.

Recall, there were 81 participants with felony murder rule charges in 2021 and 2022 (i.e., on or after 1/1/2021), but only 36 participants with such charges after July 1, 2021. This means that 45 participants were charged with felony murder rule in the first six months of 2021 prior to the more restrictive definition taking effect. After the law change, 36 participants were charged with the felony murder rule in the subsequent six months (approximately - the most recent received date in the data is 01/03/2022).

It may be interesting to use charge-level data (below - Sub5) to see how many felony murder rule charges occur in each six-month increment in the data (e.g., before and after the law change).

Racial/ethnic diffs in FMR charge present

```
Table10 <- Initiationsub4f %>%
  tabyl(bin_fmr, ethrace_r) %>%
  adorn_totals('row') %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()%>%
      cols_label(
    "bin_fmr" = "FMR Charge Present") %>%
```

```
  tab_header(
    title = md("**TABLE 10: Initiation: Number of Felony Murder Rule Charges
by Race**")) %>%
 tab_footnote(
    footnote = "**Participant-level datafile created by filtering on primary
charge (after creating an indicator of the presence of an FMR charge), removi
ng duplicates, and removing cases that occurred after July 1, 2021.**",
    locations = cells_column_labels(bin_fmr))


Table10 %>%
  gtsave(
    "Table10.png", expand = 10,
    path = here("Output")
  )
```

TABLE 10: Initiation: Number of Felony Murder Rule Charges by Race

FMR Charge Present[1]	Black	Hispanic/Latino	Mult/Oth/Unknown	White/Caucasian
0	247771 (99.61%)	63471 (99.67%)	9181 (99.86%)	53944 (99.83%)
1	962 (0.39%)	208 (0.33%)	13 (0.14%)	92 (0.17%)
Total	248733 (100.00%)	63679 (100.00%)	9194 (100.00%)	54036 (100.00%)

[1] **Participant-level datafile created by filtering on primary charge (after creating an indicator of the presence of an FMR charge), removing duplicates, and removing cases that occurred after July 1, 2021.**

Disposition: Wrangle & Summarize

Sub2: All Felony Murder (1, 2, and 3 aka "felony murder rule") Charges Within the Disposition Stage

Now we will repeat the process above for the disposition data (here), followed by the sentencing data (next section).

Once again, we start by creating a "Sub2" (i.e., data "subset #2") datafile by filtering the disposition data to keep only those rows in which the variable "d_section" has a value of "9-1(a)(1)" or "9-1(a)(2)" or ""9-1(a)(3)." This should retain *all* first degree murder charges - not just "felony murder rule" charges. Recall, according to Illinois statutes, charges filed under section 9-1(a)(3) can be considered any charges filed under the felony murder rule (see here).

Additionally, recall that these are charge-level data at the disposition stage. The disposition stage can be considered the status of an arrest or final outcome of a criminal proceeding. In these data, one participant can/often does have multiple rows corresponding to multiple charges - even many of same type (e.g., multiple charges corresponding to the felony murder rule for the same participant). Later, we will likely want to wrangle the data (e.g., using pivot_wider) to transform into participant-level data (i.e., one row per participant) as we did above with the initiation data.

```
Dispositionsub2 <- Dispositionsub1 %>%
  filter(d_charged_section == "9-1(a)(1)" | d_charged_section == "9-1(a)(2)"
| d_charged_section == "9-1(a)(3)")
```

```
head(Dispositionsub2) %>%
gt() %>%
tab_header(
    title = md("**Disposition: All Felony Murder Charges**"))
```

Frequency Tables for All Felony Murder Charges Within the Disposition Stage

Now, let's create a simple frequency table to count how many felony murder charges there are in this disposition data by type (1, 2, or 3).

```
Dispositionsub2 %>%
  tabyl(d_charged_section) %>%
gt() %>%
  cols_label(
    "d_charged_section" = "Statute Charged",
    "n" = "Number of Charges",
    "percent"= "Percent") %>%
  tab_header(
    title = md("**Disposition: Frequency of Each Felony Murder Staute**"))%>%
 tab_footnote(
    footnote = "**Cases charged under the Felony Murder Rule are charged unde
r section number 9-1(a)(3)**",
    locations = cells_column_labels(d_charged_section))
```

Recall, there were n=11,334 felony murder rule charges ("9-1(a)(3)") in the initiation data. By disposition stage, that number is reduced to n=6006, which seems to suggest that approximately half (47%) of the felony murder rule charges did not make it to the disposition stage. Some reasons for this might include: preliminary hearings found no probable cause; grand jury resulted in no indictment; initial pleas resulted in diversion. Eventually, we will want to merge these datasets to see if we can figure out what happened to those cases.
For now, let's continue focusing on the diversion data itself. As with initiation, we begin by creating a simple cross-tabulation table to calculate felony murder charge counts by participant's race. Again, remember the important distinction that these are the number of charges at disposition stage by race - not the number of participants by race with a particular charge.

```
#simple two-way table
Dispositionsub2 %>%
  tabyl(d_charged_section, d_race) %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 1) %>%
  adorn_ns() %>%
 gt()%>%
  cols_label(
    "d_charged_section" = "Statute") %>%
  tab_header(
    title = md("**Disposition: All Felony Murder Cases by Race**"))%>%
 tab_footnote(
```

```
    footnote = "**Cases charged under the Felony Murder Rule are charged unde
r section number 9-1(a)(3)**",
    locations = cells_column_labels(d_charged_section)
 )
```

Now, let's move toward creating a participant-level datafile (Sub4) that retains information on the primary charge and also includes a count of the number of felony murder rule charges and a binary indicator of whether the participant had at least one felony murder charge.

Sub4: Participant-level File with Primary Charge + Number of Felony Murder Charges

As with the Initiation data, we will now limit our focus to the subset of participants with felony murder rule ("9-1(a)(3)") charges instead of all felony murders. This requires creation of a participant-level dataset so we can count the number of unique participants facing felony murder charges (instead of the number of charges).

To begin, we can start by simply tallying up the number of felony murder charges each unique participant has listed as we did for the initiation file. To do so, we first group our data by the unique participant ID variable, then we create a tally variable with the useful add_tally function. This loops through each unique participant ID, tallies the number of rows within each participant with a "9-1(a)(3)" value for the "d_charged_section" variable (indicating a felony murder charge), then creates a new variable (column) with this tally, and finally renames the tally variable from "n" to "d_n_fmr" (for number of felony murder rule charges in disposition data).

```
Dispositionsub4 <- Dispositionsub1 %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  add_tally(d_charged_section == "9-1(a)(3)") %>%
  rename(d_n_fmr = n)

head(Dispositionsub4) %>% gt()
```

Now we keep only the row containing a participant's primary charge. If a participant can only have one primary charge in the disposition data, then this will result in a participant-level dataset.

```
Dispositionsub4 <- Dispositionsub4 %>%
  filter(d_primary_charge_flag == "TRUE")

head(Dispositionsub4) %>%
gt() %>%
  tab_header(
    title = md("**Disposition: Participant's Primary Charge**"))
```

This dropped our disposition datafile from n=889,873 charges to n=316,284 primary charges and (hopefully) participants. Let's double-check to make sure we do not have any duplicate participant IDs.

```
tabyl(duplicated(Dispositionsub4$CASE_PARTICIPANT_ID)) %>% gt()
```

As expected, all participant IDs are unique in our new "Sub4" disposition dataset! Now, let's see how many participants have one or more felony murder rule charges at the disposition stage.

Count of Felony Murder Rule Charges by Participant

```
Dispositionsub4 <- Dispositionsub4 %>%
  mutate(d_bin_fmr = d_n_fmr,
         d_bin_fmr = ifelse(d_n_fmr > 0, 1, 0))

Dispositionsub4 %>% tabyl(d_n_fmr) %>%
  gt() %>%
  cols_label(
    "d_n_fmr" = "Number of FMR Charges",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
    tab_header(
    title = md("**Disposition: Count of Felony Murder Rule Charges**"))

Dispositionsub4 %>% tabyl(d_bin_fmr) %>%
  gt() %>%
    cols_label(
    "d_bin_fmr" = "FMR Charge Present",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
  tab_header(
    title = md("**Disposition: Comparison of Felony Murder Charges**"))
```

So, out of the 316,284 unique participants in the Disposition data, n=734 had at least one felony murder charge, with most of those (634) having two or more such charges.

NOTE: WHAT IS HAPPENING TO ALL THESE FMR CHARGES? HALF DROP BEFORE DISPOSITION

Let's check these figures by race.

```
Dispositionsub4 %>%
  tabyl(d_bin_fmr, d_race) %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns() %>%
  gt() %>%
    cols_label(
    "d_bin_fmr" = "FMR Charge Present")
```

As with the initiation data, we will make these comparisons easier to read by collapsing some of the race/ethnicity categories. First, we will recode the "d_race" variable into a newly recoded "d_ethrace_r" variable with collapsed categories.

```
Dispositionsub4 <- Dispositionsub4 %>%
  mutate(d_ethrace_r = d_race,
         d_ethrace_r = if_else(d_race %in% c("White", "CAUCASIAN"), "White/Ca
```

```
ucasian", d_ethrace_r),
         d_ethrace_r = if_else(d_race %in% c("White [Hispanic or Latino]", "H
ISPANIC"), "Hispanic/Latino", d_ethrace_r),
         d_ethrace_r = if_else(d_race %in% c("Albino", "American Indian", "As
ian", "ASIAN", "Biracial", "Unknown", "White/Black [Hispanic or Latino]"), "M
ult/Oth/Unknown", d_ethrace_r),
         d_ethrace_r = if_else(is.na(d_race), "Mult/Oth/Unknown", d_ethrace_r
)
         ) %>%
  mutate(
         d_ethrace_r = fct_infreq(d_ethrace_r)
  ) #did not seem to do what i wanted - made into factor & tried to reorder r
esults by frequency
```

Now we can regenerate the summary table using the newly recoded d_ethrace_r variable.

```
Dispositionsub4 %>%
  tabyl(d_bin_fmr, d_ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()%>%
      cols_label(
    "d_bin_fmr" = "FMR Charge Present") %>%
  tab_header(
    title = md("**Disposition: Number of Felony Murder Rule Charges by Race**
"))
```

Felony murder rule charges are relatively uncommon at disposition stage, with only n=734 out of more than 200,000 participants, or less than one-quarter of one percent (0.23%), having at least one felony murder rule charge. Of those with at least one such charge, Black participants (0.26%) were nearly twice as likely (1.86) to have a felony murder rule charge compared to White/Caucasian participants (0.14%). …

Sentencing: Wrangle & Summarize

Sub2: All Felony Murder (1, 2, and 3 aka "felony murder rule") Charges Resulting in Sentencing

We now repeat the above process for a third time with the sentencing data. Once again, we start by creating a "Sub2" (i.e., data "subset #2") datafile by filtering the disposition data to keep only those rows in which the variable "s_disposition_charge_section" has a value of "9-1(a)(1)" or "9-1(a)(2)" or ""9-1(a)(3)" to retain all first degree murder charges - not just "felony murder rule" charges (see here).

As with initiation and disposition data, recall that we start with charge-level data at the sentencing stage in which one participant can/often does have multiple rows corresponding to

multiple charges - even many of same type (e.g., multiple charges corresponding to the felony murder rule for the same participant). As before, we will eventually wrangle the data to try to transform into participant-level data by keeping only the primary charge information and a frequency and binary indicator of felony murder rule charges.

```
Sentencingsub2 <- Sentencingsub1 %>%
  filter(s_disposition_charge_section == "9-1(a)(1)" | s_disposition_charge_s
ection == "9-1(a)(2)" | s_disposition_charge_section == "9-1(a)(3)")

head(Sentencingsub2) %>%

 gt() %>%
  tab_header(
    title = md("**Sentencing: All Felony Murder Charges**"))
```

Frequency Tables for All Felony Murder Charges

As with the initiation and disposition data, we start with a simple frequency table to count how many felony murder charges there are in these initiation data by type (1, 2, or 3).

```
Sentencingsub2 %>%
  tabyl(s_disposition_charge_section) %>%

gt() %>%
   cols_label(
    "s_disposition_charge_section" = "Statute Charged",
    "n" = "Number of Charges",
    "percent"= "Percent") %>%
  tab_header(
    title = md("**Sentencing: Frequency of Each Felony Murder Stautes**"))%>%
 tab_footnote(
    footnote = "**Cases charged under the Felony Murder Rule are charged unde
r section number 9-1(a)(3)**",
    locations = cells_column_labels(s_disposition_charge_section)
 )
```

Recall, there were n=11,334 felony murder rule charges (“9-1(a)(3)”) in the initiation data out of 1,041,304 total charges at initiation. This dropped to n=6,006 felony murder rule charges in the disposition data out of 889,873 total charges at disposition. By the sentencing stage, only n=275 felony murder charges remained out of 260,307 total charges at sentencing.

Also of interest, felony murder rule charges (“9-1(a)(3)”) comprised approximately one-third of all felony murder charges (“9-1(a)(1-3)”) at initiation (32.5%, or 11,334 out of 34,919) and at disposition (31.9%, or 6,006 out of 18,854) stages. In contrast, felony murder rule charges constituted only 15% (275 out of 1,784) of all felony murder charges at the sentencing stage. This seems to suggest that felony murder rule charges were less likely to make it from disposition to sentencing stages compared to other types of felony murder. We may wish to explore further whether this is because felony murder rule charges are more likely to be

dismissed (i.e., “nolle prosequi”) upon acceptance of a guilty plea for other charges, which could indicate that felony murder rule charges are more likely to be added as “stacked” charges that are filed insincerely (i.e., without true expectation of pursuing a punishment for the charge) in order to leverage guilty pleas on other charges.

As with the earlier stages, let’s continue focusing on the sentencing data itself by creating a simple cross-tabulation table to calculate felony murder charge counts by participant’s race. Once again, remember the distinction that these tallies from the “Sub2” data reflect the number of charges at disposition stage by race - not the number of participants by race with a particular charge.

```
#simple two-way table
Sentencingsub2 %>%
  tabyl(s_disposition_charge_section, s_race) %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 1) %>%
  adorn_ns() %>%
  gt() %>%
  cols_label(
    "s_disposition_charge_section" = "Statute Charged") %>%
tab_header(
    title = md("**Sentencing: All Felony Murder Cases by Race**"))%>%
 tab_footnote(
    footnote = "**Cases charged under the Felony Murder Rule are charged unde
r section number 9-1(a)(3)**",
    locations = cells_column_labels(s_disposition_charge_section)
 )
```

Now, as we did with the initiation and disposition datasets, let’s move toward creating a participant-level datafile (Sub4) that retains information on the primary charge and also includes a count of the number of felony murder rule charges and a binary indicator of whether the participant had at least one felony murder charge.

Sub4: Participant-level File with Primary Charge + Number of Felony Murder Charges

As with the other two datasets, we will now limit our focus to the subset of participants with felony murder rule (“9-1(a)(3)”) charges instead of all felony murders. This requires creation of a participant-level dataset so we can count the number of unique participants facing felony murder charges (instead of the number of charges).

To begin, we can start by simply tallying up the number of felony murder charges each unique participant has listed. To do so, we first group our data by the unique participant ID variable, then we create a tally variable with the useful add_tally function. This loops through each unique participant ID, tallies the number of rows within each participant with a “9-1(a)(3)” value for the “s_disposition_charge_section” variable (indicating a felony murder charge), then creates a new variable (column) with this tally, and finally renames the tally variable from “n” to “s_n_fmr” (for number of felony murder rule charges at sentencing stage).

```
Sentencingsub4 <- Sentencingsub1 %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  add_tally(s_disposition_charge_section == "9-1(a)(3)") %>%
  rename(s_n_fmr = n)

head(Sentencingsub4) %>% gt()
```

Now lets keep only the row containing a participant's primary charge. If a participant can only have one primary charge, then this will result in a participant-level dataset.

```
Sentencingsub4 <- Sentencingsub4 %>%
  filter(s_primary_charge_flag == "TRUE")

# head(Sentencingsub4) %>% gt()



head(Sentencingsub4) %>%
 gt() %>%
  tab_header(
    title = md("**Sentencing: Felony Murder Primary Charges**"))
```

This dropped our datafile from n=260,307 charges to n=188,914 primary charges and (hopefully) participants. Let's double-check to make sure we do not have any duplicate participant IDs.

```
tabyl(duplicated(Sentencingsub4$CASE_PARTICIPANT_ID)) %>% gt()
```

Unlike the initiation and disposition data, filtering by primary charge resulted in some duplicate rows (approximately 4%). This means some participants are represented in the data more than once - there is more than one row of sentencing information on the primary charge for some of these participants. Let's see if we can figure out what is going on.

Let's look at our sentencing "Sub4" data.

```
view(Sentencingsub4)
```

A detailed glance at the data reveals the issue. In particular, rows 15 and 16 show a duplicate participant with the same case ID and the same primary charge. However, scrolling further through the data to the "s_phase" (sentencing phase) column reveals that one row contains information from the "Original Sentencing" phase, whereas the other row contains information from a "Probation Violation Sentencing" phase. Further perusal of that "s_phase" column shows most rows contain original sentencing information, whereas some rows contain alternatives such as probation violation sentencing, resentencing, and remanded sentences. Given this, we will modify our filter to retain only primary charges and only information from the "Original Sentencing" phase.

```
Sentencingsub4 <- Sentencingsub4 %>%
  filter(s_primary_charge_flag == "TRUE" & s_phase == "Original Sentencing")
```

```
# head(Sentencingsub4) %>% gt()
```

This more restrictive filter dropped our rows from n=188,914 to 180,089. Now let's check for duplicates again.

```
tabyl(duplicated(Sentencingsub4$CASE_PARTICIPANT_ID)) %>% gt()
```

That filter substantially reduced the number of duplicate participant IDs in our "Sub4" data from n=7,785 to n=532 duplicate rows. It was pretty easy to visually find an example of a duplicate row when they constituted 4% of the data. Now, let's try using some code to find examples of duplicate ids.

```
#Base R solution for identifying duplicate IDs
# n_dupid <- data.frame(table(Sentencingsub4$CASE_PARTICIPANT_ID))
# n_dupid[n_dupid$Freq > 1,]

#Tidyverse version for identifying duplicate IDs
Sentencingsub4 %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  summarise(n=sum(n())) %>%
  filter(n>1)
```

```
## # A tibble: 527 × 2
##    CASE_PARTICIPANT_ID     n
##                  <dbl> <int>
##  1        194782095149     2
##  2        200314037702     2
##  3        201896262439     2
##  4        255001946985     2
##  5        258679465755     2
##  6        261681969447     2
##  7        263780998837     2
##  8        264488909151     2
##  9        264700740015     2
## 10        272121206542     2
## # … with 517 more rows
```

```
Sentencingsub4 %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  summarise(n=sum(n())) %>%
  filter(n>2)
```

```
## # A tibble: 4 × 2
##   CASE_PARTICIPANT_ID     n
##                 <dbl> <int>
## 1        279579147130     3
## 2        910057447439     3
## 3        920460294932     3
## 4        923483764819     4
```

These tables allow us to quickly find duplicate participant IDs. The first one is found on rows 161 and 162 (Hint: view the *Sentencingsub4* data, then sort by "CASE_PARTICIPANT_ID"). In these rows, some key differences are apparent. First, in one row, the "s_current_sentence_flag" is "TRUE" and in the other row it is "FALSE." Other sentencing differences are apparent as well (e.g., duplicates appear to have a "conversion" sentence type). Note also that some participants have more than two rows.

We can also create a dummy variable to indicate a duplicate ID.

```
Sentencingsub4 <- Sentencingsub4 %>%
   mutate(id_dup =ifelse(duplicated(CASE_PARTICIPANT_ID) | duplicated(CASE_PA
RTICIPANT_ID, fromLast = TRUE), 1,0))

# head(Sentencingsub4) %>% gt()
```

Note our "Sub4" dataset now has a dummy variable indicating if the CASE_PARTICIPANT_ID is duplicated. With this, we can easily remove only duplicate case IDs based on some condition(s). For now, let's keep only those unique participant rows and only those duplicate rows in which the *s_current_sentence_flag == "TRUE"*.

```
Sentencingsub4 <- Sentencingsub4 %>%
  mutate(id_drop =ifelse(id_dup == 1 & s_current_sentence_flag == "FALSE", 1,
0)) %>%
  filter(id_drop == 0)

# head(Sentencingsub4) %>% gt()


tabyl(duplicated(Sentencingsub4$CASE_PARTICIPANT_ID)) %>% gt()
```

Assuming these are the cases we wish to keep, this results in sentencing information on the primary charge and number of felony murder rule charges for n=179,548 unique participants.

Count of Felony Murder Rule Charges by Participant

```
Sentencingsub4 <- Sentencingsub4 %>%
  mutate(s_bin_fmr = s_n_fmr,
         s_bin_fmr = ifelse(s_n_fmr > 0, 1, 0))

Sentencingsub4 %>% tabyl(s_n_fmr) %>%
  gt() %>%
 cols_label(
    "s_n_fmr" = "Number of FMR Charges",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
  tab_header(
    title = md("**Sentencing: Count of Felony Murder Rule Charges**"))

Table11 <- Sentencingsub4 %>%
tabyl(s_bin_fmr) %>%
```

```
  gt() %>%
  cols_label(
    "s_bin_fmr" = "FMR Charge Present",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
  tab_header(
    title = md("**TABLE 11: Sentencing: Comparison of Felony Murder Charges**
"))


Table11 %>%
  gtsave(
    "Table11.png", expand = 10,
    path = here("Output")
  )
```

TABLE 11: Sentencing: Comparison of Felony Murder Charges

FMR Charge Present	Number of Individuals	Percent
0	179475	0.9995934235
1	73	0.0004065765

So,out of the 179,548 unique participants in the sentencing data, n=73 had at least one felony murder charge, with about half (36) having two or more such charges.

Let's check these figures by race.

```
Sentencingsub4 %>%
  tabyl(s_bin_fmr, s_race) %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns() %>%
  gt()
```

Again, we will collapse some of the race/ethnicity categories to ease interpretation by recoding the "s_race" variable into a newly recoded "s_ethrace_r" variable with collapsed categories.

```
#EDIT TO ADD s_ before ethrace_r

Sentencingsub4 <- Sentencingsub4 %>%
  mutate(s_ethrace_r = s_race,
         s_ethrace_r = if_else(s_race %in% c("White", "CAUCASIAN"), "White/Ca
ucasian", s_ethrace_r),
         s_ethrace_r = if_else(s_race %in% c("White [Hispanic or Latino]", "H
ISPANIC"), "Hispanic/Latino", s_ethrace_r),
         s_ethrace_r = if_else(s_race %in% c("Albino", "American Indian", "As
ian", "ASIAN", "Biracial", "Unknown", "White/Black [Hispanic or Latino]"), "M
```

```
ult/Oth/Unknown", s_ethrace_r),
         s_ethrace_r = if_else(is.na(s_race), "Mult/Oth/Unknown", s_ethrace_r
)
         ) %>%
  mutate(
         s_ethrace_r = fct_infreq(s_ethrace_r)
  ) #did not seem to do what i wanted - made into factor & tried to reorder r
esults by frequency
```

Now we can regenerate the summary table using the newly recoded s_ethrace_r variable.

```
Table12 <- Sentencingsub4 %>%
  tabyl(s_bin_fmr, s_ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()%>%
  cols_label(
    "s_bin_fmr" = "FMR Charge Present") %>%
  tab_header(
    title = md("**TABLE 12: Sentencing: Number of Felony Murder Rule Charges
by Race**"))


Table12 %>%
  gtsave(
    "Table12.png", expand = 10,
    path = here("Output")
  )
```

TABLE 12: Sentencing: Number of Felony Murder Rule Charges by Race

FMR Charge Present	Black	White/Caucasian	Hispanic/Latino	Mult/Oth/Unknown
0	116738 (99.95%)	26664 (99.99%)	32637 (99.97%)	3436 (100.00%)
1	60 (0.05%)	4 (0.01%)	9 (0.03%)	0 (0.00%)
Total	116798 (100.00%)	26668 (100.00%)	32646 (100.00%)	3436 (100.00%)

Felony murder rule charges are very uncommon at sentencing stage, with only n=73 out of the observed 179,548 participants, or less than one-twentieth of one percent (0.04%), having at least one felony murder rule charge at this stage. Of those with at least one such charge, Black participants (0.05%) were three times as likely ([60x26,664]/[4x116,738] = 3.4) to have a felony murder rule charge compared to White/Caucasian participants (0.01%).

Charge-level Exploration

Data

Keep FMR cases only

Examples of charge-level files & questions to answer. Below we keep all charges, not just fmr, for participants with at least one fmr charge. Then, we explore what happens to those participants' non-fmr and fmr charges.

```
Initiationsub5 <- Initiationsub1 %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  add_tally(i_section == "9-1(a)(3)") %>%
  rename(n_fmr = n)

Initiationsub5 <- Initiationsub5 %>%
  filter(n_fmr > 0)



Dispositionsub5 <- Dispositionsub1 %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  add_tally(d_charged_section == "9-1(a)(3)") %>%
  rename(d_n_fmr = n)

Dispositionsub5 <- Dispositionsub5 %>%
  filter(d_n_fmr > 0) %>%
  mutate(fmr_chg= ifelse(d_charged_section == "9-1(a)(3)",1,0))


Sentencingsub5 <- Sentencingsub1 %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  add_tally(s_disposition_charge_section == "9-1(a)(3)") %>%
  rename(s_n_fmr = n)

Sentencingsub5 <- Sentencingsub5 %>%
  filter(s_n_fmr > 0)
```

One issue is that the sentencing data have, for some participants and charges, multiple lines per charge. This appears to be due to resentencing, remanded sentences, etc. We need charge-level data that are structured to be per person per charge. We will filter data using the "s_phase" column to include only those marked as "Original Sentencing" in the data. We will then check for duplicate CHARGE_ID rows.

Remove Duplicates

```
Sentencingsub5 <- Sentencingsub5 %>%
  filter(s_phase == "Original Sentencing")
```

```
tabyl(duplicated(Sentencingsub5$CHARGE_ID)) %>% gt()
```

Well, there are still duplicates. It seems two different participants involved in same crime receive the same charge id. These types of duplicates are fine - we still appear to have unique participant-charge data in our rows. Still, we want to be sure that there are no charge_id duplicates within participants. So, we will create a unique participant-charge id variable using the *dplyr* "coalesce" command.

```
Sentencingsub5 <- Sentencingsub5 %>%
  unite('PARTIC_CHG_ID', CASE_PARTICIPANT_ID:CHARGE_ID, remove = FALSE)

tabyl(duplicated(Sentencingsub5$PARTIC_CHG_ID)) %>% gt()
```

We still have 8 duplicate participant-charge rows. Let's find them.

```
#Tidyverse version for identifying duplicate IDs
Sentencingsub5 %>%
  group_by(PARTIC_CHG_ID) %>%
  summarise(n=sum(n())) %>%
  filter(n>1)

## # A tibble: 8 × 2
##   PARTIC_CHG_ID                n
##   <chr>                    <int>
## 1 932772030116_336844716940     2
## 2 932772030116_337048888318     2
## 3 932772030116_337050954538     2
## 4 932772030116_337053741533     2
## 5 954131883319_346417754979     2
## 6 954131883319_346643789849     2
## 7 954131883319_346643837900     2
## 8 954131883319_346645423604     2

Sentencingsub5 <- Sentencingsub5 %>%
   mutate(id_dup =ifelse(duplicated(PARTIC_CHG_ID) | duplicated(PARTIC_CHG_ID
, fromLast = TRUE), 1,0))
```

It appears there are two participants with four charges each whom seem to have had their sentences altered in some way (e.g., from prison to probation) - our guess is that someone did not change the "s_phase" from "Original Sentencing" to an updated code. We keep four (of the eight) unique rows that appear to be the original sentence by filtering out (dropping) the "s_current_sentence_flag" == "TRUE".

```
Sentencingsub5 <- Sentencingsub5 %>%
  filter(id_dup == 0 | id_dup == 1 & s_current_sentence_flag == "FALSE")


# Sentencingsub5 <- Sentencingsub5 %>%
#   mutate(id_drop =ifelse(id_dup == 1 & s_current_sentence_flag == "TRUE", 1
```

```
,0)) %>%
#   filter(id_drop == 0)

tabyl(duplicated(Sentencingsub5$PARTIC_CHG_ID)) %>% gt()
```

Now we need to go back to initiation and disposition to create a participant-charge id and check for any more problematic duplicates.

```
Initiationsub5 <- Initiationsub5 %>%
  unite('PARTIC_CHG_ID', CASE_PARTICIPANT_ID:CHARGE_ID, remove = FALSE)

Dispositionsub5 <- Dispositionsub5 %>%
  unite('PARTIC_CHG_ID', CASE_PARTICIPANT_ID:CHARGE_ID, remove = FALSE)


tabyl(duplicated(Initiationsub5$PARTIC_CHG_ID)) %>% gt()

tabyl(duplicated(Dispositionsub5$PARTIC_CHG_ID)) %>% gt()
```

No duplicates!!! Now we can create a merged participant-charge level dataset.

```
#Full file
Partic_Chg_merged <- left_join(Initiationsub5, Dispositionsub5)

## Joining, by = c("PARTIC_CHG_ID", "CASE_PARTICIPANT_ID", "CHARGE_ID")

Partic_Chg_merged <- left_join(Partic_Chg_merged, Sentencingsub5)

## Joining, by = c("PARTIC_CHG_ID", "CASE_PARTICIPANT_ID", "CHARGE_ID")

tabyl(duplicated(Partic_Chg_merged$PARTIC_CHG_ID)) %>% gt()
```

Recoding variables & filtering pre-FMR change

First let's recode our race/ethnicity variable & create dummy variable for felony murder rule.

```
Partic_Chg_merged <- Partic_Chg_merged %>%
  mutate(ethrace_r = i_race,
         ethrace_r = if_else(i_race %in% c("White", "CAUCASIAN"), "White/Cauc
asian", ethrace_r),
         ethrace_r = if_else(i_race %in% c("White [Hispanic or Latino]", "HIS
PANIC"), "Hispanic/Latino", ethrace_r),
         ethrace_r = if_else(i_race %in% c("Albino", "American Indian", "Asia
n", "ASIAN", "Biracial", "Unknown", "White/Black [Hispanic or Latino]"), "Mul
t/Oth/Unknown", ethrace_r),
         ethrace_r = if_else(is.na(i_race), "Mult/Oth/Unknown", ethrace_r)
         ) %>%
  mutate(
         ethrace_r = fct_infreq(ethrace_r)
  ) %>%
  mutate(
    i_fmr_ind = if_else(i_section == "9-1(a)(3)", 1, 0),
```

```
    d_fmr_ind = if_else(d_charged_section == "9-1(a)(3)", 1, 0),
    s_fmr_ind = if_else(s_disposition_charge_section == "9-1(a)(3)", 1, 0),
    i_fm_cat = if_else(i_section == "9-1(a)(3)", "FMR", "Other"),
    i_fm_cat = if_else(i_section == "9-1(a)(1)", "FM1", i_fm_cat),
    i_fm_cat = if_else(i_section == "9-1(a)(2)", "FM2", i_fm_cat),
    d_fm_cat = if_else(d_charged_section == "9-1(a)(3)", "FMR", "Other"),
    d_fm_cat = if_else(d_charged_section == "9-1(a)(1)", "FM1", d_fm_cat),
    d_fm_cat = if_else(d_charged_section == "9-1(a)(2)", "FM2", d_fm_cat),
    s_fm_cat = if_else(s_disposition_charge_section == "9-1(a)(3)", "FMR", "O
ther"),
    s_fm_cat = if_else(s_disposition_charge_section == "9-1(a)(1)", "FM1", s_
fm_cat),
    s_fm_cat = if_else(s_disposition_charge_section == "9-1(a)(2)", "FM2", s_
fm_cat)
    )

#recode outcome eg plea, nolle, other
```

Here we check to make sure the charge section does not change across phases.

```
Partic_Chg_merged %>% tabyl(i_fmr_ind) %>%  gt()

Partic_Chg_merged %>% tabyl(d_fmr_ind) %>%  gt()

Partic_Chg_merged %>% tabyl(s_fmr_ind) %>%  gt()

Partic_Chg_merged %>% tabyl(i_fm_cat) %>%  gt()

Partic_Chg_merged %>% tabyl(d_fm_cat) %>%  gt()

Partic_Chg_merged %>% tabyl(s_fm_cat) %>%  gt()

Partic_Chg_merged %>% tabyl(d_charged_disposition) %>%  gt()

Partic_Chg_merged %>%
  tabyl(i_fmr_ind, d_fmr_ind) %>%
  adorn_totals('row') %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()

Partic_Chg_merged %>%
  tabyl(i_fmr_ind, s_fmr_ind) %>%
  adorn_totals('row') %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()

Partic_Chg_merged %>%
  tabyl(d_fmr_ind, s_fmr_ind) %>%
```

```
  adorn_totals('row') %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()
```

It looks like 7 fmr charges in initiation data became something else in disposition data - less than 1/10 of 1% - likely error in coding?

These are all crimes where someone presumedly died in the course of a felony occurring. So many charges are dropped by sentencing. How many participants were dropped in the process, and how many were ultimately sentenced? Also, compare high rates of Nolle Prosecution - is this such a common option in non-FMR cases as well?

Filter FMR merge data to drop post-7/1/21

After recoding all desired variables, we will need to create a dummy variable indicating whether the data are before or on/after 7/1/2021. We will also create a filtered version of the data that keeps only data before that date.

```
Partic_Chg_merged$i_rec_date2 <- as_date(mdy_hms(Partic_Chg_merged$i_received
_date))

#Create dummy if received date is on or after July 1 2021
Partic_Chg_merged <- Partic_Chg_merged %>%
  mutate(fmrchg_7121 = ifelse(i_rec_date2 >= "2021-07-01", 1, 0))

#Save over filtered (Sub4f) dataset
Partic_Chg_mergedf <- Partic_Chg_merged %>%
  filter(fmrchg_7121 == 0)
```

Simple Univariate Tables

```
Initiationsub5 %>%
  tabyl(i_charge_offense_title) %>%
gt()%>%
  cols_label(
    "i_charge_offense_title" = "Charge Offense Title",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
  tab_header(
    title = md("**Initation: Title of Additional Offenses in Cases involving
a Felony Murder Rule Charge**"))

Dispositionsub5 %>%
  tabyl(d_charged_disposition) %>%
gt()%>%
  cols_label(
    "d_charged_disposition" = "Outcome",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
```

```
  tab_header(
    title = md("**Disposition: Outcome of Additional Offenses in Cases involv
ing a Felony Murder Rule Charge**"))

Sentencingsub5 %>%
  tabyl(s_charge_disposition) %>%
  gt()%>%
  cols_label(
    "s_charge_disposition" = "Outcome",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
  tab_header(
    title = md("**Sentencing: Outcome of Additional Offenses in Cases involvi
ng a Felony Murder Rule Charge**"))
```

Bivariate Tables

```
Dispositionsub5 <- Dispositionsub5 %>%
  mutate(d_ethrace_r = d_race,
         d_ethrace_r = if_else(d_race %in% c("White", "CAUCASIAN"), "White/Ca
ucasian", d_ethrace_r),
         d_ethrace_r = if_else(d_race %in% c("White [Hispanic or Latino]", "H
ISPANIC"), "Hispanic/Latino", d_ethrace_r),
         d_ethrace_r = if_else(d_race %in% c("Albino", "American Indian", "As
ian", "ASIAN", "Biracial", "Unknown", "White/Black [Hispanic or Latino]"), "M
ult/Oth/Unknown", d_ethrace_r),
         d_ethrace_r = if_else(is.na(d_race), "Mult/Oth/Unknown", d_ethrace_r
)
         ) %>%
  mutate(
         d_ethrace_r = fct_infreq(d_ethrace_r)
  ) #did not seem to do what i wanted - made into factor & tried to reorder r
esults by frequency

Dispositionsub5 %>%
  tabyl(d_charged_disposition, d_ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()%>%
    cols_label(
    "d_charged_disposition" = "Outcome",
    ) %>%
  tab_header(
    title = md("**Disposition: Outcome of All Charges in Cases involving a Fe
lony Murder Rule Charge by Race**"))
```

```
Dispositionsub5 %>%
  filter(fmr_chg == 0) %>%
  tabyl(d_charged_disposition, d_ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()%>%
   cols_label(
    "d_charged_disposition" = "Outcome") %>%
 tab_header(
    title = md("**Disposition: Outcome of Non-FMR Charges in Cases involving
a Felony Murder Rule Charge by Race**"))

Dispositionsub5 %>%
  filter(fmr_chg == 1) %>%
  tabyl(d_charged_disposition, d_ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()%>%
   cols_label(
    "d_charged_disposition" = "Outcome") %>%
 tab_header(
    title = md("**Disposition: Outcome of Felony Murder Rule Charges by Race*
*"))
```

Examine FMR charge trajectories

Key question: How many cases originally beginning at the initiation stage charged under the felony murder rule ended up becoming a plea vs how many ended up sentencing/in a felony murder conviction? Is there a racial disparity in this process?

First, let's do any recodes we need in the full merged file. Then, we can filter the merged charge file (f - with only cases before 7/1/21) to include only FMR charges.

Recodes in merged partic-chg file

Let's recode our disposition outcome variable. By sentencing, only these six most common outcomes remain: Finding Guilty; FNG (Finding Not Guilty);Nolle On Remand; Nolle Prosecution; Plea Of Guilty; Verdict Guilty. There are far more outcomes at disposition. We want to simplify these to see if people: plead guilty; were found/verdict guilty (also lesser included); were "Nolle prosecution" (prosecutor did not pursue/dropped charge); had death-suggested cause abated; or something else ("other" remaining category).

```
Partic_Chg_mergedf <- Partic_Chg_mergedf %>%
  mutate(
    d_chgdisp_r = d_charged_disposition,
    d_chgdisp_r = if_else(d_charged_disposition %in% c("Finding Guilty", "Finding Guilty - Lesser Included", "Verdict Guilty", "Verdict Guilty - Lesser Included"), "Found or Verdict Guilty", d_chgdisp_r),
    d_chgdisp_r = if_else(d_charged_disposition %in% c("FNG","FNG Reason Insanity", "Verdict-Not Guilty"),"Found or Verdict Not Guilty", d_chgdisp_r),
    d_chgdisp_r = if_else(d_charged_disposition %in% c("Plea Of Guilty","Plea of Guilty - Amended Charge","Plea of Guilty - Lesser Included"), "Plea Guilty", d_chgdisp_r),
    d_chgdisp_r = if_else(d_charged_disposition %in% c("Finding Not Not Guilty", "Nolle On Remand"), "Other",  d_chgdisp_r)
  )


# Finding Guilty
# FNG
# Nolle On Remand
# Nolle Prosecution
# Plea Of Guilty
# Verdict Guilty


# Death Suggested-Cause Abated  196 0.0088840540
# Finding Guilty    736 0.0333605294
# Finding Guilty - Lesser Included  72  0.0032635301
# Finding Not Not Guilty    18  0.0008158825
# FNG   1566    0.0709817786
# FNG Reason Insanity   18  0.0008158825
# Nolle On Remand   17  0.0007705557
# Nolle Prosecution 17167   0.7781252833
# Plea Of Guilty    378 0.0171335328
# Plea of Guilty - Amended Charge   3   0.0001359804
# Plea of Guilty - Lesser Included  4   0.0001813072
# Superseded by Indictment  263 0.0119209500
# Verdict-Not Guilty    913 0.0413833741
# Verdict Guilty    687 0.0311395159
# Verdict Guilty - Lesser Included  24  0.0010878434
```

Partic-Chg Merged file - filter for FMR ONLY

Now lets look only at FMR charges and see what happened to them.

```
#Save over filtered (Sub4f) dataset
Partic_Chg_mergedf_fmr <- Partic_Chg_mergedf %>%
  filter(i_section == "9-1(a)(3)")

Partic_Chg_mergedf_fmr %>%
  tabyl(d_chgdisp_r) %>%
```

```
  gt() %>%
  cols_label(
    "d_chgdisp_r" = "Outcome",
    "n" = "Number of Individuals",
    "percent"= "Percent",
    "valid_percent" = "Valid Percent") %>%
  tab_header(
    title = md("**Disposition: Outcome of Felony Murder Rule Charges**"))

Partic_Chg_mergedf_fmr %>%
  tabyl(s_charge_disposition) %>%
    gt() %>%
  cols_label(
    "s_charge_disposition" = "Outcome",
    "n" = "Number of Individuals",
    "percent"= "Percent",
    "valid_percent" = "Valid Percent") %>%
  tab_header(
    title = md("**Sentencing: Outcome of Felony Murder Rule Charges**"))

Partic_Chg_mergedf_fmr %>%
  tabyl(d_chgdisp_r, s_charge_disposition) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
    cols_label(
    "d_chgdisp_r" = "Disposition Outcome") %>%
   tab_header(
    title = md("**Outcome of Felony Murder Rule Cases - Compare Disp & Sent P
hase**"))
```

There are just over 11k rows, or FMR charges (at initiation). Of those, about half are dropped by disposition…

Next question is what happens to *other* charges when an FMR charge is present? Let's see if we can figure that out. To begin, we need to filter the merged data to keep all charges for participants with at least one fmr charge, then examine the outcomes for non-fmr charges compared to fmr charges. To avoid confusion, we will create three consistently named datafiles that contain the following filtered sets of participants with FMR charges:

Dataset #1: *`Partic_Chg_mergedf_fmrpartic_allchgs`* is a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have **at least one felony murder rule (FMR) charge**. This dataset contains **ALL** charges for these FMR participants.

Dataset #2: *Partic_Chg_mergedf_fmrpartic_nonfmrchgs* is a participant-charge level file with merged and filtered data containing initation, disposition, and sentencing stages for all participants who have **at least one felony murder rule (FMR) charge**. This dataset contains **ONLY** non-FMR charges for these FMR participants.

Dataset #3: *Partic_Chg_mergedf_fmrpartic_fmrchgs* is a participant-charge level file with merged and filtered data containing initation, disposition, and sentencing stages for all participants who have **at least one felony murder rule (FMR) charge**. This dataset contains **ONLY** FMR charges for these FMR participants.

```
Partic_Chg_mergedf_fmrpartic_allchgs <- Partic_Chg_mergedf %>%
  filter(n_fmr > 0)

Partic_Chg_mergedf_fmrpartic_nonfmrchgs <- Partic_Chg_mergedf_fmrpartic_allch
gs %>%
  filter(i_section != "9-1(a)(3)")

Partic_Chg_mergedf_fmrpartic_fmrchgs <- Partic_Chg_mergedf_fmrpartic_allchgs
%>%
  filter(i_section == "9-1(a)(3)")
```

This dataset has 37,460 rows, which is comprised of over 37k charges for people with at least one FMR charge. This means that, among those participants, there are more than twice as many non-fmr charges as fmr charges. We can see this in the second dataset that further filters to only keep the non-FMR charges for participants who had at least one FMR charge. That filtered dataset has over 26k rows, meaning those with at least one FMR charge had a combined 26K non-FMR charges to go along with the over 11k FMR charges.

Let's see what those non-FMR charges are by examining the initiation charge offense title.

```
Partic_Chg_mergedf_fmrpartic_nonfmrchgs %>%
  tabyl(i_charge_offense_title) %>%
  adorn_pct_formatting(digits = 2) %>%
  gt() %>%
    cols_label(
    "i_charge_offense_title" = "Charge Offense",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
 tab_header(
    title = md("**Initiation: Non-FMR Charges in Cases involving a Felony Mur
der Rule Charge**"))
```

This is a messy table with all the various possible charge titles. However, some offense charges are more common than others.

####Key Findings

Now, let's see what happens to these non-FMR charges in disposition and sentencing phases.

```
Partic_Chg_mergedf_fmrpartic_nonfmrchgs %>%
  tabyl(d_chgdisp_r) %>%
  adorn_pct_formatting(digits = 2) %>%
  gt() %>%
   cols_label(
    "d_chgdisp_r" = "Outcome",
    "n" = "Number of Individuals",
    "percent"= "Percent",
    "valid_percent" = "Valid Percent") %>%
 tab_header(
    title = md("**Disposition: Outcome of Non-FMR Charges in Cases with a Fel
ony Murder Rule Charge**"))

Partic_Chg_mergedf_fmrpartic_nonfmrchgs %>%
  tabyl(s_charge_disposition) %>%
  adorn_pct_formatting(digits = 2) %>%
  gt() %>%
  cols_label(
    "s_charge_disposition" = "Outcome",
    "n" = "Number of Individuals",
    "percent"= "Percent",
    "valid_percent" = "Valid Percent") %>%
 tab_header(
    title = md("**Sentencing: Outcome of Non-FMR Charges in Cases with a Felo
ny Murder Rule Charge**"))

Partic_Chg_mergedf_fmrpartic_nonfmrchgs %>%
  tabyl(d_chgdisp_r, s_charge_disposition) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
    cols_label(
  "d_chgdisp_r" = " Disposition Outcome") %>%
  tab_header(
    title = md("**Outcome of Non-FMR Charges in Cases with a Felony Murder Ru
le Charge**"))
```

Let's compare these outcomes between FMR and non-FMR outcomes. We can do that using the initiation-stage dummy indicator we created earlier called "i_fmr_ind."

```
 Table9 <- Partic_Chg_mergedf_fmrpartic_allchgs %>%
  tabyl(d_chgdisp_r, i_fmr_ind) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
```

```
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_hide(columns = NA_) %>%
  cols_label(
    "0" = "Non-FMR",
    "1" = "FMR",
    d_chgdisp_r = "Outcome") %>%
  tab_header(
    title = md("**TABLE 9: Disposition: Outcome of Non-FMR & FMR Charges in C
ases with a Felony Murder Rule Charge**")) %>%
#Should add footnote that two cases appeared to have missing charge dispositi
on & were not shown
tab_footnote(
    footnote = "**Data are from all cases in Cook County between X date and J
uly 1, 2021. Analyis examines a participant-charge level file with merged and
filtered data containing initiation, disposition, and sentencing stages for a
ll participants who have at least one felony murder rule (FMR) charge. Two ca
ses appeared to have missing charge disposition information and thus were not
shown**",
    locations = cells_column_labels(d_chgdisp_r)
 )


Table9 %>%
  gtsave(
    "Table9.png", expand = 10,
    path = here("Output")
  )
```

TABLE 9: Disposition: Outcome of Non-FMR & FMR Charges in Cases with a Felony Murder Rule Charge

Outcome[1]	Non-FMR	FMR
Death Suggested-Cause Abated	94 (0.36%)	63 (0.57%)
Found or Verdict Guilty	994 (3.78%)	219 (1.97%)
Found or Verdict Not Guilty	1482 (5.63%)	566 (5.08%)
Nolle Prosecution	9466 (35.97%)	3717 (33.37%)
Other	7 (0.03%)	4 (0.04%)
Plea Guilty	284 (1.08%)	22 (0.20%)
Superseded by Indictment	170 (0.65%)	93 (0.83%)
NA	13823 (52.52%)	6454 (57.95%)
Total	26320 (100.00%)	11138 (100.00%)

[1] **Data are from all cases in Cook County between X date and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR) charge. Two cases appeared to have missing charge disposition information and thus were not shown**

```
Table12<- Partic_Chg_mergedf_fmrpartic_allchgs %>%
 tabyl(s_charge_disposition, i_fmr_ind) %>%
 adorn_totals('row') %>%
 # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
```

```
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_hide(columns = NA_) %>%
  cols_label(
    "0" = "Non-FMR",
    "1" = "FMR",
    s_charge_disposition = "Charged Disp. at Sentencing") %>%
    tab_header(
    title = md("**Sentencing: Outcome of Non-FMR & FMR Charges in Cases with
a Felony Murder Rule Charge**")) %>%
  tab_footnote(
    footnote = "**Data are from all cases in Cook County between 2010 and Jul
y 1, 2021. Analyis examines a participant-charge level file with merged and f
iltered data containing initiation, disposition, and sentencing stages for al
l participants who have at least one felony murder rule (FMR) charge. Two cas
es appeared to have missing charge disposition information and thus were not
shown**",
    locations = cells_column_labels(s_charge_disposition)
 )


Table12 %>%
  gtsave(
    "Table12.png", expand = 10,
    path = here("Output")
  )
```

Sentencing: Outcome of Non-FMR & FMR Charges in Cases with a Felony Murder Rule Charge

Charged Disp. at Sentencing[1]	Non-FMR	FMR
Finding Guilty	245 (0.93%)	84 (0.75%)
Nolle Prosecution	2 (0.01%)	4 (0.04%)
Plea Of Guilty	10 (0.04%)	13 (0.12%)
Verdict Guilty	160 (0.61%)	70 (0.63%)
NA	25903 (98.42%)	10967 (98.46%)
Total	26320 (100.00%)	11138 (100.00%)

[1] **Data are from all cases in Cook County between 2010 and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR) charge. Two cases appeared to have missing charge disposition information and thus were not shown**

Out of curiosity, for participants in these data at initiation phase with a felony murder rule charge, what is the primary charge in these cases?

```
Partic_Chg_mergedf_fmrpartic_allchgs %>%
  filter(i_primary_charge_flag == "TRUE") %>%
  tabyl(i_charge_offense_title) %>%
  gt()%>%
```

```
  cols_label(
    "i_charge_offense_title" = "Outcome",
    "n" = "Number of Individuals",
    "percent"= "Percent") %>%
 tab_header(
    title = md("**Initiation: Primary Charge Offense Title for Participants w
ith a Felony Murder Rule Charge**"))

Table8 <- Partic_Chg_mergedf_fmrpartic_allchgs %>%
  filter(i_primary_charge_flag == "TRUE") %>%
  tabyl(i_section) %>%
  gt() %>%
   cols_label(
    "i_section" = "Statute",
    "n" = "Number of Cases",
    "percent"= "Percent") %>%
 tab_header(
    title = md("**TABLE 8: Initiation: Primary Charge Statute for Participant
s with a Felony Murder Rule Charge**"))

Table8 %>%
  gtsave(
    "Table8.png", expand = 10,
    path = here("Output")
  )
```

TABLE 8: Initiation: Primary Charge Statute for Participants with a Felony Murder Rule Charge

Statute	Number of Cases	Percent
8-4(18-4(a)(6))	1	0.0007843137
9-1	1	0.0007843137
9-1(a)(1)	1198	0.9396078431
9-1(a)(2)	9	0.0070588235
9-1(a)(3)	66	0.0517647059

In these cases with at least one FMR charge, the vast majority have a felony murder #1 (9-1(a)(1)) designated as the primary charge.

```
Table7 <- Partic_Chg_mergedf_fmrpartic_allchgs %>%
  tabyl(d_chgdisp_r, i_fm_cat) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_label(
  d_chgdisp_r = "Outcome") %>%
```

```
  tab_header(
    title = md("**TABLE 7: Disposition: Outcome of FMR, FM1, FM2, & Other Cha
rges in Cases with a Felony Murder Rule Charge**")) %>%
#Should add footnote that two cases appeared to have missing charge dispositi
on & were not shown
tab_footnote(
    footnote = "**Data are from all cases in Cook County between 2010 and Jul
y 1, 2021. Analyis examines a participant-charge level file with merged and f
iltered data containing initiation, disposition, and sentencing stages for al
l participants who have at least one felony murder rule (FMR) charge.**",
    locations = cells_column_labels(d_chgdisp_r)
 )

  Table7 %>%
  gtsave(
    "Table7.png", expand = 10,
    path = here("Output")
  )
```

TABLE 7: Disposition: Outcome of FMR, FM1, FM2, & Other Charges in Cases with a Felony Murder Rule Charge

Outcome[1]	FM1	FM2	FMR	Other	NA_
Death Suggested-Cause Abated	37 (0.50%)	37 (0.50%)	63 (0.57%)	20 (0.17%)	0 (0.00%)
Found or Verdict Guilty	330 (4.45%)	325 (4.40%)	219 (1.97%)	339 (2.94%)	0 (0.00%)
Found or Verdict Not Guilty	465 (6.27%)	455 (6.16%)	566 (5.08%)	562 (4.88%)	0 (0.00%)
Nolle Prosecution	2875 (38.79%)	3029 (41.03%)	3717 (33.37%)	3562 (30.90%)	0 (0.00%)
Other	2 (0.03%)	2 (0.03%)	4 (0.04%)	3 (0.03%)	0 (0.00%)
Plea Guilty	173 (2.33%)	31 (0.42%)	22 (0.20%)	80 (0.69%)	0 (0.00%)
Superseded by Indictment	40 (0.54%)	40 (0.54%)	93 (0.83%)	90 (0.78%)	0 (0.00%)
NA	3489 (47.08%)	3464 (46.92%)	6454 (57.95%)	6870 (59.60%)	2 (100.00%)
Total	7411 (100.00%)	7383 (100.00%)	11138 (100.00%)	11526 (100.00%)	2 (100.00%)

[1] **Data are from all cases in Cook County between 2010 and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR) charge.**

```
Partic_Chg_mergedf_fmrpartic_allchgs %>%
  tabyl(s_charge_disposition, i_fm_cat) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
   cols_label(
    s_charge_disposition = "Outcome") %>%
    tab_header(
    title = md("**Sentencing: Outcome of FMR, FM1, FM2, & Other Charges in Ca
ses with a Felony Murder Rule Charge**")) %>%
  tab_footnote(
```

```
    footnote = "**Data are from all cases in Cook County between 2010 and Jul
y 1, 2021. Analyis examines a participant-charge level file with merged and f
iltered data containing initiation, disposition, and sentencing stages for al
l participants who have at least one felony murder rule (FMR) charge. Two cas
es appeared to have missing charge disposition information and thus were not
shown**",
    locations = cells_column_labels(s_charge_disposition)
 )
```

This table provide a somewhat closer test of the idea that people will plead guilty to "lesser" (non-felony murder) charges when a felony murder rule charge is present. Here, the "Other" column contains all non-felony murder charges from cases in which there was at least one felony murder rule charge initiated. The table shows that these lesser charges are about 3.5 times as likely [(80/11,526)/(22/11,138)=3.5] to result in a guilty plea compared to felony murder rule (FMR) charges. However, in addition to FMR charges, most of these cases also involve felony murder charges (1 or 2). Unexpectedly, it seems that felony murder #1 charges are 11.8 as likely [(173/7,411)/(22/11,138)=11.8] to result in a guilty plea compared to felony murder rule charges. So, while it seems people may be "pleading down" to lesser offense perhaps to avoid a felony murder rule (and/or felony murder) charge, these results might also suggest that people tend to contest rather than plead guilty to FMR charges overall.

Note: 2.7% (22/(22+219+566)=.027) FMR charges result in plea instead of trial, compared to 8.2 (80/(80+339+562)=8.15) of "Other" charges.

We wants specifics. We have a ton of charges. How many people are we talking about here? What is the average number of charges per person in these data? How many of these FMR-involved cases also include a FM1 or FM2 charge?

```
#How many total charges in these data?
Partic_Chg_mergedf_fmrpartic_allchgs %>% nrow()

## [1] 37460

#Of those charges, how many are FMR, FM1, FM2, & Other?
Table3 <-Partic_Chg_mergedf_fmrpartic_allchgs %>%
  tabyl (i_fm_cat) %>%
  adorn_totals() %>%
  gt()%>%
   cols_label(
    "i_fm_cat" = "Felony Murder Type",
    "n" = "Number of Charges",
    "percent"= "Percent",
    "valid_percent" = "Valid Percent") %>%
    tab_header(
    title = md("**TABLE 3: Number of Felony Murder Charges (9-1(a)(1-3)) in C
ases with at Least One Felony Murder Rule Charge (9-1(a)(1))**")) %>%
  tab_footnote(
    footnote = "**Data are from all cases in Cook County between 2010 and Jul
y 1, 2021. Analyis examines a participant-charge level file with merged and f
```

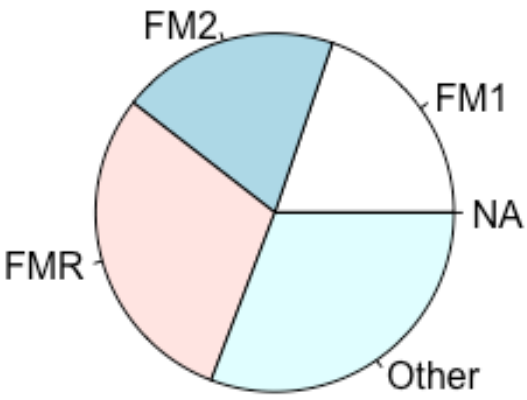
```
iltered data containing initiation, disposition, and sentencing stages for al
l participants who have at least one felony murder rule (FMR, or 9-1(a)(3)) c
harge. FM1 & FM2 indicate charges under statutes 9-1(a)(1) & 9-1(a)(2), respe
ctively. **",
    locations = cells_column_labels(i_fm_cat))

Table3 %>%
gtsave(
  "table3.png", expand=10,
  path = here("Output")
)
```

TABLE 3: Number of Felony Murder Charges (9-1(a)(1-3)) in Cases with at Least One Felony Murder Rule Charge (9-1(a)(1))

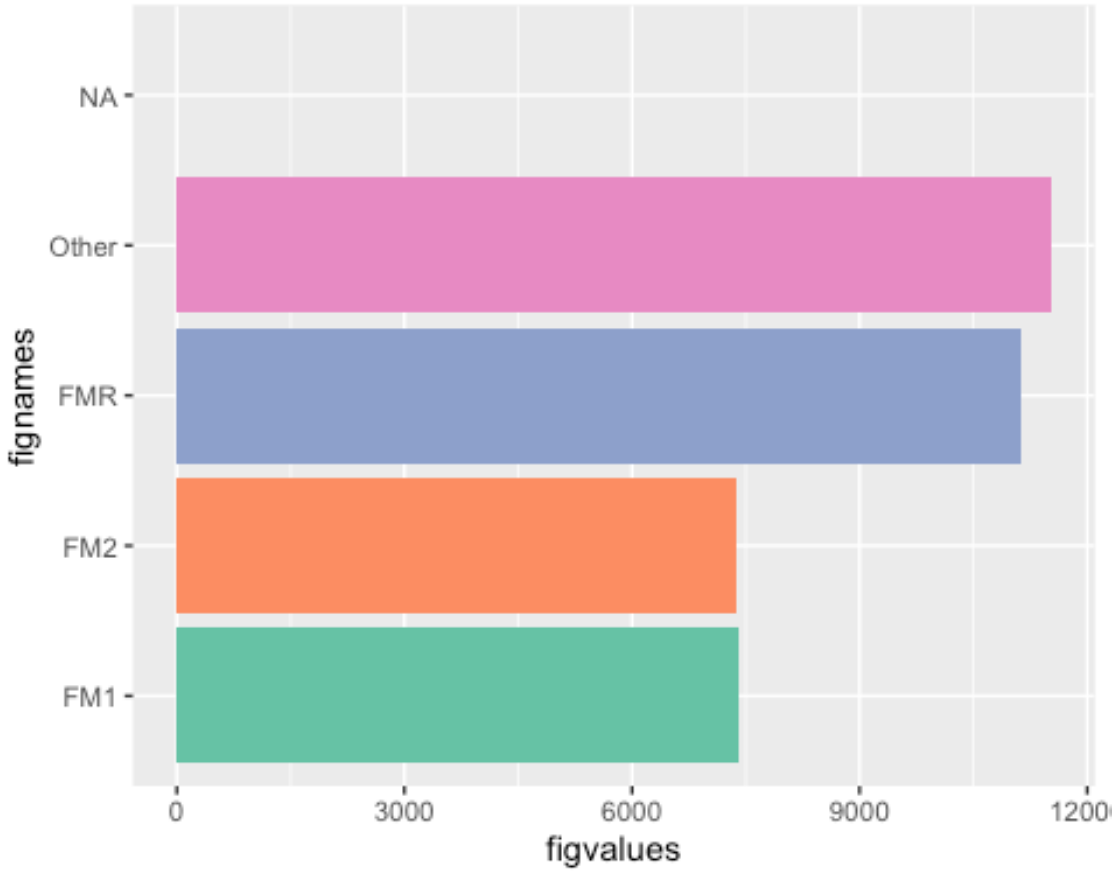
Felony Murder Type[1]	Number of Charges	Percent	Valid Percent
FM1	7411	0.19783769354	0.1978483
FM2	7383	0.19709022958	0.1971008
FMR	11138	0.29733048585	0.2973464
Other	11526	0.30768820075	0.3077046
NA	2	0.00005339028	NA
Total	37460	1.00000000000	1.0000000

[1] **Data are from all cases in Cook County between 2010 and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data containing initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR, or 9-1(a)(3)) charge. FM1 & FM2 indicate charges under statutes 9-1(a)(1) & 9-1(a)(2), respectively. **

```
#Pie charts (not usually recommended):
  #https://r-graph-gallery.com/pie-plot.html
figdata <- Partic_Chg_mergedf_fmrpartic_allchgs %>%
  tabyl (i_fm_cat)
pie(figdata$n, labels = c("FM1","FM2","FMR","Other","NA"))
```




```
#Basic bar charts:
  #https://r-graph-gallery.com/218-basic-barplots-with-ggplot2.html
#Colors:
  #https://www.stat.ubc.ca/~jenny/STAT545A/block14_colors.html

figvalues <- figdata$n
fignames <- figdata$i_fm_cat

library(RColorBrewer)
ggplot(figdata, aes(x=fignames, y=figvalues, fill=as.factor(fignames))) +
  geom_bar(stat="identity") +
  scale_fill_brewer(palette = "Set2") +
  theme(legend.position="none") +
  coord_flip()
```




```
#How many unique participants are in the data with all these charges?
Partic_Chg_mergedf_fmrpartic_allchgs %>%
  summarise(count = n_distinct(CASE_PARTICIPANT_ID)) %>%
  tabyl(count) %>% gt()

#How many unique participants in the data with at least one FMR charge also h
ad at least one FM1 or FM2 charge as well?
Partic_Chg_mergedf_fmrpartic_allchgs %>%
  filter(i_fm_cat == "FM1" | i_fm_cat == "FM2") %>%
  summarise(count = n_distinct(CASE_PARTICIPANT_ID)) %>%
  tabyl(count) %>% gt()
```

These data contain 37,460 total charges. That is the total number of charges initiated for participants with at least one FMR charge (before 7/1/2021). Of those charges, 11,138 are felony murder rule charges (9-1(a)(3)). These 37k total charges were initiated for only 1,275 participants with at least one FMR charge. Most of these (1,210/1,275 = .95) 1,275 participants with an FMR charge also had at least one FM1 or FM2 charge as well. The near ubiquitous prevalence of co-occuring FMR and felony murder rule charges makes it challenging to test the key hypothesis that people will plea down from FMR charges to lesser charges - because nearly all of those facing an FMR charge(s) also are facing other felony murder charges.

Let's try keeping only those people who had at least one FMR charge but did not have another FM1 or FM2 charge. Were these folks especially likely to "plea down" to other (lesser) non-FMR charges?

```
#Let's try creating a tally for the number of FM1 or FM2 charges that each pa
rticipant has & filtering
#to keep only those people with no other FM1 or FM2 charges (i.e., only FMR +
"lesser" charges)
nofm12data <- Partic_Chg_mergedf_fmrpartic_allchgs %>%
  group_by(CASE_PARTICIPANT_ID) %>%
  add_tally(i_section == "9-1(a)(1)" | i_section == "9-1(a)(2)") %>%
  rename(n_fm12 = n) %>%
  filter(n_fm12 == 0)

#How many unique participants are in the data with at least one FMR charge bu
t NO FM1 or FM2 charges?
nofm12data %>%
  summarise(count = n_distinct(CASE_PARTICIPANT_ID)) %>%
  tabyl(count) %>% gt()
```

Let's answer more questions about these 65 particpants with an FMR charge but no other felony murder 1 or 2 charges.

First, is an FMR charge flagged as the "primary" charge for all 65? Answer:(Yes)

```
nofm12data %>%
  filter(i_primary_charge_flag == "TRUE") %>%
  tabyl(i_section) %>%
  gt()
```

How many FMR charges are there for these 65 participants (we know they each have at least 1 FMR charge)?

```
nofm12data %>%
  filter(i_section == "9-1(a)(3)") %>%
  nrow()

## [1] 219
```

What were the non-FMR charges? (we know they each have at least 1 FMR charge)?

```
#what were they?
nofm12data %>%
  filter(i_section != "9-1(a)(3)") %>%
  tabyl(i_charge_offense_title) %>%
  gt()%>%
   cols_label(
    "i_charge_offense_title" = "Offense Title",
    "n" = "Number of Cases",
    "percent"= "Percent") %>%
    tab_header(
```

```
    title = md("**Offense Titles for Non-FMR Cases in Cases with at Least One
Felony Murder Rule Charge**")) %>%
  tab_footnote(
    footnote = "**Data are from all cases in Cook County between 2010 and Jul
y 1, 2021. Analyis examines a participant-charge level file with merged and f
iltered data containing initiation, disposition, and sentencing stages for al
l participants who have at least one felony murder rule (FMR) charge**",
    locations = cells_column_labels(i_charge_offense_title))
```

what happened to the FMR & non-FMR charges?

```
#what happened to FMR charges?
nofm12data %>%
  filter(i_section == "9-1(a)(3)") %>%
  tabyl(d_chgdisp_r) %>%
  gt() %>%
   cols_label(
    "d_chgdisp_r" = "Outcome",
    "n" = "Number of Charges",
    "percent"= "Percent",
    "valid_percent"= "Valid Percent") %>%
    tab_header(
    title = md("**Outcome for FMR Charges in Cases where FMR is the Primary C
harge**")) %>%
  tab_footnote(
    footnote = "**Data are from all cases in Cook County between 2010 and Jul
y 1, 2021. Analyis examines a participant-charge level file with merged and f
iltered data containing initiation, disposition, and sentencing stages for al
l participants who have at least one felony murder rule (FMR) charge and no o
ther felony murder charges**",
    locations = cells_column_labels(d_chgdisp_r))

#what happened to non-FMR?
nofm12data %>%
  filter(i_section != "9-1(a)(3)") %>%
  tabyl(d_chgdisp_r) %>%
  gt() %>%
     cols_label(
    "d_chgdisp_r" = "Outcome",
    "n" = "Number of Charges",
    "percent"= "Percent",
    "valid_percent"= "Valid Percent")%>%
    tab_header(
    title = md("**Outcome for Non-FMR Charges in Cases where FMR is the Prima
ry Charge**")) %>%
  tab_footnote(
    footnote = "**Data are from all cases in Cook County between 2010 and Jul
y 1, 2021. Analyis examines a participant-charge level file with merged and f
iltered data containing initiation, disposition, and sentencing stages for al
l participants who have at least one felony murder rule (FMR) charge and no o
```

```
ther felony murder charges**",
    locations = cells_column_labels(d_chgdisp_r))
```

It worked. We have n=65 participants with at least one FMR charge and no FM1/FM2 charges. These 65 participants have n=690 total charges.

```
table6 <- nofm12data %>%
  tabyl(d_chgdisp_r, i_fmr_ind) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_label(
    "0" = "Non-FMR",
    "1" = "FMR",
    d_chgdisp_r = "Outcome") %>%
  tab_header(
    title = md("**TABLE 6: Disposition: Outcome of Non-FMR & FMR Charges in C
ases with a Felony Murder Rule Charge & No FM1/FM2 Charges**")) %>%
#Should add footnote that two cases appeared to have missing charge dispositi
on & were not shown
tab_footnote(
    footnote = "**Data are from all cases in Cook County between X date and J
uly 1, 2021. Analyis examines a participant-charge level file with merged and
filtered data from initiation, disposition, and sentencing stages for all par
ticipants who have at least one felony murder rule (FMR) charge and no other
co-occuring felony murder (9-1(a)(1) or 9-1(a)(2)) charges.**",
    locations = cells_column_labels(d_chgdisp_r)
 )


#https://gt.rstudio.com/reference/gtsave.html

#install.packages("webshot")
#webshot::install_phantomjs()

table6 %>%
  gtsave(
    "table6.png", expand = 10,
    path = here("Output")
  )
```

TABLE 6: Disposition: Outcome of Non-FMR & FMR Charges in Cases with a Felony Murder Rule Charge & No FM1/FM2 Charges

Outcome[1]	Non-FMR	FMR
Found or Verdict Guilty	30 (6.37%)	12 (5.48%)
Found or Verdict Not Guilty	35 (7.43%)	24 (10.96%)
Nolle Prosecution	206 (43.74%)	110 (50.23%)
Plea Guilty	24 (5.10%)	5 (2.28%)
NA	176 (37.37%)	68 (31.05%)
Total	471 (100.00%)	219 (100.00%)

[1] **Data are from all cases in Cook County between X date and July 1, 2021. Analyis examines a participant-charge level file with merged and filtered data from initiation, disposition, and sentencing stages for all participants who have at least one felony murder rule (FMR) charge and no other co-occuring felony murder (9-1(a)(1) or 9-1(a)(2)) charges.**

Looking only at cases where at least one FMR charge is present and is/are the only felony murder charge (i.e., no FM1/Fm2 charges), participants in this situation are about twice as likely to plead guilty for non-FMR "lesser" offenses as compared to FMR offenses (5.1% vs. 2.28%).

Recall, in the larger dataset that included people with at least one FMR charge and may have also had FM1/FM2 charges, 2.7% of FMR charges resulted in plea instead of trial, compared to 8.2 (80/(80+339+562)=8.15) of "Other" charges. In these restricted data, among these 65 participants, 12.2% (5 out of FMR 41 charges) resulted in pleas versus trial, whereas 27% (24 out of 89) of non-FMR charges resulted in pleas versus trial.

4/6: Start Here Data Analysis:

Later, we can also compare the non-FMR outcome prevalencies for those with FMR charges and those with FM but not FMR charges. To do that, we probably want to focus within specific charge types (e.g., battery or attempted murder). To help with that, use the dummy indicator "i_FM_cat".

Examination of charge-level outcomes by race for FMR partcipants

Now we will examine each table to understand if the FMR or non-FMR outcomes differ by race. we will look at all participants with at least one FMR charge and examine outcomes for (1) all charges; (2) non-FMR charges only; (3) FMR charges only.

For (1), we use the following dataset: `Partic_Chg_mergedf_fmrpartic_allchgs` For (2), we use the following dataset: `Partic_Chg_mergedf_fmrpartic_fmrchgs` For (3), we use the following dataset: `Partic_Chg_mergedf_fmrpartic_nonfmrchgs`

Note that for many of our tables, we can just use the "all charges" dataset (`Partic_Chg_mergedf_fmrpartic_allchgs`) and filter with a pipe to include only non-fmr (`filter(fmr_chg == 0)`) or fmr (`filter(fmr_chg == 0)`) charges in the analysis (see code below).

Charge dispositions by race - FMR participants

First, let's compare the charged disposition (recoded version) for (1) all charges, (2) non-fmr charges, and (3) fmr charges.

```
table13 <-Partic_Chg_mergedf_fmrpartic_allchgs  %>%
  tabyl(d_chgdisp_r, ethrace_r) %>%
  adorn_totals('row') %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_label(
    d_chgdisp_r = "Outcome") %>%
  tab_header(
    title = md("**TABLE 13: Disposition: Outcome of All Charges by Race/Ethni
city**"))

  table13 %>%
  gtsave(
    "table13.png", expand = 10,
    path = here("Output")
  )
```

TABLE 13: Disposition: Outcome of All Charges by Race/Ethnicity

Outcome	Black	Hispanic/Latino	White/Caucasian	Mult/Oth/Unknown
Death Suggested-Cause Abated	147 (0.53%)	0 (0.00%)	10 (0.42%)	0 (0.00%)
Found or Verdict Guilty	959 (3.44%)	180 (2.64%)	62 (2.59%)	12 (2.91%)
Found or Verdict Not Guilty	1886 (6.77%)	88 (1.29%)	69 (2.89%)	5 (1.21%)
Nolle Prosecution	9246 (33.20%)	2374 (34.88%)	1281 (53.58%)	282 (68.45%)
Other	11 (0.04%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Plea Guilty	198 (0.71%)	61 (0.90%)	41 (1.71%)	6 (1.46%)
Superseded by Indictment	246 (0.88%)	7 (0.10%)	10 (0.42%)	0 (0.00%)
NA	15158 (54.43%)	4096 (60.18%)	918 (38.39%)	107 (25.97%)
Total	27851 (100.00%)	6806 (100.00%)	2391 (100.00%)	412 (100.00%)

```
# Partic_Chg_mergedf_fmrpartic_allchgs  %>%
#   tabyl(d_chgdisp_r, ethrace_r, fmr_chg) %>%
#   adorn_totals('row') %>%
#   adorn_percentages("col") %>%
#   adorn_pct_formatting(digits = 2) %>%
#   adorn_ns(position = "front")

Partic_Chg_mergedf_fmrpartic_allchgs  %>%
  filter(fmr_chg %in% c(0, NA)) %>%
  tabyl(d_chgdisp_r, ethrace_r) %>%
```

```
  adorn_totals('row') %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
gt() %>%
cols_label(
  d_chgdisp_r = "Outcome") %>%
tab_header(
  title = md("**Disposition: Outcome of Non-FMR Charges by Race/Ethnicity**")
)

table14 <-Partic_Chg_mergedf_fmrpartic_allchgs  %>%
  filter(fmr_chg %in% c(1,NA)) %>%
  tabyl(d_chgdisp_r, ethrace_r) %>%
  adorn_totals('row') %>%
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
gt() %>%
cols_label(
  d_chgdisp_r = "Outcome") %>%
tab_header(
  title = md("**TABLE 14: Disposition: Outcome of FMR Charges by Race/Ethnici
ty**"))

table14 %>%
  gtsave(
    "table14.png", expand = 10,
    path = here("Output")
  )
```

TABLE 14: Disposition: Outcome of FMR Charges by Race/Ethnicity

Outcome	Black	Hispanic/Latino	White/Caucasian	Mult/Oth/Unknown
Death Suggested-Cause Abated	60 (0.32%)	0 (0.00%)	3 (0.22%)	0 (0.00%)
Found or Verdict Guilty	178 (0.96%)	20 (0.41%)	20 (1.46%)	1 (0.54%)
Found or Verdict Not Guilty	518 (2.79%)	26 (0.54%)	18 (1.31%)	4 (2.15%)
Nolle Prosecution	2537 (13.67%)	698 (14.41%)	408 (29.74%)	74 (39.78%)
Other	4 (0.02%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Plea Guilty	12 (0.06%)	1 (0.02%)	2 (0.15%)	0 (0.00%)
Superseded by Indictment	87 (0.47%)	3 (0.06%)	3 (0.22%)	0 (0.00%)
NA	15158 (81.70%)	4096 (84.56%)	918 (66.91%)	107 (57.53%)
Total	18554 (100.00%)	4844 (100.00%)	1372 (100.00%)	186 (100.00%)

Charge offense titles by race - non-FMR charges for FMR participants

Now lets look only at non-FMR charges and see how they differ by race. We will start by comparing the charge offense title.

```
Partic_Chg_mergedf_fmrpartic_nonfmrchgs %>%
  tabyl(i_charge_offense_title, ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_label(
    i_charge_offense_title = "Charge Offense") %>%
 tab_header(
    title = md("**Initiation: Non-FMR Charges issued along with a Felony Murd
er Rule Charge by Race**"))
```

Now, let's see what happens to these non-FMR charges in disposition and sentencing phases.

```
Partic_Chg_mergedf_fmrpartic_nonfmrchgs %>%
  tabyl(d_chgdisp_r, ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_label(
    d_chgdisp_r = "Outcome") %>%
 tab_header(
    title = md("**Disposition: Outcome of Non-FMR Charges Issued with a Felon
y Murder Rule Charge by Race**"))

Partic_Chg_mergedf_fmrpartic_nonfmrchgs %>%
  tabyl(s_charge_disposition, ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_label(
    s_charge_disposition = "Outcome") %>%
tab_header(
    title = md("**Sentencing: Outcome of Non-FMR Charges Issued with a Felony
Murder Rule Charge by Race**"))
```

A couple things to note here. When looking at the sentencing data, remember we are filtering to keep only those participants with at least one FMR charge. Looking back at the creation of the sentencing "Sub5" data shows there were only n=73 participants with an FMR charge at the sentencing stage. Those 73 participants appeared to have n=809 charges total - including FMR and non-FMR charges. So, we are comparing a relatively small number of cases/participants at this stage by filtering on FMR charge. What is still confusing is: (1) what causes NA data coding - it does not appear to just be dropped charges; (2) relatedly, why do those with "found/verdict guilty" or "plea guilty" at disposition stage not show up with sentencing data in sentencing stage - most (ALL for some groups?) are coded as NA. It is not just that the charge disposition variable is NA at sentencing stage - the rest of the sentencing information appears to be as well.

Charge offense titles by race - FMR charges for FMR participants

Now lets look only at FMR charges and see how they differ by race. We will start by comparing the charge offense title.

```
Partic_Chg_mergedf_fmrpartic_fmrchgs %>%
  tabyl(i_charge_offense_title, ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt() %>%
  cols_label(
    i_charge_offense_title = "Charged Offense") %>%
tab_header(
    title = md("**Initiation: Offense Titles for Participants Charged Under t
he Felony Murder Rule Charge by Race**"))
```

As expected, all charges are listed as "First Degree Murder" because they are Felony Murder Rule charges, which is part of the first degree murder statute (part #3). Note that a few were likely miscoded simply as "Murder."

Data was filtered to only include those prior to statute change at 7/1/2021. Remember, we would like to do a pre-post comparison to see if the number/rate of FMR charges drops post-statute change (e.g., 3month pre-post? Go back to download again after more cases added?)

Now, let's see what happens to these FMR charges in disposition and sentencing phases.

```
Partic_Chg_mergedf_fmrpartic_fmrchgs %>%
  tabyl(d_chgdisp_r, ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
```

```
  gt() %>%
   cols_label(
    d_chgdisp_r= "Outcome") %>%
  tab_header(
    title = md("**Disposition: Outcome of FMR Charge by Race**"))

Partic_Chg_mergedf_fmrpartic_fmrchgs %>%
  tabyl(s_charge_disposition, ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()%>%
  cols_label(
    s_charge_disposition= "Outcome") %>%
  tab_header(
    title = md("**Sentencing: Outcome of FMR Charge by Race**"))
```

Note: I would like to do what we did here to compare FMR and non-FMR — Let's compare these outcomes between FMR and non-FMR outcomes. We can do that using the initiation-stage dummy indicator we created earlier called "i_fmr_ind." — See row 1275

###Racial Differences in Outcomes Currently, three-way tabyl is not working with pipe to gt(). Need to troubleshoot. For now, here are the comparisons in a less desirable format.

If interested in race differences in outcomes within FMR or non-FMR charges, see these tables:

```
Partic_Chg_merged <- Partic_Chg_merged %>%
  mutate(fmrchg_7121 = ifelse(i_rec_date2 >= "2021-07-01", 1, 0))



Partic_Chg_mergedf_fmrpartic_allchgs %>%
  tabyl(d_chgdisp_r, ethrace_r, i_fmr_ind) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front")

## $`0`
##                   d_chgdisp_r           Black Hispanic/Latino White/Caucas
ian
##  Death Suggested-Cause Abated    87   (0.44%)     0   (0.00%)     7   (0.4
2%)
##       Found or Verdict Guilty   781   (3.98%)   160   (3.39%)    42   (2.5
1%)
##   Found or Verdict Not Guilty  1368   (6.97%)    62   (1.32%)    51   (3.0
```

```
5%)
##             Nolle Prosecution  6709  (34.17%)  1676  (35.56%)   873  (52.2
1%)
##                         Other     7   (0.04%)     0   (0.00%)     0   (0.0
0%)
##                   Plea Guilty   179   (0.91%)    60   (1.27%)    39   (2.3
3%)
##      Superseded by Indictment   159   (0.81%)     4   (0.08%)     7   (0.4
2%)
##                          <NA> 10344  (52.68%)  2751  (58.37%)   653  (39.0
6%)
##                         Total 19634 (100.00%)  4713 (100.00%)  1672 (100.0
0%)
##  Mult/Oth/Unknown
##       0   (0.00%)
##      11   (3.65%)
##       1   (0.33%)
##     208  (69.10%)
##       0   (0.00%)
##       6   (1.99%)
##       0   (0.00%)
##      75  (24.92%)
##     301 (100.00%)
##
## $`1`
##                   d_chgdisp_r          Black Hispanic/Latino White/Caucasi
an
##  Death Suggested-Cause Abated   60   (0.73%)     0   (0.00%)     3   (0.42
%)
##       Found or Verdict Guilty  178   (2.17%)    20   (0.96%)    20   (2.78
%)
##   Found or Verdict Not Guilty  518   (6.31%)    26   (1.24%)    18   (2.50
%)
##             Nolle Prosecution 2537  (30.88%)   698  (33.35%)   408  (56.75
%)
##                         Other    4   (0.05%)     0   (0.00%)     0   (0.00
%)
##                   Plea Guilty   19   (0.23%)     1   (0.05%)     2   (0.28
%)
##      Superseded by Indictment   87   (1.06%)     3   (0.14%)     3   (0.42
%)
##                          <NA> 4812  (58.58%)  1345  (64.26%)   265  (36.86
%)
##                         Total 8215 (100.00%)  2093 (100.00%)   719 (100.00
%)
##  Mult/Oth/Unknown
##       0   (0.00%)
##       1   (0.90%)
##       4   (3.60%)
##      74  (66.67%)
```

```
##       0   (0.00%)
##       0   (0.00%)
##       0   (0.00%)
##      32  (28.83%)
##     111 (100.00%)
##
## $NA_
##                   d_chgdisp_r       Black Hispanic/Latino White/Caucasian
##  Death Suggested-Cause Abated 0   (0.00%)           0 (-)           0 (-)
##       Found or Verdict Guilty 0   (0.00%)           0 (-)           0 (-)
##   Found or Verdict Not Guilty 0   (0.00%)           0 (-)           0 (-)
##             Nolle Prosecution 0   (0.00%)           0 (-)           0 (-)
##                         Other 0   (0.00%)           0 (-)           0 (-)
##                   Plea Guilty 0   (0.00%)           0 (-)           0 (-)
##      Superseded by Indictment 0   (0.00%)           0 (-)           0 (-)
##                          <NA> 2 (100.00%)           0 (-)           0 (-)
##                         Total 2 (100.00%)           0 (-)           0 (-)
##  Mult/Oth/Unknown
##             0 (-)
##             0 (-)
##             0 (-)
##             0 (-)
##             0 (-)
##             0 (-)
##             0 (-)
##             0 (-)
##             0 (-)

#does not work currently with gt()
```

If interested in comparing outcomes for fmr vs non-fmr chgs within race, see these tables:

```
Partic_Chg_mergedf_fmrpartic_allchgs %>%
  tabyl(d_chgdisp_r, i_fmr_ind, ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front")

## $Black
##                   d_chgdisp_r              0             1         NA_
##  Death Suggested-Cause Abated    87   (0.44%)   60   (0.73%) 0   (0.00%)
##       Found or Verdict Guilty   781   (3.98%)  178   (2.17%) 0   (0.00%)
##   Found or Verdict Not Guilty  1368   (6.97%)  518   (6.31%) 0   (0.00%)
##             Nolle Prosecution  6709  (34.17%) 2537  (30.88%) 0   (0.00%)
##                         Other     7   (0.04%)    4   (0.05%) 0   (0.00%)
##                   Plea Guilty   179   (0.91%)   19   (0.23%) 0   (0.00%)
##      Superseded by Indictment   159   (0.81%)   87   (1.06%) 0   (0.00%)
##                          <NA> 10344  (52.68%) 4812  (58.58%) 2 (100.00%)
```

```
##                         Total 19634 (100.00%) 8215 (100.00%) 2 (100.00%)
##
## $`Hispanic/Latino`
##                    d_chgdisp_r              0              1
##  Death Suggested-Cause Abated    0   (0.00%)    0   (0.00%)
##       Found or Verdict Guilty  160   (3.39%)   20   (0.96%)
##   Found or Verdict Not Guilty   62   (1.32%)   26   (1.24%)
##              Nolle Prosecution 1676  (35.56%)  698  (33.35%)
##                          Other    0   (0.00%)    0   (0.00%)
##                    Plea Guilty   60   (1.27%)    1   (0.05%)
##      Superseded by Indictment    4   (0.08%)    3   (0.14%)
##                           <NA> 2751  (58.37%) 1345  (64.26%)
##                         Total 4713 (100.00%) 2093 (100.00%)
##
## $`White/Caucasian`
##                    d_chgdisp_r              0              1
##  Death Suggested-Cause Abated    7   (0.42%)   3   (0.42%)
##       Found or Verdict Guilty   42   (2.51%)  20   (2.78%)
##   Found or Verdict Not Guilty   51   (3.05%)  18   (2.50%)
##              Nolle Prosecution  873  (52.21%) 408  (56.75%)
##                          Other    0   (0.00%)   0   (0.00%)
##                    Plea Guilty   39   (2.33%)   2   (0.28%)
##      Superseded by Indictment    7   (0.42%)   3   (0.42%)
##                           <NA>  653  (39.06%) 265  (36.86%)
##                         Total 1672 (100.00%) 719 (100.00%)
##
## $`Mult/Oth/Unknown`
##                    d_chgdisp_r              0              1
##  Death Suggested-Cause Abated   0   (0.00%)   0   (0.00%)
##       Found or Verdict Guilty  11   (3.65%)   1   (0.90%)
##   Found or Verdict Not Guilty   1   (0.33%)   4   (3.60%)
##              Nolle Prosecution 208  (69.10%)  74  (66.67%)
##                          Other   0   (0.00%)   0   (0.00%)
##                    Plea Guilty   6   (1.99%)   0   (0.00%)
##      Superseded by Indictment   0   (0.00%)   0   (0.00%)
##                           <NA>  75  (24.92%)  32  (28.83%)
##                         Total 301 (100.00%) 111 (100.00%)
```

Basic tables - # FMR charges by race/eth

```
Dispositionsub4 %>%
  tabyl(d_bin_fmr, d_ethrace_r) %>%
  adorn_totals('row') %>%
  # arrange(desc(Total)) %>% # does not work as desired - hoping to arrange c
ols by freq
  adorn_percentages("col") %>%
  adorn_pct_formatting(digits = 2) %>%
  adorn_ns(position = "front") %>%
  gt()%>%
      cols_label(
    "d_bin_fmr" = "FMR Charge Present") %>%
```

```
  tab_header(
    title = md("**Disposition: Number of Felony Murder Rule Charges by Race**
"))
```

Participant-level merge exploration

This is a merged datafile containing individual participants with one charge row per person (the primary charge) and a count or binary indicator of number/whether they have a FMR charge. We have not yet filtered this datafile to remove cases after 7/1/2021. We moved on from this to answer questions about specific charges in a participant-charge-level datafile.

Merge datafiles

```
#Full file
 Partic_merged <- left_join(Initiationsub4, Dispositionsub4)

## Joining, by = c("CASE_PARTICIPANT_ID", "CHARGE_ID")

 Partic_merged <- left_join(Partic_merged, Sentencingsub4)

## Joining, by = c("CASE_PARTICIPANT_ID", "CHARGE_ID")

# Filtered (pre-7/1/2021) files - still need to create separate dispf & sentf
files first then run
 # Partic_mergedf <- left_join(Initiationsub4f, Dispositionsub4f)
 # Partic_mergedf <- left_join(Partic_mergedf, Sentencingsub4f)
```

PICK UP HERE

```
# save.image(file="Anna_thesis.RData")
load(file="Anna_thesis.RData")

#install.packages("ggplot2")
#install.packages("ggeffects")
```