Youth Tackle Football Participation

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Football is America's sport. For well over 100 years, Americans have been playing football ("Who Invented Football?," 2023). American football, as we know it, first started off being played only at universities, in the mid 19th century. Today, it has spread throughout the country to Americans of all ages and has recently been deemed "America's Sport" by Americans, according to the Pew Research Center's recent survey (Gramlich et al., 2024). Football is a staple of American culture and is loved by many. An average of 17.5 million Americans tuned in to each of the National Football League's (NFL) regular season games in 2024 (Sim, 2025). This love for watching football does not stop at the professional level, as an average of 7 million Americans fill high school football stadiums for Friday night lights in the fall high school seasons (Dr. Neihoff, 2019). It is clear based on the number of weekly spectators, that Americans have a demand for good football. This high level of play that we see at professional levels would not be possible without fostering a football culture at an early age and encouraging kids to play the sport we all love.

Kids of all ages have the chance to play the sport. From pee-wee (typically under the age of 9) all the way through highschool, there are youth football leagues. Yet, despite kids having ample access to the sport at all ages, and despite America's continuous intense love for football, youth participation rates are declining. Within the past decade, we have seen a decrease in high school tackle football participation, like we have not seen before (Gilligan, 2023). Since 2011, there has been a steady decrease in high school football participation. The 2021-2022 school year was the first season since the year 2000 to have under 1 million participants[1]. The number was

[1] It is likely that this number was partially affected by the COVID-19 Pandemic, which caused a decrease in participation in every sport during this school year

about 1.03 million in the 2023-2024 school year, which is down 7.3% from its peak in the 2008-09 season. Additionally, in 2023, the average number of children ages 6-12 who participated in tackle football was 2.7%, which is significantly less than what it was in 2013 (3.5%) (“State of Play 2024,” 2024). This steady decrease in tackle football participation is likely due to rising concerns about the high injury rate in tackle football. In recent years, there has been new research done and, consequently, much more media coverage regarding injuries in football and their short and long term effects. A headline titled, “Recent deaths of young football players rekindle questions about safety of game,” discusses whether parents should let their children play the dangerous sport (Trusner, 2024). This rapid decline in participation from the American youth begs the question: is it safe for children to play tackle football? In this paper, I will argue that youth tackle football is not safe for children to play. My reasoning behind this decision is a combination of the high likelihood of injury in the sport and the lack of social consensus to hold safety paramount, which prevents the game from making the necessary changes to become safe for kids.

Background and Significance

It is crucial to understand why these participation numbers have been dropping over the years, and how this could affect the game of football. Around 1 in 5 parents won’t let their kids play tackle football due to the high risk of injury that comes with it (Newall, 2024). This rise of concern over injuries caused by football has been steadily increasing over the past few years. Recently, there was a catastrophic event that accelerated this widespread concern about the safety of football at all levels. In 2023, 24-year-old NFL player, Damar Hamlin, collapsed on the field mid-game from sudden cardiac arrest caused by a hard tackle. (“Damar Hamlin Injury Shocked

the Nation: One Year Later," 2024). He was administered CPR on the field, where they were able to restart his heart with millions of people watching. The game was postponed indefinitely. This near death scenario sparked conversations both in the locker room, and across the nation about the dangers of football. Some NFL players began to question "whether playing football was worth its dangers" (Mather, 2023). At the high school level, coaches ensured worried parents that their coaching staff and athletic trainers were CPR certified and prepared for a rare, but possible, event like this if it were to happen to one of their players (Zirin, 2023).

While it is a good consequence that some high school teams started to recognize this possibility and prepare for it, a year after the event, there were still only 20 states that require AEDs and trained staff at sporting events ("Damar Hamlin Injury Shocked the Nation: One Year Later," 2024). So while concerns of the dangers were raised, minimal action was taken at the high school level to further protect players. This could indicate that a team or league's ability to make the necessary changes to improve player safety is worse at the younger levels. This raises a concern about the ability of youth leagues to protect its players.

While Hamlin's collapse was an extremely rare event that he, thankfully, managed to survive, death is still a continued risk to players at all levels. In 2023, there were 3 in-game deaths caused from football related activities (Kucera et al., 2024). Two were high school athletes and one was in a youth football league. All three were traumatic-brain injuries. While the number of deaths is low compared to the number of football participants in 2023 (approximately 4.2 million in the U.S.), the fact that the number was not zero is enough to raise concerns about the safety of football.

Fatal injuries, while the most important, are not the only concern for football players. In 2009, about 215,000 kids ages 5-14 were sent to the emergency room due to football related

injuries (“Sports Injury Statistics,” n.d.). In the 2018-2019 school year, around 450,000 high school football players experienced injuries from playing (Grover, n.d.). Of those injuries, concussions were by far the most common at around 21%, but other sustained injuries included ankle, knee, or other leg muscle strains/sprains, as well as different types of shoulder or wrist injuries. The most concerning of these high school injuries are the head injuries, for they have the most substantial life long effects. At all levels, not just youth, these head injuries are the highest concern.

One effect of repeated impacts to the head is the possibility of developing Chronic Traumatic Encephalopathy (CTE). CTE leads to a number of life long symptoms including different types of cognitive impairment, behavioral changes, mood disorders, and motor symptoms (“Chronic Traumatic Encephalopathy,” 2023). Recent research revealed that CTE was found in over 90% of former NFL players who participated in the study (First down: Football Injuries by the Numbers, 2023). That number is extremely alarming considering that it only consists of NFL players who were tested. There’s no saying how many of the non-tested NFL players also had (or still have) CTE, or how many college or high school players will also develop it due to their participation in the sport. A study done at the BU School of Medicine found “that each year younger that athletes began to play tackle football correlated with an earlier onset of cognitive problems by 2.4 years, and behavioral and mood problems by 2.5 years,” (Moran, 2018). This shows that the younger kids are when they start playing football, the more likely they will be to develop a neurodegenerative disease. The research also explained that the years before age 12 are especially critical for brain development. This is a cause for concern that suggests that children should not be playing tackle football while their brains are in this developmental state.

Given the recent injury and death rates, as well as the new research and media coverage, it is clear that there is controversy over whether or not kids should play tackle football. We must take the time to analyze the current state of the sport and reflect on what changes have been made to try to improve these extremely high injury rates. For if we don't, then the continuation of the youth sport would be irresponsible and dangerous for our posterity.

Methodology

The risk of short term and long term injury at the youth level is extremely high and has stayed consistent over recent decades. It is important to analyze what efforts have been made to improve these consistent injury numbers.

As with many sports, the rules used at the professional level set the framework for high school and youth leagues. There have been increased efforts to improve the safety of the sport in the NFL and in college. These recent changes can be described using three categories: in-game rule changes, equipment regulations, and practice regulations. In-game rule changes include any rules that have been recently implemented with the intention of making the actual game-play safer. This could include additional penalties or changes in the style of play. Equipment regulations refers to any rules that require certain safety equipment be worn or used in games and/or practices. Finally, practice regulations refers to any rules created that would affect how coaches are allowed to conduct practices. This could include time limits, contact limits, injury prevention training, etc. I will perform document analysis to find recent rule changes in the NFL and NCAA that make the game safer.

After identifying these rule changes made at higher levels, I will evaluate which of these changes have trickled down into the youth leagues by doing case studies on the rules of 3

American youth football leagues. I will look at the rules and regulations for 2 youth tackle football leagues in the state of Virginia, as well as one in Dallas, Texas. This will give a perspective on how rules vary within and between states.

The first youth league I will analyze is The Jefferson District Youth Football League (JDYFL) based out of Charlottesville, VA. The second league I will analyze is the Roanoke County Parks and Recreation Tackle Football League, which is based out of Roanoke, VA. It is important to note that both of these leagues follow the rules published by the National Federation of State High School Associations (NFHS). Most high schools across the country also follow this set of rules with exceptions in some states, like Texas. This is why I selected a league in Texas, so I could analyze the differences in rules between states. The league I selected in Texas is the North Texas Football League (NTFL) based out of Dallas, TX. This league follows rules created by the University Interscholastic League (UIL).

I will use technological momentum, an STS theory, to help interpret my findings. Technological momentum is a theory that states that for a technological system to be accepted by society, it must first align with social context and goals (Hughes, 2008). To use this framework, I will consider these rule changes to be the new "technological systems" that society is attempting to accept. This analytical structure, along with research about the perspectives of parents and coaches on the safety of football, will aid in determining why certain rules have been implemented over others. The culmination of these factors will help determine whether tackle football is truly safe for children.

Document Analysis

Every year there are rule changes in the NFL and NCAA to keep the game exciting, address controversies, and, most importantly, enhance player safety. The rule changes that target improving safety can be categorized into three groups: in-game rule changes, equipment regulations, and practice regulations. We will start by analyzing in-game rule changes.

A survey done by the NCCSIR said when discussing the number of catastrophic brain injuries from football in 2023 that "the overwhelming majority occurred during competition (93.9%) followed by practice (3.0%) and scrimmage (3.0%)," (Kucera & Cantu, 2024). Because almost every catastrophic injury occurs during games, in-game rule changes are the most important of the three categories.

One very significant in-game rule change that the NFL and NCAA made was the introduction of the "Use of Helmet" rule better known as "targeting," in 2013. Targeting is defined as "an act of taking aim and initiating contact to an opponent above the shoulders with the helmet, forearm, hand, fist, elbow, or shoulder," (Kucera & Cantu, 2024). In 2014, the penalty in the NCAA for a player who executed a targeting hit became an immediate ejection from the game (Emerson, 2024). While a harsh consequence, it was a necessary one. Since the implementation of the rule, the number of targeting hits and concussion rates in the NFL and NCAA have decreased. This decrease in penalties is because players have adjusted their style of play and how they tackle, thus making themselves and their opponents safer. The targeting rule was also introduced to highschool football, in 2014, by the NFHS rules committee (NFHS Rules Changes Affecting Risk, 2018). The targeting rule was closely followed by a handful of other rules designed to decrease dangerous styles of tackles with the crown of the head and against

defenseless receivers (Kucera & Cantu, 2024). The combination of these new rules and improved tackling techniques has been extremely effective in improving player safety.

Another in-game important in-game rule change has to do with kickoff returns. Kickoff returns have proven to be extremely dangerous, as they involve players running at high speeds causing significant impacts. Infact, kickoffs have the highest rate of injury of any type of football play (Battista, 2012). Due to the danger of the kickoff, the Ivy League, of the NCAA, changed the kickoff line from the 35 to the 40-yard line, and increased the touchback line from the 20 to the 25-yard line (Wiebe et al., 2018). The intention of this change was to encourage more touchbacks (the contactless alternative to running back the return). The results of this change showed that there were 7.51 fewer concussions per 1000 kickoff plays; a successful change. The NFL also adapted their kickoff rules to reduce the severity of collisions. Instead of having kicking team players line up even with the ball and run the full length of the field, they instead start on the receiving team's 40-yard line (*2024 Dynamic Kickoff Rule Explainer*, 2024). These in-game changes are crucial to eliminate high injury producing plays. An interesting rule change at the high school level came out of New York. High schools in the Metropolitan Independent Football League have completely discarded the kickoff play and instead have teams get the ball on their own 35-yard line (Christensen, 2024). After implementation, the league saw a 33% decrease in the number of concussions, as well as an 18% increase in participation. Initial backlash from parents and coaches were squandered after seeing the impressive improvement of safety.

The second category of rule changes are the equipment regulations. A crucial aspect of keeping players safe is the equipment they wear. Players have a wide range of required equipment including knee pads, thigh pads, shoulder pads, mouth guards, and, most importantly,

helmets with chin straps and facemasks ("NFL Health and Safety Related Rules Changes Since 2002," 2024). Not only is it important to have this equipment, but it's also important to keep it in good shape with refurbishment. NFL players are always given top of the line equipment due to the vast amount of money that the league makes, as well as its oath to the NFL Player Association to keep players safe (Goodsell, 2024). Research is constantly being conducted across the country to test equipment like helmets and pads to ensure they have the optimal design for player safety. Recently, 5 new top-of-the-line helmets became available for players in the NFL. These helmets have been tested and showed impressive safety capabilities and features, including many new position specific helmets. Additionally, they prohibit certain helmets from being used by any player, as they do not meet the safety standards. Additional state of the art safety equipment that the NFL provides its players are called Guardian caps. These caps greatly reduce the impact felt by players from head on collisions and the NFL has even mandated that linemen wear them in practices ("NFL to Give Players Option to Wear Guardian Caps during Regular-Season Games," 2024). All of this high end equipment greatly improves the safety of the players.

The final category of rule changes that can improve the safety of football is practice regulations. As previously stated, the NFL has already regulated practices by requiring linemen to wear guardian caps. There are many other practice regulations that have gone into place recently. The NFL has started training their players on concussion safety in preseason practices ("Player Health & Safety," 2025). Awareness is key to improving player safety, as they will be aware of how to better protect themselves from injuries. Additionally, the NFL has maximized the number of "padded practices" to 14 a season, given a 16 week season (*NFL Collective Bargaining Agreement*, 2020). Padded practices are described as practices where helmets and

shoulder pads are worn, indicating that there will be intense contact during those practices. On the high school level, nearly 40 states have regulations on the number of allowed "full-contact" preseason practices, and that number increases to 43 during the regular season (Lage, 2019). This entails tracking the amount of time per practice that players are allowed to tackle each other, and requires teams to have contactless practices where players don't wear padding and are not allowed to tackle each other. These rules successfully limit contact between players throughout the season, thus keeping players safe.

The combination of all of these rules has successfully improved the safety of the NFL, the NCAA, and high school. Youth football leagues would benefit greatly from any and all of these rule changes.

Case Analysis

Now that the different types of rule changes have been established and we understand how they improve player safety at the highest levels of football, we can analyze which youth tackle football leagues have implemented similar rules. As part of this analysis, we will determine how these rules changes were able (or unable) to be implemented, and whether or not these they significantly protect children, thus making the sport safe to play.

We will once again start with the in-game rule changes, specifically looking at what leagues have adopted the targeting and tackle restriction rules. JDYFL has specific rules limiting types of contact between players. Their 2025 Rules document states that there is "No blocking or cracking below the waist at the line of scrimmage at all levels," (*Jefferson District Youth Football League Rules*, 2025). In addition, the rules state that all levels (14U, 11U, 9U, and 7U) follow the NFHS rules, which, as was previously stated, includes targeting. It is important to

note that a player called for targeting is not immediately ejected from the game according to the NFHS rules as well as the UIL rules followed by the NTFL (*2021 NFHS Football Game Officials Manual Points of Emphasis*, 2021; *2024 UIL Exceptions to NCAA Football Rules*, 2024). The Roanoke league combats this lack of harsh punishment by implementing an additional penalty. They state in their rules that any player who is called for an unsportsmanlike foul (which includes targeting) must sit out for the next 5 plays (*Roanoke County Tackle Football 2024 Rules and Regulations*, 2024). This additional punishment is beneficial, as it forces the player at fault to reconsider their reckless actions and hopefully work to prioritize safety. Additionally, the Roanoke league enforces weight limits, where if a child's weight is above a certain number for their age group, then they are only allowed to line up on the line of scrimmage for certain plays, and they are never allowed to advance the ball forward. This rule, also enacted by the NTFL, is likely implemented to prevent the biggest kids from bulldozing over smaller kids who try to tackle them, thus further preventing injuries. This is a smart rule that all youth leagues should adopt.

To understand why these types of rule changes were forged in the youth leagues, we must look at them through a technological momentum lens. When the targeting rule was originally created in the NCAA, there was a lot of backlash against it from coaches, fans, and players (Bolch, 2017). However, overtime people started to adapt their positions as they saw how it benefited the game. Clay Helton, a previous USC football coach, said in support of the rule, "anything to be able to help the safety of our game, I think, is important." Since this rule eventually became accepted amongst prominent figures in the higher levels, such as Helton, youth leagues and their communities had no trouble accepting it, and even established it as their societal norm. The targeting, tackling limitations, and the weight limit rules are all vital rules

needed to deem youth football safe to play. However, it is crucial to have a combination of all three, which in this case, none of these leagues have. Thus, these youth leagues have not done enough individually to prove youth tackle football is safe for children.

The next in-game rule change that I will analyze at the youth level is the adaptation of the kickoff. Both of the Virginia leagues have modified kickoff and/or punt return rules. The rules implemented in the Virginia youth leagues are much more strict than those in the NFL. As described in their rules (2025), The JDYFL does not allow any kickoffs or punts for players under 9 years old, as does the NTFL (*North Texas Football League Game Rules: 3rd Grade Rookie Tackle*, 2024). Roanoke's rules (2024) do not allow any kickoffs at any age level, but they do allow modified punts. The modified punt play allows the kicking team to punt the ball, however the receiving team may not advance the ball whatsoever. By not allowing kickoff or punt returns, these leagues are greatly reducing the chance of player injuries. Since the safety benefits of "non-kickoff" games have been proven in the New York high school league, one would assume that youth leagues would have implemented this rule at all levels of play. However The JDFYL and NTFL both revert back to high school standard kickoff rules for the over 9 age groups.

The reasoning behind this seemingly extremely reckless decision can be explained using technological momentum. Since the NFL's kickoff policies are extremely new, there is a lot of ongoing controversy around these rules. The new rules, along with the possibility of removing kickoffs from the game all together, were not received kindly by fans, as it is such a longstanding style of play in the sport (Christensen, 2024). While there is backlash, there is also praise for the safety benefits, especially from players. One high school player from the Bronx said, "the kickoff isn't as important as it seems to outside viewers… I just need to be healthy throughout the

season," expressing his support of the elimination of kickoffs as a trade-off for improved safety. Since there is not yet a public consensus on whether or not these plays should remain in the game, society will continue to push back on this new technology until it is the standard accepted system. Until all youth football leagues eliminate the kickoff, and modify punts to be contactless, the sport remains unsafe.

The second category of rule changes is equipment restrictions. None of the leagues included irregular equipment requirements. Infact, neither of the Virginia leagues have any specific equipment requirements in their rules. The NTFL did include pad requirements for players in their rules, however, they had no information about helmet requirements. This lack of specification is likely due to the fact that the leagues expect the players to follow the equipment guidelines laid out in high school rule books. The NFHS partners with the National Operating Committee on Standards for Athletic Equipment (NOCSAE) who develops the standards for football helmets used across all leagues ("Overview of the NOCSAE Youth Football Helmet Standard ND006," 2025). Just recently in February of 2025, NOCSAE announced that they were developing a new and revolutionary youth football helmet standard. This is the first of its kind and will be implemented starting in March of 2027, meaning that by that date, all leagues must ensure that their players are only using newly approved helmets. This is an exciting update, but it implies that the current football helmets being used by children are not actually safe for them. Another factor that questions the safety of the equipment being used by the youth leagues is the lack of refurbishment of equipment. Most of these leagues provide used equipment to players at the beginning of the season and just collect them at the end. This suggests that there is no upkeep of the equipment during the duration of the season, which is also unsafe. Given this information it would be erroneous to claim that youth tackle football is currently safe for kids.

Looking at the equipment availability using technological momentum, we can see an example of cultural lag. Cultural lag is the concept that social norms, values, and institutions often move slower than technology. This is seen in the lack of guardian cap usage at the youth age. Despite their success at preventing concussions in the NFL, guardian caps are only used in around 1000 youth leagues across the nation ("In Action," 2025). This is likely due to the fact that many players still degrade the looks of the helmet cover. One Baltimore Ravens player said, "It messes up everybody's swag on the field," indicating that he cared more about "looking cool" than being safe (Davenport, 2024). This is a perfect example of the social norm moving slower than the technology that has proven itself to be successful. This cultural lag is a large contributor to the technological momentum challenge that we are seeing in youth leagues. Until these Guardian caps are respected by society, they will not be mandated in the youth leagues, and thus youth leagues will continue to not be safe.

The final type of rule change to analyze at the youth level is practice regulations. Only one of the three youth leagues has any limitation on practices, which is the Roanoke league. They have a 90 minute time limit on all practices. Additionally, if the coaches decide to do a bonus practice, more than what is normally scheduled in a week, then that practice must be without pads. While there is some evidence of regulating contact in youth practices, it is disappointing to see a lack of implementation of these practice regulations at this level. On the other hand, all of the leagues do require their coaches to go through concussion training, so they are prepared and well informed in the case of an injury. Youth leagues do have a limitation in their ability to educate their players compared to the NFL because their players are likely not old enough to retain concussion protocol information, thus making them inherently less safe.

This lack of practice regulations in the youth league is likely due to the immense controversy over the current limitations in practices. Contactless practices have received a lot of negative feedback, as parents, fans, and coaches are concerned that limiting tackling at practice will decrease the skills of players. One parent, Mark Vorobiev, expressed concern that it doesn't let kids learn how to properly block and tackle (Lage, 2019). However, once again, these regulations are not going anywhere, for they greatly improve the safety of the sport. So again, until society aligns with these safety goals, they will not fully accept the new technological system.

Overall, of the three youth leagues I analyzed, the Roanoke league had the most beneficial rules to promote and foster safety. However, it is still lacking certain key safety characteristics like access to and upkeep of proper safety equipment. Thus, the youth football leagues analyzed in this paper, given their current rules and safety precautions, are not safe for children to be playing in. It can be assumed that if these three leagues, from different places in the country, did not have enough rules and regulations in place to keep kids safe, then most youth football leagues, across the country, also are not safe for kids.

Conclusion

Currently, youth tackle football poses many safety threats to children. The risk of minor, catastrophic, and fatal injuries, both short and long term, are much higher than any other sport. Despite years of awareness and concern, younger leagues have not been able to implement the same safety regulations as collegiate and professional levels due to cultural lag and push back from members of the community who are skeptical of change. While there are many social and physical developmental benefits to playing a team sport like tackle football, the long and short

term injury risks do not outweigh the reward. This point is made especially true when one considers the plethora of alternative options available, including the very similar, yet much less injury prone, flag football. Children have the opportunity to still gain all the benefits of a youth sport, without the risk, if they choose a sport other than tackle football. Given all the reasons mentioned throughout this paper, it is clear that tackle football is not safe for children to play. So when considering whether or not you should let your child, or anyone's child, play tackle football, err on the side of caution and say no. No child's life should be put at risk for a sport.

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