TAXES AND ATHLETIC PERFORMANCE: WHY NBA PLAYERS PERFORM BETTER IN LOW-TAX STATES

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I. INTRODUCTION

Professional athletes must pay state taxes to each state where their games are played.[1] With marginal state income tax rates ranging from 0% to 13.3%,[2] game locations can make a significant difference in a player's after-tax earnings.[3] This is sometimes referred to as the "jock tax."[4] For example, a player for the San Antonio Spurs who plays a game in California could pay up to a 13.3% California tax rate for that game (and there is talk of this being increased to 16.8%). But that same player who plays a game in Florida would not pay any tax, as those states do not have state income taxes. For some players, this means they would be able to keep thousands of dollars more for a game played in Florida than one in California. Changes to the tax code under President Trump make this disparity even greater because now the player cannot deduct the state taxes paid to California from his federal taxes.[5]

Extensive research has been conducted regarding state tax rates and professional athletes. These studies conclusively show that athletes consider state tax rates when considering which team to join, that teams in high-tax states are therefore at a disadvantage in acquiring talent, and that because of this disadvantage, these high-tax teams underperform when compared to teams in low- and no-tax states.[6] However, studies have yet to be conducted to measure how the various tax rates experienced by professional athletes in their away games affect athletic performance. This first-of-its-kind study fills this gap in the research. By using National Basketball Association (NBA) free throws, a player's performance can be considered in isolation without the interference of the opposing team, which would be present in every other NBA statistic. Therefore, this study also provides a valuable framework for analyzing mental states and athletic performance in athletes that can be applied in numerous applications in future research. Extensive research in sports psychology regarding how negative mental states produce diminished athletic performance infer that if players are upset when a game results

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1. James Alm, William H. Kaempfer & Edward Batte Sennoga, *Baseball Salaries and Income Taxes: The "Home Field Advantage" of Income Taxes on Free Agent Salaries*, 13 J. SPORTS ECON. 619, 623 (2012).

2. Timothy Vermeer, *State Individual Income Tax Rates and Brackets for 2023*, TAX FOUND. (Feb. 21, 2023), https://taxfoundation.org/publications/state-individual-income-tax-rates-and-brackets/.

3. Alm, Kaempfer & Sennoga, *supra* note 1.

4. Jared Walczak, *Tyreek Hill Moved to Lower His States Taxes, and He's Not Alone*, BLOOMBERG TAX (Oct. 12, 2022, 3:45 AM), https://news.bloombergtax.com/tax-insights-and-commentary/tyreek-hill-moved-to-lower-his-state-taxes-and-hes-not-alone (explaining how some states allow workers to spend up to 30 days in the state before they have any income tax obligation there but that there are "jock tax" exceptions that preclude athletes from taking advantage of this).

5. *See infra* note 23 and accompanying text.

6. *See infra* notes 9–22 and accompanying text.

in a higher tax burden, then their athletic performance in those games would be diminished.

The results of this study confirm this hypothesis. Players averaged significantly higher free-throw percentages in away games at no-tax states than they did in away games at high-tax states. This finding provides empirical support for a number of topics that were previously discussed only theoretically. This invites future research into areas such as the far-reaching implications of tax policy, the significance of sports psychologists, the importance of addressing mental states in athletes external to their past athletic performance, and the importance of team cohesion. Furthermore, the effects of mental states are likely applicable to the corporate world as well.[7] Therefore, this study invites future research into how mental states in general and state tax rates specifically might affect workplace performance, including collegiality, risk adverseness, discriminatory behaviors, and ethical corporate conduct. These issues are of increased importance in modern corporate America, where the ability of workers to telecommute is rapidly increasing.[8]

II. LITERATURE REVIEW

Prior to this Article, there were no studies on how disparate tax rates affect athletic performance. However, there is ample evidence to demonstrate a strong relationship between free agent athlete decisions and state tax rates. Because athletes prefer to play more games in no- and low-tax states, teams in high-tax states—where every home game is taxed at a high rate—must pay a premium to attract talent. Consequently, studies also find that teams in high-tax states are at a significant disadvantage regarding overall team performance. These existing studies, along with findings from sports psychologists regarding how mental states affect athletic performance, provide strong evidence in support of this Article's hypothesis: That athletes will perform better in no-tax states than they will in high-tax states.

A. State Tax Rates, Free Agent Decisions, and Team Performance

When athletes are deciding which team they want to play for, there are numerous variables to consider, such as proximity to friends and family, climate, potential playing time, chemistry with the coach, likelihood of winning a championship, and, of course, financial compensation. But increasingly, athletes are considering an additional

7. *See infra* notes 43–46.

8. *The Number of People Primarily Working from Home Tripled Between 2019 and 2021*, U.S. CENSUS BUREAU (Sept. 15, 2022), https://www.census.gov/newsroom/press-releases/2022/people-working-from-home.html.

factor that has a significant effect on take-home pay, that of state tax implications.[9]

A 2013 study of European football (American soccer) players found that tax rates significantly affect foreign player migration.[10] This study further found that the location elasticities are even greater at the upper end of the ability distribution, which is not surprising since those players would be more likely to be higher paid and therefore more likely to benefit from the tax savings given a progressive tax structure.[11] A 2017 study of professional golfers found that tax rates significantly affect where golfers choose to reside.[12] However, this same study found that racecar drivers disproportionately lived in North Carolina, a state with a moderately high income tax rate of 7.75%.[13] The explanation for this counterintuitive result was that of agglomeration. Racecar drivers are part of teams, and at the time of the research, over 90% of these racing teams operated in North Carolina.[14]

This incentive for athletes to play for teams in low- and no-tax states would naturally lead to an advantage for these teams. This is especially true in the modern era of salary caps and team luxury taxes in which teams in high-tax states are either limited in their ability to pay extra compensation to make up for the higher taxes (under a salary cap) or are penalized with a "tax" on annual payrolls over a threshold amount (luxury tax).[15] Empirical research supports this proposition. A 2012 study found that NBA teams with higher marginal income tax rates result in a decrease in the average skill of the free agents who migrate to that team.[16] Another 2012 study found that among professional baseball players, for every percentage point of state income tax, teams had to raise free agent salaries by $21,000 to $24,000 to compensate.[17]

This disadvantage in acquiring talent that high-tax teams face naturally affects team performance. A 2021 study measured team performance in the four major U.S. professional sports leagues: NBA, National Football League (NFL), National Hockey League (NHL), and

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9. Michael Weicher, *Taxation Is the Name of the Game for Professional Athletes*, BLOOMBERG TAX (Jan. 12, 2023, 3:45 AM), https://news.bloombergtax.com/tax-insights-and-commentary/taxation-is-the-name-of-the-game-for-professional-athletes.

10. Henrik Kleven, Camille Landaid & Emmanuel Saez, *Taxation and International Migration of Superstars: Evidence from the European Football Market*, 103 AM. ECON. REV. 1892, 1892 (2013).

11. *Id.*

12. Grant A. Driessen & Steven M. Sheffrin, *Agglomeration, Tax Differentials, and the Mobility of Professional Athletes*, 45 PUB. FIN. REV. 283, 283 (2016).

13. *Id.* at 284, 286.

14. *Id.* at 286.

15. Although, it could be argued that if the higher taxes lead to better local amenities, teams in high-tax states might not entice players away from low-tax states with higher pay. However, the evidence does not support this explanation. Erik Hembre, *State Income Taxes and Team Performance*, 29 INT'L TAX & PUB. FIN. 704, 706 (2021).

16. Nolan Kopkin, *Tax Avoidance: How Income Tax Rates Affect the Labor Migration Decisions of NBA Free Agents*, 13 J. SPORTS ECON. 571 (2012).

17. Alm, Kaempfer & Sennoga, *supra* note 1.

Major League Baseball (MLB).[18] The study found that after the introduction of free agency, changes in state income taxes significantly affected team performance.[19] For every percentage point increase in a state's highest marginal income tax rate, there was a corresponding 0.70 percentage point decrease in the win percentage for teams in that state.[20] This effect holds true even after controlling for a number of alternative tax rate measures.[21] The effect also holds true when changing the measurement outcome to championships and finals appearances.[22] However, this only proves the importance of attracting talent to a team; it does not prove the hypothesis of this Article, that the given players of a team will perform better in no-tax states than in high-tax states.

It is important to note that almost all of the existing studies on this subject were conducted with data from before the Tax Cuts and Jobs Act of 2017 (TCJA), which did not take effect until the 2018 tax year.[23] This is relevant because prior to the TCJA, everyone was able to deduct 100% of their state and local taxes from their federal income tax burdens, thus partially mitigating the negative effect of playing in high-tax states.[24] After the TCJA, this deduction was capped at $10,000, greatly increasing the federal tax burden on elite athletes when they play in high-tax states.[25] Therefore, the significant results found in these prior studies likely understate what those effects are today. Additionally, tax rates in some of the high-tax states have increased in recent years, thus accelerating the factors that produced the results in the existing literature.

Even worse for players who sign with a team in a high-tax state is how different income is considered under the tax code. Bonuses are paid separately from salary and are not conditioned on the performance of services; they are therefore taxed completely at the home residence state rate.[26] Furthermore, endorsements are generally taxed at the home state rate, and for some athletes, these sources of income can

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18. Hembre, *supra* note 15.

19. *Id.* at 706.

20. *Id*.

21. *Id.*

22. *Id.*

23. Tax Cuts and Jobs Act of 2017, Pub. L. No. 115-97, 131 Stat. 2054.

24. Although, for nearly all poor families and many middle-class families, this was a moot point, as simply taking the standard deduction in lieu of this deduction was better financially and easier. *See, e.g.*, Ardian Shaholli, *Trump Was Right About the SALT Cap*, BAINES REP. (Oct. 27, 2021), https://sites.utexas.edu/bainesreport/2021/10/27/trump-was-right-about-the-salt-cap/ (explaining that only 25% of households with incomes between $40,000 and $50,000 choose to itemize, based on 2016 data before the standard deduction rates were significantly raised).

25. *States with the Lowest Taxes and the Highest Taxes*, INTUIT TURBOTAX (Mar. 1, 2024, 5:04 PM), https://turbotax.intuit.com/tax-tips/fun-facts/states-with-the-highest-and-lowest-taxes/L6HPAVqSF. The ten states with the highest tax rates are California, Hawaii, New Jersey, Oregon, Minnesota, District of Columbia, New York, Vermont, Iowa, and Wisconsin. *Id.*

26. Weicher, *supra* note 9.

equal the amount of their athletic compensation.[27] Players in high-tax states are also negatively affected by how states calculate player income. All but a few states use the "duty days" method of allocation.[28] This means that state taxes are skewed toward the athlete's home state rate because practices, team meetings, and other team-related activities—which largely take place in the home state—are included.[29] Therefore, a player who lives and plays for a team in Oregon but plays 50% of his games out of state will nevertheless have to pay Oregon state tax for significantly more than half of his income from the team. These tax realities regarding bonuses, endorsements, and duty days provide further incentive for players to locate and play for teams in low-tax or no-tax states.

B. Sports Psychology, Mental States, and Athletic Performance

Physical performance is the result of complex interactions between various physical attributes, training exposure, and psychological factors. Extensive literature confirms the significant role psychology plays in athletic performance.[30]

Particularly relevant to the present research are the effects of anxiety and depression on athletic performance. Numerous studies demonstrate how these mental states negatively affect athletic performance. A 2006 study of Korean high school athletes found that lower rates of anxiety were correlated with higher athletic performance.[31] A 2015 study of footballers (American soccer players) found a negative correlation between anxiety and athletic performance.[32] A 2015 study of amateur and national basketball players in India found a negative correlation between anxiety and athletic

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27. Weicher, *supra* note 9.

28. *Id.*

29. *Id.*

30. *See, e.g.*, Áine MacNamara & Dave Collins, *Profiling, Exploiting, and Countering Psychological Characteristics in Talent Identification and Development*, 29 SPORT PSYCH. 73 (2015); Matthew G. Hallett & Bobby Hoffman, *Performing Under Pressure: Cultivating the Peak Performance Mindset for Workplace Excellence*. 66 CONSULTING PSYCH. J.: PRAC. & RSCH. 212 (2014); Declan Connaughton, Ross Wadey, Sheldon Hanton & Graham Jones, *The Development and Maintenance of Mental Toughness: Perceptions of Elite Performers*, 26 J. SPORTS SCI. 83 (2008); Áine MacNamara & Dave Collins, *The Role of Psychological Characteristics in Managing the Transition to University*, 11 PSYCH. SPORT & EXERCISE 353 (2010); Áine MacNamara, Angela Button & Dave Collins, *The Role of Psychological Characteristics in Facilitating the Pathway to Elite Performance Part 1: Identifying Mental Skills and Behaviors*, 24 SPORT PSYCH. 52 (2010); Sandra E. Short, Lindsay Ross-Stewart & Eva V. Monsma, *Onwards with the Evolution of Imagery Research in Sport Psychology*, 8 ATHLETIC INSIGHT 47 (2006); Melanie Gregg, Craig Hall & Esther Nederhof, *The Imagery Ability, Imagery Use, and Performance Relationship*, 19 SPORT PSYCH. 93 (2005).

31. Doug H. Han et al., *Influence of Temperament and Anxiety on Athletic Performance*, 5 J. SPORTS SCI. MED. 381, 382–85 (2006).

32. Vincent Parnabas, Julinamary Parnabas & Antoinette Mary Parnabas, *The Effect of Cognitive Anxiety on Sport Performances Among Football Players*, 2 INT'L J. INDIAN PSYCH. 1, 1 (2015).

performance.[33] A 2021 study of adult Pakistani athletes found a negative correlation between anxiety and athletic performance.[34] This study also found that team-sport athletes averaged higher levels of anxiety than individual-sport athletes.[35]

In the year 2000, Andrew M. Lane and Peter C. Terry provided a conceptual framework that predicted how depressed mental states would lead to poor athletic performance.[36] This is somewhat intuitive given the de-motivating effects of a depressed mood[37] and how positive psychological factors such as resilience, confidence, and determination play a significant role in elite performance.[38] Additionally, depressed moods are associated with a recollection of previous negative outcomes resulting in expectations of future failure—an association that is detrimental to athletic performance.[39]

Since the Lane and Terry framework of 2000, studies have confirmed the expected conclusion that depressed moods result in diminished athletic performance. A 2001 study of runners found that non-depressed athletes performed better than depressed athletes and that fatigue was higher in the depressed group.[40] A 2002 study of Australian swimmers found that mood scores accounted for 25% of the variance in athletic performance, with non-depressed swimmers outperforming depressed swimmers.[41] A 2004 study of secondary school and college athletes of various sports in London found that the no-depression group significantly outperformed the depressed-mood group.[42]

Studies also show that these sports psychology principles can be applied to the corporate world. This is not surprising when one realizes that—similar to athletic competition—corporate life is often highly competitive, stressful, and demanding.[43] Also, the ability to cope with failure is essential to success in both realms.[44] Recent studies have

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33. Vincent Parnabas, Julinamary Parnabas & Antoinette Mary Parnabas, *The Effect of Cognitive Anxiety on Sport Performances on Basketball*, 2 INT'L J. INDIAN PSYCH. 16, 16 (2015).

34. Noor Muhammad Marwat, Mohibullah Khan Marwat & Wasim Khan, *Effect of Different Types of Anxiety on Athletes Performance: Planning and Managing Strategy to Cope with Athletes Anxiety*, 10 CITY U. RSCH. J. 471, 478 (2020).

35. *Id.* at 480.

36. Andrew M. Lane & Peter C. Terry, *The Nature of Mood: Development of a Conceptual Model with a Focus on Depression*, 12 J. APPLIED SPORTS PSYCH. 16 (2000).

37. Andrew M. Lane, et al., *Mood and Concentration Grid Performance: Effects of Depressed Mood*, 2 INT'L J. SPORT & EXERCISE PSYCH. 133, 135 (2004).

38. MacNamara & Collins, *supra* note 30, at 74.

39. *Id.*

40. Andrew M. Lane, et al., *Mood and Performance: Test of a Conceptual Model with a Focus on Depressed Mood*, 2 PSYCH. SPORT & EXERCISE 157, 157 (2001).

41. Marc A. Janover & Peter C. Terry, *Relationships Between Pre-Competition Mood and Swimming Performance: Test of a Conceptual Model with an Emphasis on Depressed Mood*, 54 AUSTRALIAN J. PSYCH. 36, 36 (2002).

42. Lane et al., *supra* note 37, at 138.

43. Hallett & Hoffman, *supra* note 30, at 212.

44. *Id.*

posited that training used by sports psychologists to cultivate peak performance in athletes can largely be applied to the corporate world.[45] Additionally, the presence of a positive mindset has been shown to improve workplace performance on nearly every level, including productivity, creativity, and engagement.[46]

III. METHODOLOGY

Attempting to conceive of an objective measure from which to analyze the effects of state tax rates on individual athletic performance is inherently challenging. Simply using traditional statistics such as rebounds, tackles, runs batted in (RBIs), or assists is improper. This is because these metrics are all contingent upon the opposing players, who actively try to stop one from getting rebounds, tackles, RBIs, or assists. For example, if rebounds were the metric used, the improved ability of a player to get rebounds due to the positive mental state of playing in a no-tax state would be largely offset by the improved ability of opposing players to get rebounds instead, as they would also be experiencing a similar positive mental state from likewise performing in a no-tax state. This would also be true for other major sports, such as baseball, football, and hockey. In order to accurately measure differences in athletic performance in high-tax and low-tax states, a metric that removes the opposing team from consideration must be obtained. Fortunately, the sport of basketball provides such an uncontested circumstance. When an NBA player is given a free throw, the opposing players are barred from interfering. Fortunately, free throws occur frequently in every game, and the NBA season has forty-one away games each year, providing the ample data points needed to detect subtle differences with statistical significance.

A list of the ten states with the highest marginal state income tax rates was used to identify the high-tax states.[47] Instead of using the ten states with the lowest marginal tax rate, only teams playing in states with no income tax were used.[48] This is because there is an added convenience in playing in a no-tax state over a low-tax state in addition to saving money—not having to go through the hassle of filing taxes in that state. As one accountant for professional athletes explains, doing taxes for athletes competing in multiple states is a "nightmare," and his

45. *Id.*

46. Shawn Achor, *Positive Intelligence*, HARV. BUS. REV. (Jan.–Feb. 2012), https://hbr.org/2012/01/positive-intelligence.

47. The states with the highest income taxes are, in descending order, California, Hawaii, New Jersey, Oregon, Minnesota, District of Columbia, New York, Vermont, Iowa, and Wisconsin. *States with the Lowest Taxes and the Highest Taxes*, *supra* note 25.

48. The states with no income tax are Alaska, Florida, Nevada, South Dakota, Tennessee, Texas, Washington, and Wyoming. *Id.*

clients "moan about it."[49] This methodology produced the following high-tax teams: Sacramento Kings, Golden State Warriors, Los Angeles Clippers, Los Angeles Lakers, Portland Trailblazers, Minnesota Timberwolves, Brooklyn Nets, New York Knicks, and Washington Wizards.[50] The Canadian team of the Toronto Raptors was excluded from consideration, as its international nature might cause confusion as to how earnings there are taxed. The no-tax teams are the Dallas Mavericks, San Antonio Spurs, Houston Rockets, Memphis Grizzlies, Orlando Magic, and Miami Heat.[51]

With the high-tax and no-tax teams set, the next step was to identify which teams would be used to measure how their performance varies when they play away games in these two groups. Teams in high-tax states could not be used because their players would have to pay their home team high-tax rate even when playing in a no-tax state—assuming they are also residents of their teams' home states. Using no-tax teams would be ideal since they would pay no state income taxes while playing an away game in a no-tax state and would pay high state income taxes when playing an away game in a high-tax state. However, doing so would produce a logistical problem. A no-tax team, such as the San Antonio Spurs, should not be used because it is only a three-hour drive to play the Houston Rockets and a four-hour drive to play the Dallas Mavericks—both of which would be no-tax away games. The benefits of playing an away game with such minimal travel risks skewing the results. For example, if the San Antonio Spurs have a higher free-throw average in Dallas and Houston than in Portland and Sacramento, this could be more likely due to the exhausting effect of travel rather than the effects of state taxes. Furthermore, simply using the San Antonio Spurs and excluding their away games in Houston and Dallas is not a suitable solution, as Texas has three of the six no-tax NBA teams, thus not leaving enough no-tax teams for the San Antonio Spurs to play out-of-state away games at.

Therefore, teams with lower tax rates were needed as the teams to measure free-throw performance when they traveled to high-tax states compared to when they traveled to no-tax states. The average highest marginal state income tax from states with an income tax was 6.34%.[52] Therefore, it was determined that teams in states with less than a 5.0% income tax rate would be considered low-tax states, and teams in these

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49. Thomas Heath & Albert B. Crenshaw, *In Professional Sports, States Often Claim Players*, WASH. POST (Feb. 24, 2003), https://www.washingtonpost.com/archive/sports/2003/02/24/in-professional-sports-states-often-claim-players/200ba244-d18e-49c8-b90f-b40d1aabb2c0/.

50. Note that, while Washington, D.C., where the Wizards play, is technically not a state, its 8.95% tax rate would place it as the sixth highest state.

51. Note that while there is an unequal number of high-tax and no-tax teams, this is irrelevant, as this methodology only requires the comparison of the average free-throw performance between the two groups and not a direct comparison of any one team to another.

52. Vermeer, *supra* note 2.

states would be eligible for consideration. A final, logistical consideration was made. A team in a low-tax state would be excluded from consideration if its location made it disproportionately closer to either the high-tax teams or the no-tax teams, as this would introduce the previously mentioned problem of travel exhaustion, rather than state tax rates, being the differentiating factor in disparate performance. For example, the New Orleans Pelicans were excluded because they are closer to all six of the no-tax teams than they are to all eight of the high-tax teams. This methodology produced the following six low-tax teams: Charlotte Hornets, Cleveland Cavaliers, Denver Nuggets, Detroit Pistons, Indiana Pacers, and the Utah Jazz. Per-game free-throw averages were recorded for these six teams when playing an away game in any of the high-tax and low-tax states for the 2016–17, 2017–18, 2018–19, and 2022–23 seasons. Seasons that took place during 2020 and 2021 were excluded due to the abnormal nature of playing in "the bubble" due to COVID-19.[53] Playoff games were not considered, as the heightened stress of a playoff game and the abnormality of playing back-to-back away games at the same location[54] were determined to be too dissimilar from regular-season away games. Additionally, personal fouls were recorded for each of these games as a potential indicator of the players' mental states.

IV. RESULTS

The resulting dataset contained 465 games. The average free-throw percentage for these six teams when playing an away game in the high-tax states was 77.04%. When these six teams played an away game in a no-tax state, the average free-throw percentage was 78.9%. A simple, two-sample regression analysis assuming equal variances was used to check for statistical significance at the 95% level. This statistical significance was confirmed with a p-value of 0.028, well under the required 0.05.

For the personal fouls analysis, the average for these six teams when playing away games in high-tax states was 19.46, and the average when playing away games in no-tax states was 19.84. While this was a descriptive difference, it did not rise to statistical significance, with a p-value of only 0.166.

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53. *See generally* Tadd Haislop, *NBA Bubble, Explained: A Complete Guide to the Rules, Teams, Schedule & More for Orlando Games*, SPORTING NEWS (Aug. 26, 2020), https://www.sportingnews.com/us/nba/news/nba-bubble-rules-teams-schedule-orlando/zhap66a9hcwq1khmcex3ggabo (describing the bubble and its protocols).

54. It is true that during the regular season an NBA team may play two consecutive away games against the same team at the same location, but this is very rare.

V. DISCUSSION

The emphatic findings of this novel research, that NBA players perform better when in no-tax states compared to high-tax states, contribute greatly to the existing literature on how teams in high-tax rates are at a disadvantage in recruiting efforts and, consequently, in their win/loss records. With the findings in this research, these teams likely have the added disadvantage of their players performing more poorly. This is because when players from a high-tax team play an away game against a low-tax team, they still pay their home team's high state tax rate while their opponents pay no state income tax for that same game. As predicted in this study, this likely produces a disadvantageous mental state in the high-tax team. And this is on top of the well-documented disadvantage of playing against a home team.[55]

However, despite this significant contribution to the subject matter, it is unclear exactly how the findings of this research will affect sports-related policy. State and local politicians are unlikely to make decisions on tax policy based on probabilistic notions of improved athletic performance from local sports teams. Furthermore, the benefits experienced by local sports teams from reducing taxes would largely be mitigated because opposing teams from states with lower taxes would likewise benefit from the same reductions in state taxes.[56] This research could potentially affect league decisions regarding where to locate annual all-star games and championship games in sports that play championship games in neutral locations. Another potential impact this research could have is that demonstrating the importance of mental state on performance could lead teams and players to realize the value of sports psychologists, which have already been experiencing significant growth in recent years.[57]

While the methodology for this study was necessarily limited to free throws, there is no reason to believe that the effects uncovered regarding state tax rates and performance are limited just to free throws. The same mindsets that affect free-throw percentages would likely also affect performance in other facets of the game, such as rebounds, steals, assists, field goals, three-pointers, etc. The

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55. Jeremy P. Jamieson, *The Home Field Advantage in Athletics: A Meta-Analysis*, 40 J. APPLIED PSYCH. 1819, 1819 (2010).

56. For example, if the state of Oregon reduced its state income tax from 8.75% to only 3.0%, this would likely not benefit the team when playing home games against the no-tax teams from Texas and Florida, who would likewise benefit from the lower tax rate for that game. However, it may provide a benefit when playing home games against teams from California, who would cumulatively pay their home state tax rate of 13.3% for the game regardless of Oregon's state tax rate. But note that the findings mentioned in the literature review regarding how state tax rates significantly affect team recruiting—and, consequently, team win/loss records—would still be incurred from a team in a state that lowered its state income tax rate.

57. Bethan Clargo, *How Do Sports Psychologists View Their Own Rise in Sport? It's Complicated…*, ESPN (May 13, 2022), https://www.espn.com/espn/story/_/id/33895788/how-do-sports-psychologists-view-their-own-rise-sport-complicated.

methodological limits of measuring individual performance in sports where opposing players directly hinder the objectives of the other players simply do not allow for these metrics to be tested.

The importance of reducing a tax burden on high-income athletes is made more salient when one understands how, for these people, saving money is significantly better than earning an equivalent amount of money. This is because a dollar saved results in an additional dollar that can be spent, while a dollar earned will first be taxed before it can be spent. For example, a high-paid athlete living in Los Angeles may pay nearly half of each marginal dollar earned in combined state, local, and federal taxes.[58] Therefore, this athlete would need to earn an extra $2.00 to have the after-tax effect of saving $1.00.

The findings of this research regarding team fouls are less significant than the findings on free-throw accuracy. This is not only because the personal fouls analysis did not reach statistical significance but also because personal fouls are much less conclusive as a metric than free throws. While free throws are determined solely based on one player's performance without any effect from the opposing team's players, personal fouls are not. The explanation most in line with the findings of this study would be that there were more personal fouls in no-tax states because that is when the visiting team's players were more aggressive due to a heightened positive emotional state. Conversely, when playing in high-tax states, these players were slightly less aggressive due to a more negative emotional state. However, it could be argued that the higher personal fouls in no-tax states are inconsistent with the findings of this research since players try to avoid personal fouls, which they should be more successful at in no-tax states. But again, the lack of statistical significance and ambiguous nature of personal fouls means this metric is largely inconclusive.

Studies have demonstrated the success of various psychological intervention strategies on athletes.[59] However, these deal with the more salient mental states that athletes face, such as the fear of poor athletic performance. Mental states stemming from facing a high tax rate are far less likely to be addressed. The athletes themselves may not even make the connection and, therefore, would not know to discuss the issue with a sports psychologist.

Further relevant to this study is how negative mental states do not just produce diminished athletic ability; they can also alter in-game

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58. *California Income Tax Calculator 2022–2023*, FORBES, https://www.forbes.com/advisor/income-tax-calculator/california/?deductions=0&filing=single&income=10000000&ira=0&k401=0 (last visited May 3, 2023) (showing that someone who earns $6 million in California will pay 49.16% of total income to state, local, and federal taxes).

59. *See, e.g.*, Chris J. Gee, *How Does Sport Psychology Actually Improve Athletic Performance? A Framework to Facilitate Athletes' and Coaches' Understanding*, 34 BEHAV. MODIFICATION, 386, 396 (2010).

decision-making.[60] Self-doubt experienced as a product of a negative mental state may cause a player to pass rather than shoot due to a fear of missing.[61] Additionally, thoughts of worry, self-doubt, and apprehension may result in the athlete missing relevant external cues, such as a coach's instructions or an unguarded teammate, because these mental states are inward focusing.[62]

The findings of this study also illustrate the importance of mental states to team cohesion. Studies find that team-sport athletes experience more anxiety than individual-sport athletes.[63] Therefore, it is reasonable to believe that the consideration of different state tax rates results in heightened salience of player pay disparities, which may breed harmful animosity between players. A player ruminating over how he or she is paid less than a teammate with similar stats—or worse, being paid less than an untested rookie—would likely not lead to improved team cohesion, which is a significant contributing factor to success.[64] This is especially important among athletes such as NBA players, who, on average, have only 4.5 years to earn money in the league.[65]

The effects of cognitive anchoring may explain how the negative mindset produced from the consideration of taxes could be even more detrimental to athletic performance than other negative mindsets. Anchoring is a powerful behavioral bias whereby a person becomes anchored to a given mindset that unjustifiably biases future behavior.[66] For an example of how the negative mindset from taxes would be a more powerful anchor than other negative mindsets, consider the instance of a negative mindset from a past, poor athletic performance. Professional athletes already have experience handling such occurrences from competing in high school and college, which could help comfort the athlete, reinstilling the notion that this is only temporary. Individual performance is something that the athlete can exercise control over. Additionally, players may feel that they are unfairly singled out for discriminatory treatment, being part of only 1% of the population that pays nearly 50% of all state income taxes.[67] It is also easy to practice

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60. *Id.* at 394.

61. *Id.*

62. *Id.*

63. Marwat, Marwat & Kahn, *supra* note 34, at 480.

64. Albert V. Carron, Michelle M. Colman, Jennifer Wheeler & Diane Stevens, *Cohesion and Performance in Sport: A Meta Analysis*, 24 J. SPORT & EXERCISE PSYCH. 168, 168 (2002).

65. Shrot, *Average Basketball Career Length (All You Need to Know)*, AM. SPORTS PLANET (Oct. 22, 2022), https://americansportsplanet.com/average-basketball-career-length-all-you-need-to-know/.

66. Michael Conklin, *Combating Arbitrary Jurisprudence by Addressing Anchoring Bias*, 97 WASH. U. L. REV. ONLINE 1, 1 (2019).

67. Nicole Nixon, *Progressive Lawmakers Push for Tax on California Billionaires' Overall Net Worth*, CAPRADIO (Jan. 24, 2023), https://www.capradio.org/articles/2023/01/24/progressive-lawmakers-push-for-tax-on-california-billionaires-overall-net-worth/.

positive visualization regarding athletic performance, which has been shown to improve athletic performance.[68] Conversely, the negative mindset produced from considering a high tax burden is something completely outside the control of the athlete, thus creating a sense of powerlessness over the problem. They have no prior experience in high school or college preparing for it, and no amount of positive visualization will change it; not only is it something that never goes away—but it may even get worse as state taxes increase—and it may conjure up other financial issues thus perpetuating additional negative emotions.

A. Athlete Awareness

The entire premise behind the theory tested in this Article requires that NBA players be generally aware of the taxation effects of playing in high-tax states compared to no-tax states. Therefore, if a large majority of NBA players were ignorant of this reality, then the results of this study—as emphatic as they are—would be suspect. While there do not appear to be any surveys conducted on tax-policy literacy among NBA players, anecdotal evidence regarding professional athletes points strongly to the conclusion that most NBA players have a general understanding that games played in Texas and Florida are more lucrative than those played in California and New York.

NFL wide receiver Tyreek Hill rejected an offer from the New York Jets to instead play for the Miami Dolphins largely because of state taxes.[69] It is estimated that he will save $2.7 million in state and local taxes in his first season alone.[70] MLB player Charles Johnson demanded an additional $1 million to compensate for the tax differentials between no-tax Florida and moderate-tax Colorado resulting from his trade between the 2002 and 2003 seasons.[71] When asked where he would go if he left the Buffalo Bills, NFL safety Jordan Poyer replied that he "would love to go to a state that doesn't take half my money."[72] NHL player Jeff Halpern explained, "It's definitely a consideration for free agents because 1 or 2 percent [in taxes] on a big contract starts to add up . . . . A guy who plays in California is not making as much money as he would [if he lived and played] in Florida because of the taxes."[73]

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68. *See, e.g.*, Thomas Newmark, *Cases in Visualization for Improved Athletic Performance*, 42 PSYCHIATRIC ANNALS 385, 385 (2012).

69. Walczak, *supra* note 4 ("The Jets deal was 'very close to happening,' but 'those state taxes, man. I had to make a grown-up decision.' Hill told reporters.").

70. *Id.*

71. Alm, Kaempfer & Sennoga, *supra* note 1, at 620.

72. Patrick Gleason, *Another Athlete Speaks Out on the Impact of High State Tax Rates*, FORBES (Feb 28, 2023, 11:59 PM), https://www.forbes.com/sites/patrickgleason/2023/02/28/another-athlete-speaks-out-on-the-impact-of-high-state-tax-rates/?sh=130204107b53.

73. Heath & Crenshaw, *supra* note 49.

Coaches also face the same "jock tax" as the athletes and appear to be likewise aware of how this affects take-home pay both for themselves and their players. When asked why he moved from New York to Tennessee, former New York Islanders head coach Barry Trotz explained, "Taxes! Plain and simple. I'm not going to lie."[74] Former Orlando Magic coach Doc Rivers used to yell from the sidelines at free agents, "We have no state taxes . . . ."[75]

While the previous examples involve players at the higher end of the payroll, the lower-paid players in the league almost certainly hear of these comments. Athletes in team sports spend a great deal of time traveling together. It would be highly peculiar if the issue of state taxes—that uniquely affects everyone on the team—would never be discussed during the travel and hotel stays surrounding the forty-one away games per NBA regular season. The accountants and agents for professional athletes provide indications that their clients are well aware of different state taxes.[76] According to one sports agent, "[w]hile we don't encourage athletes to move just for tax reasons, there's a clear benefit to relocating to tax-free states."[77] Additionally, since 1986, all new NBA players go through a four-day Rookie Transition Program that includes explicit information on paying taxes in the different states they will perform in.[78]

Even if a few players on the team were unaware of how state taxes affect their take-home pay, just being in the presence of teammates who do, and therefore have a diminished positive attitude, could potentially have a similar, negative effect on these unaware players.[79]

As this section explains, all evidence points toward NBA players being aware of the state tax implications they face, which also conforms with the findings of this research. On this issue of player knowledge of state tax implications, it is interesting to note the potential role latent racism may play. In soliciting feedback from sports experts and tax experts on this project, the authors received more than one critique regarding how these NBA players surely are ignorant regarding state taxes. The NBA is approximately 70% African American,[80] and negative stereotypes regarding African American athletes and financial

74. Weicher, *supra* note 9.

75. Alm, Kaempfer & Sennoga, *supra* note 1, at 619.

76. Weicher, *supra* note 9 ("Today's professional athletes also have financial advisers and accountants who are telling them to consider state taxes in the net value of their contract offers.").

77. Heath & Crenshaw, *supra* note 49.

78. Shlomo Sprung, *Inside the NBA Rookie Transition Program*, BOARDROOM (Aug. 22, 2022), https://boardroom.tv/nba-rookie-transition-program/ ("Other discussions centered around . . . and how much money is taken away from state taxes for every city you play in.").

79. *See, e.g.*, Jamie Elmer, *Is Depression Contagious?*, HEALTHLINE (May 23, 2018), https://www.healthline.com/health/is-depression-contagious.

80. *Share of Players in the NBA from 2010 to 2023, by Ethnicity*, STATISTA, https://www.statista.com/statistics/1167867/nba-players-ethnicity/ (last visited May 3, 2023).

responsibility are pervasive.[81] It appears that—absent latent racism—the notion that athletes would be aware of the fairly simple concept of paying state taxes where performance is rendered would be largely uncontested.

VI. CONCLUSION

This first-of-its-kind study provides a novel framework for investigating the significant role an athlete's mental state plays in his or her athletic performance in general and how taxes and financial compensation affect performance more specifically. This fills a glaring gap in the existing research, as the issue of state tax rates on athletic performance was previously only discussed theoretically.

This Article will hopefully serve as a powerful catalyst to ignite future research on related topics. While expansion into other sports is limited by the necessity for some type of frequent, uncontested circumstance during the competition, there are some potential candidates. Tennis serves, track and field performance, baseball pitches, Professional Golfers' Association putting, and National Hot Rod Association drag racing reaction times could all potentially be used. Additionally, there are other, related topics that could be researched. Because of how "duty days" are accrued,[82] are injured athletes more likely to come back into play at a low-taxed game? How are athletes in different states willing to trade off future salary for an upfront signing bonus, which could potentially be taxed at a lower rate?[83] How has the recent Supreme Court decision to allow collegiate athletes to profit from their name, image, and likeness affected their tax-avoidance behaviors and performance?[84] Has recent, record inflation affected the mental states of athletes who chose more up-front money in the form of a signing bonus than at a later date in performance incentives? A qualitative survey of NBA players regarding their tax literacy would also provide valuable insight regarding this issue. The two authors of this Article predict that many would be surprised at how informed they are.

The findings of this research are not just relevant to athletic performance. People who work in the entertainment industry and anyone else who travels for work would potentially have their

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81. *See, e.g.*, Joseph Cooper, *Dangerous Stereotypes Stalk Black College Athletes*, THE CONVERSATION (Aug. 20, 2018, 6:31 AM), https://theconversation.com/dangerous-stereotypes-stalk-black-college-athletes-101655 (explaining how African American athletes are often deemed as inherently intellectually inferior).

82. *See infra* notes 28–29 and accompanying text.

83. Heath & Crenshaw, *supra* note 49 ("One way athletes can reduce their tax bill is to get as much money as possible up front in a signing bonus, and to receive that bonus as a resident of a tax-free state. If contracts are worded carefully, signing bonuses are not considered wages and an athlete can then avoid paying any state income tax, including the jock tax, on that money, agents say. The savings can reach hundreds of thousands of dollars for big-time players.").

84. *See* Nat'l Collegiate Athletic Ass'n v. Alston, 141 S. Ct. 2141 (2021).

performance affected for the same reason NBA players do. Musicians, comedians, actors, and directors often render services in various states. Many people with everyday jobs also travel out of state for work. While it would be difficult to objectively measure the performance of a director, a comedian, or a traveling consultant, in this era of increased workplace location flexibility and rising state taxes, workers who have the option are showing a significant preference for living and working in low- and no-tax states.[85] This demonstrates how important the issue is to them. Given the impacts the COVID-19 pandemic has had on remote work, further research on this topic involving careers outside of professional athletics is warranted.

85. Janelle Fritts, *Americans Moved to Low-Tax States in 2022*, TAX FOUND. (Jan. 10, 2023), https://taxfoundation.org/state-population-change-2022/.