

# MEASURING LAWYER MENTAL ILLNESS: EVIDENCE FROM TWO NATIONAL SURVEYS

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## I. INTRODUCTION

The well-being of lawyers is a prominent and significant topic among lawyers, policymakers, and researchers. Since the 1980s, dozens of surveys have found that lawyers experience high rates of burnout, stress, anxiety, depression, and alcohol misuse, among other conditions. In recent years, the American Bar Association's website claims that "research suggests that lawyers experience depression and substance abuse at higher rates than the general population,"<sup>3</sup> and the ABA's National Task Force on Lawyer Well-Being finds "an elevated risk in the legal community for mental health and substance use disorders."<sup>4</sup> Based on this evidence, the Task Force has declared that the legal profession is "languishing" in a "well-being crisis" and has issued more than 50 policy recommendations to law schools, law firms, state bars, and state courts.<sup>5</sup>

Yet, in a recent article, two Yale scholars (LN2021) called the empirical foundation of this well-being crisis into doubt. Rather than relying on surveys limited to lawyers, the authors analyzed data from the National Health Interview Survey (NHIS)—a national, representative sample collected by the U.S. Centers for Disease Control.<sup>6</sup> By aggregating ten years of NHIS data, the authors gathered a sample of 180,000 people, including approximately 1,000 lawyers—a much larger sample than the studies that preceded it.<sup>7</sup> Using this high-quality data, the authors found that only 6% of lawyers experienced moderate or severe mental illness—a rate that was significantly lower than the rate among the general public and not significantly higher than the rate among doctors, dentists, or similarly educated professionals.<sup>8</sup> "Contrary to the conventional wisdom," they concluded, "lawyers are not particularly unhappy."<sup>9</sup>

We supplement the NHIS data with another, especially rich set of data on mental illness—the National Survey of Drug Use and Health (NSDUH). The NSDUH offers several advantages over other the NHIS and other surveys. Most importantly, it has a nationally representative sample of 68,000 individuals per year, which typically includes between 200 and 300 lawyers. By aggregating eight-years of data, we can analyze responses from a large sample of individuals, as well as a large sample of lawyers. In addition, the NSDUH includes more mental health and well-being measures than the NHIS, including clinically validated measures mapped directly to mental illness diagnoses. This data allows us to cross-check the validity of our findings across multiple measures, and it increases the likelihood that our findings indicate the presence of clinically significant mental illness. The NSDUH survey provides more support than the NHIS survey for the conventional narrative that lawyers have relatively high rates of mental illness.

In absolute terms, the NSDUH detects higher rates of mental illness and substance abuse across the population, as compared to the NHIS. We are not the first researchers to remark on this pattern.<sup>10</sup> Previous researchers have offered two primary reasons why the NHIS might generate lower estimates of mental illness than the NSDUH. First, the NHIS asks sensitive questions face-to-face, while the NSDUH asks

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<sup>3</sup> American Bar Association, *Suicide*, A.B.A. (Nov. 21, 2017). Available at [https://www.americanbar.org/groups/lawyer\\_assistance/resources/suicide/](https://www.americanbar.org/groups/lawyer_assistance/resources/suicide/).

<sup>4</sup> American Bar Association, National Task Force on Lawyer Well Being, *The Path to Lawyer Well-Being 7*, A.B.A. (2017). Available at <https://www.americanbar.org/content/dam/aba/images/abanews/ThePathToLawyerWellBeingReportRevFINAL.pdf> [hereinafter ABA Report].

<sup>5</sup> *Id.* at 7, 14.

<sup>6</sup> Yair Listokin & Raymond Noonan, *Measuring Lawyer Well-Being Systematically: Evidence from the National Health Interview Survey*, 18 *J. Empirical Legal Stud.* 4, 6 (2021).

<sup>7</sup> *Id.* at 13.

<sup>8</sup> *Id.* at 16, 18 (Table 2).

<sup>9</sup> *Id.* at 4.

<sup>10</sup> [Comparison of NSDUH Mental Health Data and Methods with Other Data Sources - CBHSQ Data Review - NCBI Bookshelf \(nih.gov\)](#). In 2009, NSDUH (4.6); BRFSS 2007 (4.0); NHIS 2008 (3.1); MEPS 2008 4.8

sensitive questions online, granting more anonymity and privacy to respondents.<sup>1112</sup> Second, the NSDUH asks a much broader array of mental health questions, which may lead to increased comfort among respondents.

This is not to say, however, that our paper relies exclusively on NSDUH data. No survey is perfect, and the NSDUH has drawbacks too. Unfortunately, the NSDUH stopped asking detailed occupation questions in 2014, so it is no longer possible to identify and isolate lawyers within this rich dataset. As a result, our latest NSDUH data on lawyers is now ten years old. To fill this gap, we turn back to the NHIS data, which remains current through 2021.

Accordingly, we place the two surveys alongside each other. This technique allows us to marshal the largest nationally representative sample of data on lawyer mental illness collected to date. In addition, it enables us to track trends in the data over more than 15 year period and include new data from the post-pandemic era. Finally, it helps us seek to resolve the apparent tension between the NSDUH and NHIS, by closely examining whether and how the two surveys generate divergent results.

This emerging debate about the empirical literature on lawyer well-being raises several challenging questions: What is the best way to measure the scope of the well-being crisis? Can we determine whether it is limited to the legal profession or extends to other professions? What is the best way to measure the absolute prevalence of mental illness among lawyers and others? How can we determine which groups of lawyers are most affected, so that we can target interventions and resources to the groups with the greatest needs?

One challenging question in studying lawyer mental illness, mental health, and well-being is which are the best comparison groups for lawyers—or if we should be focusing on these types of comparisons at all. Even the best comparison groups we can generate are unlikely to yield a causal interpretation. That is, we are unable to disentangle what differences in mental illness are generated because people are working as lawyers from differential sorting into occupations correlated with preexisting differences in mental illness. While we are not convinced that the question can be definitively answered, there have been several promising approaches. For instance, LN2021 focused primarily on comparing lawyers to two groups: doctors, dentists, and veterinarians, and the general public. While both comparisons are relevant, the comparison to doctors seems especially apt as they more closely match lawyers on several important demographic and socio-economic characteristics.<sup>13</sup> There is a rich literature finding strong inverse correlations between mental health and educational attainment in both directions.<sup>14</sup> In light of this literature, it seems quite relevant to compare lawyers and doctors—two sizable populations with demanding jobs and

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<sup>11</sup> [Comparison of NSDUH Mental Health Data and Methods with Other Data Sources - CBHSQ Data Review - NCBI Bookshelf \(nih.gov\)](#) “ACASI is considered to be an anonymous data collection technique that yields higher reporting of sensitive behaviors (Epstein, Barker, & Kroutil, 2001; Kalfs & Saris, 1998; Moskowitz, 2004).”

<sup>12</sup> CITE

<sup>13</sup> CITE

<sup>14</sup> Alison K. Cohen et al., Association of Adult Depression With Educational Attainment, Aspirations, and Expectations. *Prev Chronic Dis* 2020;17:200098. DOI: <http://dx.doi.org/10.5888/pcd17.200098external icon>; Joshua Breslau et al., Mental disorders and subsequent educational attainment in a US national sample. *J Psychiatr Res*. 2008;42(9):708-716. doi:10.1016/j.jpsychires.2008.01.016; Perline A. Demange et al., Evaluating the causal relationship between educational attainment and mental health. Preprint. *medRxiv*. 2023;2023.01.26.23285029. Published 2023 Jan 26. doi:10.1101/2023.01.26.23285029; Pascale Esch et al., The downward spiral of mental disorders and educational attainment: a systematic review on early school leaving. *BMC Psychiatry* 14, 237 (2014). <https://doi.org/10.1186/s12888-014-0237-4>; Kristen Schultz Lee & Yulin Yang, Educational attainment and emotional well-being in adolescence and adulthood, *SSM - Mental Health*, Volume 2, 2022, 100138, ISSN 2666-5603, <https://doi.org/10.1016/j.ssmmh.2022.100138>; Lauren Gaydosh et al., College completion predicts lower depression but higher metabolic syndrome among disadvantaged minorities in young adulthood, 115 *PNAS* 109-114 (2017), <https://doi.org/10.1073/pnas.171461611>; Ismael G. Muñoz & Alexis R. Santos-Lozada, Educational attainment and psychological distress among working-age adults in the United States, *SSM - Mental Health*, Volume 1, 2021, <https://doi.org/10.1016/j.ssmmh.2021.100003>; Richard Allen Miech & Michael J. Shanahan, “Socioeconomic Status and Depression over the Life Course,” *41 Journal of Health and Social Behavior*, 162–76 (2000), <https://doi.org/10.2307/2676303>.

professional degrees. That said, we follow the literature in comparing lawyers to a comprehensive, mutually exclusive range of educational groups: people without a college degree (BA), people with a BA, people with another graduate degree, doctors, and the general public. This way, the reader can easily see the ways in which lawyers do, and do not, defy the educational gradient so commonly observed in the prevalence of mental illness.

Based on these comparisons, we reach a number of findings that contribute significantly to the debate on lawyer well-being. First, we find that lawyers experience moderate or severe psychological distress at significantly higher rates than the other educational groups, including the general public.<sup>15</sup> In addition, lawyers experience serious psychological distress significantly more often than people with a BA, people with a graduate degree, and doctors.

In the literature on lawyer well-being, some have expressed concern that lawyers are reluctant to seek mental health treatment. On the contrary, our data show that lawyers receive mental health treatment at significantly higher rates than any educational group, including the general public. This trend does not seem to be driven by the availability and costs of mental health care.

As previous studies have documented, the legal profession has a serious problem with alcohol. 9.3% of lawyers experience alcohol abuse and dependence. This rate is 55% higher than the rate among the general public, more than double the rate among doctors (4.1%), and significantly higher than the rate among all other groups.

Alcohol abuse and dependence is strongly correlated with driving while intoxicated. A staggering one in four (24.7%) lawyers report driving while intoxicated. This is more than double the rate among the general public (11.5%) and higher than the rates among all other groups.

Using a more sophisticated, clinically validated measure of mental illness, we find that 21.3% of lawyers have a mental illness, compared to just 11.9% of doctors. Similarly, 6.3% of lawyers have a serious mental illness, compared to 2% of doctors. Both of these differences are substantively and statistically significant.

When we break down our findings by age and gender, we see distinct patterns in the distribution of mental illness. Female lawyers are more likely to experience moderate or severe psychological distress than male lawyers. Similarly, younger lawyers (between the ages of 26 and 34) are more likely to experience moderate or severe psychological distress than older lawyers (over age 50). The same gender and age patterns hold true for serious psychological distress.

It is important to reiterate that, like previous work in this field, our findings cannot tell us anything about causal effects—i.e., how becoming or being a lawyer affects mental health. Given the descriptive nature of our data, we cannot determine whether individuals who are vulnerable to mental illness and substance misuse are more likely to become lawyers, whether some aspects of legal education may increase rates of mental illness and substance abuse among future lawyers, or whether aspects of the legal profession or the practice of law increase rates of mental illness and substance misuse, especially among certain subgroups of lawyers. But even without knowing the exact cause of these problems, knowing which groups are struggling may allow reformers to efficiently allocate resources to the groups who have the highest needs.

## II. PREVIOUS STUDIES ON LAWYER MENTAL HEALTH AND SUBSTANCE USE

The history of studies on lawyer well-being is an interesting one. Since the 1980s, dozens of surveys have found that lawyers experience high levels of anxiety, depression, burnout, and alcohol misuse, among other conditions.<sup>16</sup> One of the most widely cited early studies was based on a random survey of Washington lawyers.<sup>17</sup> The study found that 19% experienced depression, 18% had alcohol-related problems, and 5%

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<sup>15</sup> Here we are referring the psychological distress within the past year.

<sup>16</sup> See Appendix Table 1.

<sup>17</sup> G. Andrew H. Benjamin et al., *The Prevalence of Depression, Alcohol Abuse, and Cocaine Abuse Among United States Lawyers*, 13 *Int'l J.L. & Psychiatry* 233, 234 (1990).

had both conditions.<sup>18</sup> In addition, the study found that a majority of the lawyers with depression were experiencing suicidal ideation.<sup>19</sup> As the study noted, these rates of depression and alcohol misuse were significantly higher than estimates of the rates in the general public.<sup>20</sup>

In 2016, the American Bar Association (ABA) sought to build upon this empirical literature by funding the largest study of lawyer mental health ever conducted. After recruiting 12,825 lawyers from 19 states, the survey found that 28.3% experienced depression, 19.2% experienced anxiety, and 20.6% experienced alcohol misuse.<sup>21</sup>

This study quickly became influential, providing the foundation of a new professional movement to promote lawyer well-being. Six months after it was published, the ABA established a National Task Force on Lawyer Well-Being.<sup>22</sup> Within a year, the Task Force issued a report declaring that the legal profession was “languishing” in a “well-being crisis” and providing a long list of recommendations for courts, state bars, law firms, and law schools.<sup>23</sup> To justify these recommendations, the Task Force relied heavily on the 2016 study, referring to it as “the Study” throughout the report.<sup>24</sup>

By any metric, the legal profession’s response to the Task Force’s well-being report has been impressive. Under the guidance of state supreme courts, 40 of the 50 state bars have now established well-being committees,<sup>25</sup> which have issued new regulations, conducted surveys, hired consultants, and launched a wide range of initiatives. More than 220 legal organizations have signed the ABA’s Well-Being Pledge, including many of the industry’s leading firms.<sup>26</sup> A recent survey found that two-thirds of law schools now offer students mindfulness programs, nearly half provide on-site counseling, and one-third offer yoga classes.<sup>27</sup> The Task Force has now become the Institute for Well-Being in Law, which hosts a podcast, advises state bar commissions, and consults with law firms.<sup>28</sup> The lawyer well-being movement has taken root.

A recent paper published in the *Journal of Empirical Legal Studies* (LN2021) claimed that the empirical foundation of the well-being movement was weak because previous surveys on lawyer well-being suffered from basic methodological flaws:<sup>29</sup> they had low response rates,<sup>30</sup> inconsistent questions,<sup>31</sup> and no comparison groups,<sup>32</sup> and they relied on nonrandom, unrepresentative samples.<sup>33</sup> For these reasons, LN2021 argued that previous surveys could not be compared to each other, could not compare lawyers to other groups, and were not representative of all U.S. lawyers. The authors were especially focused on critiquing

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<sup>18</sup> Id. at XXX.

<sup>19</sup> Id. at XXX.

<sup>20</sup> Id. at XXX.

<sup>21</sup> P.R. Krill et al., *The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys*, 10 *J. Addiction Med.* 46 (2016).

<sup>22</sup> American Bar Association, *National Task Force on Lawyer Well Being, Cover Letter to The Path to Lawyer Well-Being 1*, A.B.A. (2017).

<sup>23</sup> American Bar Association, *National Task Force on Lawyer Well Being, The Path to Lawyer Well-Being 7, 14, 12-46* A.B.A. (2017).

<sup>24</sup> Id. at 7 & passim.

<sup>25</sup> Institute for Well-Being in Law, *The Well-Being in Law Movement is Sweeping the Nation*. Available at <https://lawyerwellbeing.net/> (clickable map of committees and initiatives).

<sup>26</sup> American Bar Association, *Well-Being in the Legal Profession: Well-Being Pledge Campaign, Pledge Members*. Available at [https://www.americanbar.org/groups/lawyer\\_assistance/well-being-in-the-legal-profession/](https://www.americanbar.org/groups/lawyer_assistance/well-being-in-the-legal-profession/).

<sup>27</sup> Jordana A. Confino, *Where Are We on the Path to Law Student Well-Being?: Report on the ABA CoLAP Law Student Assistance Committee Law School Wellness Survey*, 68 *J. Legal Educ.* 650 (2019).

<sup>28</sup> Institute for Well-Being in Law, *The Path to Well-Being in Law*. Available at <https://lawyerwellbeing.net/podcast/>.

<sup>29</sup> Yair Listokin & Raymond Noonan, *Measuring Lawyer Well-Being Systematically: Evidence from the National Health Interview Survey*, 18 *J. Empirical Legal Stud.* 4 (2021).

<sup>30</sup> Id. at 8.

<sup>31</sup> Id.

<sup>32</sup> Id. at 10.

<sup>33</sup> Id. at 5, 7.

the ABA's 2016 study, which provided the empirical basis for the ABA's 2017 well-being report.<sup>34</sup> The concerns LN2021 raised are important and can significantly alter the interpretation of many previous studies. Unless the concerns and critiques raised are addressed, it is unclear how much we know about the lawyer rates of mental illness.

To address these shortcomings, the authors aggregated ten years of data from the NHIS, composing the largest study of lawyer well-being to date.<sup>35</sup> Analyzing this data, the authors found that only 6% of lawyers experienced moderate or severe mental illness—a rate significantly lower than the general public and not significantly higher than doctors.<sup>36</sup> “Contrary to the conventional wisdom,” they concluded, “lawyers are not particularly unhappy. Indeed, they suffer rates of mental illness much lower than the general population. Lawyer mental health is not significantly different than the mental health of similarly educated professionals, such as doctors and dentists.”<sup>37</sup> Based on these findings, they concluded that reformers “should not take as their starting point that the problem is the profession itself.”<sup>38</sup>

Although “well-being” is a hot topic in the legal profession, there are few empirical studies that comprehensively measure it. Many empirical studies measure the “job satisfaction” of lawyers,<sup>39</sup> a metric often conflated with lawyer “happiness” in the literature.<sup>40</sup> While job satisfaction may be an aspect of well-being, it is not the main evidence for the ABA's claim that the legal profession is experiencing a “well-being crisis.” More than anything else, the claim of a crisis is founded on studies that measure the prevalence of lawyer mental illness and substance use.<sup>41</sup>

In this section, we systematically review all previous literature on mental illness and substance abuse among lawyers to date. There are two types of empirical studies on the mental health and substance use of lawyers: “lawyer-only studies” and “occupational studies.” To date, the lawyer-only studies have been the exclusive focus of scholars and journalists in discussions of lawyer well-being. This is unfortunate. As we explain below, the occupational studies address many of the methodological shortcomings of the lawyer studies.

### *A. The Lawyer-Only Studies*

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<sup>34</sup> Id. at 8-9.

<sup>35</sup> Id. at 13.

<sup>36</sup> Id. at 16, 18 (Table 2).

<sup>37</sup> Id. at 4.

<sup>38</sup> Id. at 32.

<sup>39</sup> See, e.g., Susan Daicoff, *Lawyer, Know Thyself: A Review of Empirical Research on Attorney Attributes Bearing on Professionalism*, 46 *Am. U. L. Rev.* 1337 (1997); Patrick J. Schiltz, (1999) *On Being a Happy, Healthy, and Ethical Member of an Unhappy, Unhealthy, and Unethical Profession*, 52 *Vand. L. Rev.* 871, 881 (1999); Kathleen E. Hull, *Cross-Examining the Myth of Lawyers' Misery*, 52 *Vand. L. Rev.* 971 (1999); Richard Delgado & Jean Stefancic, *Can Lawyers Find Happiness?* 58 *Syracuse L. Rev.* 241, 247 (2007); Jerome M. Organ, *What Do We Know About the Satisfaction/Dissatisfaction of Lawyers? A Meta-Analysis of Research on Lawyer Satisfaction and Well-Being*, 8 *U. St. Thomas L.J.* 225 (2011); David L. Chambers, *Overstating the Satisfaction of Lawyers*, 39 *L. & Soc. Inquiry* 313 (2014); John Monahan & Jeffrey Swanson, *Lawyers at the Peak of Their Careers: A 30-Year Longitudinal Study of Job and Life Satisfaction*, 16 *J. Empirical Legal Stud.* 4 (2019).

<sup>40</sup> See Schlitz, *supra* note \_\_; Delgado & Stefancic, *supra* note \_\_; Nancy Levit & Douglas O. Linder, *The Happy Lawyer: Making a Good Life in the Law* 1-17 (2010).

<sup>41</sup> American Bar Association, *supra* note \_\_, at 7.

The lawyer studies date back to 1987.<sup>42</sup> We systematically detail these studies in Appendix Table 2. They appear in peer-reviewed academic journals,<sup>43</sup> bar association journals,<sup>44</sup> and unpublished dissertations.<sup>45</sup> These are studies that focus exclusively on lawyers and do not include non-lawyers. In most of them, surveys were sent to the members of a single state's bar<sup>46</sup> or a random subsample of a state's bar.<sup>47</sup> In two-thirds of them, response rates were lower than 30%<sup>48</sup> or were not reported.<sup>49</sup> None used national samples. None included other groups to which lawyers could be compared. As a result, these studies have produced wildly varying estimates of the prevalence of mental illness and alcohol misuse among lawyers—e.g., from as low as 10%<sup>50</sup> to as high as 43%.<sup>51</sup>

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<sup>42</sup> Allan McPeak, *Lawyer Occupational Stress*, unpublished dissertation, University of Wisconsin, Madison (1987) (on file with authors).

<sup>43</sup> G.A. Benjamin et al., *The prevalence of depression, alcohol abuse, and cocaine abuse among United States lawyers*, 13 *Int. J. L. & Psychiatry* 233 (1990). Available at doi:10.1016/0160-2527(90)90019-y; Connie J.A. Beck et al., *Lawyer Distress: Alcohol-Related Problems and Other Psychological Concerns among a Sample of Practicing Lawyers*, 10 *J. L. & Health* 1 (1995); Susan Saab Fournety, *Soul for Sale: An Empirical Study of Associate Satisfaction, Law Firm Culture, and the Effects of Billable Hour Requirements*, 69 *UMKC L. Rev.* 239 (2000); Andrew P. Levin & Scott Greisberg, *Vicarious Trauma in Attorneys*, 24 *Pace L. Rev.* 245 (2003). Available at doi: 10.58948/2331-3528.1189; Andrew P. Levin et al., *Secondary traumatic stress in attorneys and their administrative support staff working with trauma-exposed clients*. 199 *J. Nervous Mental Disorders* 946 (2011). Available at doi:10.1097/NMD.0b013e3182392c26; Andrew P. Levin et al., *The effect of attorneys' work with trauma-exposed clients on PTSD symptoms, depression, and functional impairment: a cross-lagged longitudinal study*, 36 *Law & Human Behavior*, 538 (2012). Available at doi:10.1037/h0093993; P.R. Krill et al., *The Prevalence of Substance Use and Other Mental Health Concerns Among American Attorneys*, 10 *J. Addiction Med.* 46 (2016); Justin Anker & Patrick R. Krill, *Stress, drink, leave: An examination of gender-specific risk factors for mental health problems and attrition among licensed attorneys*, 16 *PLoS One* e0250563 (2021). Available at doi:10.1371/journal.pone.0250563; Patrick R. Krill et al., *Stressed, Lonely, and Overcommitted: Predictors of Lawyer Suicide Risk*, 11 *Healthcare (Basel)* 536 (2023). Available at doi:10.3390/healthcare11040536; Matthew S. Thiese, *Depressive Symptoms and Suicidal Ideation Among Lawyers and Other Law Professionals*, 63 *J. Occupational & Environmental Med.* 381 (2021). Available at doi: 10.1097/JOM.0000000000002127.

<sup>44</sup> American Bar Association, *Young Lawyers Division, State of the Legal Profession* (1990) (on file with authors); North Carolina Bar Association, *Report and Recommendations of the Quality of Life Task Force* (1990) (on file with authors); Alabama State Bar, *Report of the Alabama State Bar Quality of Life Survey* (2006) (on file with authors); North Carolina Bar Association, *Work and Well-Being: A Survey of North Carolina Professionals* (2010) (on file with authors); The Florida Bar, *Results of the Young Lawyers Division Mental Health & Wellness in the Legal Profession Survey* (2019). Available at <https://tinyurl.com/2dhe2z5w>; Jenna Sirkin, *Final Report: Lawyer Well-Being in Massachusetts* (2023). Available at <https://tinyurl.com/39s76w3n>; New Jersey State Bar Association, *Putting Lawyers First Task Force, An Excerpt of the Report and Recommendations on Improving the Legal Profession for Lawyers* (2023). Available at <https://tinyurl.com/mwwbccsc>.

<sup>45</sup> Allan McPeak, *Lawyer Occupational Stress*, unpublished dissertation, University of Wisconsin, Madison (1987) (on file with authors); Mary Howren Howerton, *The relationship between attributional style, work addiction, perceived stress, and alcohol abuse on depression in lawyers in North Carolina*, unpublished dissertation, University of North Carolina at Charlotte (2004) (on file with authors).

<sup>46</sup> North Carolina Bar Association (1990), *supra* note \_\_; The Florida Bar, *supra* note \_\_; Sirkin, *supra* note \_\_; New Jersey State Bar Association, *supra* note \_\_.

<sup>47</sup> American Bar Association, *supra* note \_\_; Benjamin et al., *supra* note \_\_; Fournety, *supra* note \_\_; Howerton, *supra* note \_\_; Alabama State Bar, *supra* note \_\_; North Carolina Bar Association (2010), *supra* note \_\_; Anker & Krill, *supra* note \_\_; Thiese et al., *supra* note \_\_ (partially randomized).

<sup>48</sup> McPeak, *supra* note \_\_; North Carolina Bar Association (1990), *supra* note \_\_; Howerton, *supra* note \_\_; Alabama State Bar, *supra* note \_\_; The Florida Bar, *supra* note \_\_; Anker & Krill, *supra* note \_\_; Sirkin, *supra* note \_\_; New Jersey State Bar Association, *supra* note \_\_.

<sup>49</sup> Levin & Greisberg, *supra* note \_\_; North Carolina Bar Association (2010), *supra* note \_\_; Krill et al., *supra* note \_\_; Thiese, *supra* note \_\_.

<sup>50</sup> North Carolina Bar Association (2010), *supra* note \_\_.

<sup>51</sup> The Florida Bar, *supra* note \_\_.

As LN2021 observed, both the ABA and many journalists have relied on these studies to claim that “lawyers experience depression and substance abuse at higher rates than the general population,” and that the legal profession faces “an elevated risk of . . . for mental health and substance use disorders.”<sup>52</sup> We agree with LN2021 that this is not a valid inference from the lawyer studies. Because of the methodological limitations identified by LN2021, these studies provide a weak empirical foundation for claims that lawyers experience higher rates of mental illness and alcohol misuse than other occupations. More importantly, because of these limitations, such studies are unlikely to reflect the true prevalence of mental illness and alcohol misuse among lawyers.

This criticism is not new. For more than twenty years, scholars have objected that studies of lawyer job satisfaction may be subject to nonresponse bias.<sup>53</sup> The criticism was not heeded then, and it is not heeded now. Even since LN2021 was published, authors have continued to publish remarkably similar work, which suffers from the same methodological limitations.

In recent years, for example, the lead author of the ABA’s 2016 study published a pair of new studies on lawyers from California and Washington, D.C., who were randomly recruited from a list of 80,000 bar members.<sup>54</sup> The survey’s response rate was 6%.<sup>55</sup> Based on responses from 2,863 lawyers, one study found that 47.7% experienced depression, 48.3% experienced anxiety, 51.3% engaged in risky drinking, and 29.8% engaged in hazardous drinking.<sup>56</sup> Based on responses from 1,962 lawyers, another study found that 8.5% experienced suicidal thoughts at least “several days” in the last two weeks.<sup>57</sup> In a similar vein, recent studies have found high rates of depression, anxiety, suicidal ideation, and alcohol misuse based on surveys of lawyers in Massachusetts,<sup>58</sup> New Jersey,<sup>59</sup> and Utah.<sup>60</sup> Although the response rates of these studies were not reported, the available evidence suggests that they are below 10%.<sup>61</sup>

### *B. The Occupational Studies*

The occupational studies date back to 1990.<sup>62</sup> We detail these studies in Appendix Tables 3 and 4. Although the lawyer and occupational studies were published during the same time period, each group rarely cites the other group’s work.<sup>63</sup>

The occupational studies address many of the criticisms that have been levied against the lawyer studies. They are all based on random samples.<sup>64</sup> All but one are based on nationally representative

<sup>52</sup> LN2021 at 4-5 (citing ABA website, ABA report, and three articles).

<sup>53</sup> Hull, *supra* note \_\_; Organ, *supra* note \_\_; Chambers, *supra* note \_\_; Monahan & Swanson, *supra* note \_\_.

<sup>54</sup> Anker & Krill, *supra* note \_\_.

<sup>55</sup> *Id.* at \_\_.

<sup>56</sup> *Id.* at \_\_.

<sup>57</sup> Krill et al. (2023), *supra* note \_\_.

<sup>58</sup> Sirkin, *supra* note \_\_.

<sup>59</sup> New Jersey State Bar Association, *supra* note \_\_.

<sup>60</sup> Thiese, *supra* note \_\_.

<sup>61</sup> In Massachusetts, 4,450 lawyers responded out of an estimated 58,382 state bar members. Sirkin, *supra* note \_\_. In New Jersey, 1,643 responded out of an estimated 18,000 state bar members. New Jersey State Bar Association, *supra* note \_\_. In Utah, 554 lawyers responded out of an estimated 12,000 bar members. Thiese, *supra* note \_\_.

<sup>62</sup> William W. Eaton et al., Occupations and the prevalence of major depressive disorder, 32 *J. Occup. Med.* 1079 (1990). Available at doi: 10.1097/00043764-199011000-00006.

<sup>63</sup> The only exception is Eaton, *supra* note \_\_, an occupational study often cited in lawyer studies. Eaton finds that lawyers have the highest risk of depression among all occupations, with an adjusted odds ratio of 3.562. *Id.* at 1085 (Table 3).

<sup>64</sup> Eaton et al., *supra* note \_\_; Frederick S. Stinson et al., Prevalence of DSM-III-R alcohol abuse and/or dependence among selected occupations: United States, 1988, 16 *Alcohol Health & Research World* 165 (1992); James W. Grosch & Lawrence R. Murphy, Occupational differences in depression and global health: results from a national sample of US workers, 40 *J. Occup. Environ. Med.* 153 (1998); Michael R. Frone, Prevalence and distribution of illicit drug use in the workforce and in the workplace: findings and implications from a U.S. national survey, 91 *J. Appl.*



samples.<sup>65</sup> They tend to have high response rates, usually greater than 70%.<sup>66</sup> And because they survey people from all occupations, they include many other groups to which lawyers can be compared.<sup>67</sup>

The findings of the occupational studies are mixed. Some studies have found that lawyers experience higher rates of mental illness and substance use than other occupations.<sup>68</sup> One early study found that lawyers experience the highest rate of major depressive disorder of all occupations.<sup>69</sup> Another found that lawyers experience alcohol dependence and abuse four times more often than doctors.<sup>70</sup> A more recent study found that lawyers experience alcohol dependence and abuse two times more often than doctors.<sup>71</sup>

However, other studies have yielded contrary results. One study found that lawyers were not significantly more likely to experience depression than other occupations.<sup>72</sup> Another study found that the rate of suicide among lawyers was significantly lower than average and not significantly higher than the rate among doctors.<sup>73</sup> Finally, a recent study found that lawyers were less likely than other occupations to develop a serious mental illness with substantial impairment.<sup>74</sup>

To some extent, the variability among these studies may be explained by the sample sizes. These studies typically include tens of thousands of workers and fewer than two hundred lawyers.<sup>75</sup> As a result, they are often underpowered to detect statistically significant differences between lawyers and other occupations.<sup>76</sup>

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Psychol. 856 (2006); Sharon L. Larson et al., *Worker Substance Use and Workplace Policies and Programs* (2007) (DHHS Publication No. SMA 07-4273, Analytic Series A-29), Substance Abuse and Mental Health Services Administration, Office of Applied Studies; Taylor M. Shockey et al., *Health-Related Quality of Life Among US Workers: Variability Across Occupation Groups*, 107 *Am. J. Public Health* 1316 (2017); Seth J. Prins et al., *Mental illness, drinking, and the social division and structure of labor in the United States: 2003-2015*, 62 *Am. J. Industrial Med.* 131 (2019); Listokin & Noonan, *supra* note \_\_; James N. Laditka et al., *Psychological distress is more common in some occupations and increases with job tenure: a thirty-seven year panel study in the United States*, 11 *BMC Psychol* 95 (2023). <https://doi.org/10.1186/s40359-023-01119-0>.

<sup>65</sup> The only exception is Eaton, *supra* note \_\_, a survey based on random probability samples of about 3,000 people residing at households in five separate sites. *Id.* at 1079.

<sup>66</sup> See Stinson et al., *supra* note \_\_ (reporting 87% response rate); Grosch & Murphy, *supra* note \_\_ (reporting 72% response rate); Larson et al., *supra* note \_\_ (reporting 91% response rate); Listokin & Noonan, *supra* note \_\_ (reporting response rates ranging from 67% to 82% in different years). The only exception is a telephone survey analyzed by Shockey et al., *supra* note \_\_, which reported a response rate of 37.8% for cellphones and 49.6% for landlines.

<sup>67</sup> See, e.g., Eaton et al., *supra* note \_\_ at 1081-82, Table 1, comparing lawyers to 104 other occupations and occupational groups.

<sup>68</sup> Eaton et al., *supra* note \_\_; Stinson et al., *supra* note \_\_; Larson et al., *supra* note \_\_.

<sup>69</sup> Eaton et al., *supra* note \_\_, at 1085 (Table 3).

<sup>70</sup> Stinson et al., *supra* note \_\_, at 167-68 (Table 1).

<sup>71</sup> Compare Larson et al., *supra* note \_\_, at 132 (Table 3.4), with *id.* at 133 (Table 3.4).

<sup>72</sup> Grosch & Murphy, *supra* note \_\_, at 157 (Table 3).

<sup>73</sup> Cora Peterson et al., *Suicide Rates by Industry and Occupation — National Violent Death Reporting System*, 32 *States 69 Morbidity & Mortality Weekly Rep.* 57 (2020). Available at doi:10.15585/mmwr.mm6903a1external icon. See also Cora Peterson et al., *Suicide Rates by Major Occupational Group — 17 States, 2012 and 2015*, 67 *Morbidity Mortality Weekly Rep.* 1253 (2018). Available at doi:10.15585/mmwr.mm6745a1.

<sup>74</sup> Laditka et al., *supra* note \_\_, at 4 (Table 1).

<sup>75</sup> Grosch & Murphy, *supra* note \_\_, at 157 (Table 3) (45 lawyers); Laditka et al., *supra* note \_\_ (PSID includes 56 individuals “in the legal profession”).

<sup>76</sup> In addition to the occupational studies mentioned in the text, there are a number of studies that compare “legal occupations” to other occupational groups. See, e.g., Michael R. Frone, *Prevalence and distribution of illicit drug use in the workforce and in the workplace: findings and implications from a U.S. national survey*, 91 *J. Appl. Psychol.* 856 (2006). Available at: doi: 10.1037/0021-9010.91.4.856 (finding that “illicit drug use and impairment in the workplace was higher among the legal professions,” with odds ratios ranging from 2.24 to 6.84); Taylor M. Shockey et al., *Health-Related Quality of Life Among US Workers: Variability Across Occupation Groups*, 107 *Am J Public Health* 1316 (2017). Available at doi: 10.2105/AJPH.2017.303840 (finding that . In 2017, another study found that the rate of

### III. EVIDENCE FROM THE NATIONAL SURVEY ON DRUG USE AND HEALTH: 8-YEAR 2006—2013 RDAS

In this section, we present our analysis from NSDUH 2006-2013. By aggregating eight years of this national survey, we are able to consider survey evidence based on 544,000 individuals, including approximately 2,200 lawyers. Taken together, it represents the largest sample of lawyer mental health ever analyzed. As we will describe later, we analyze this data through a restricted data portal and are unable to access the raw microdata; this means that we are unable to report the exact size of the sample we analyze. The NSDUH's portal analyzes some undisclosed representative subsample to ensure confidentiality.<sup>77</sup> In particular, we compare the mental health of lawyers to the mental health of medical professionals—doctors, dentists, and veterinarians—who have similar educational and professional attainment. For the sake of brevity, we refer to this group as “doctors”). In addition, we compare lawyers to the general public—everyone surveyed by the NSDUH. For interested readers, our graphs display comprehensive data on people without a BA, people with a BA, and people with a graduate degree, in addition to doctors and lawyers. Among other things, we find that 1 in 10 lawyers experience severe psychological distress, and 4 in 10 lawyers experience moderate or severe psychological distress. These rates are significantly higher than the corresponding rates for people with a BA, people with a graduate degree, and doctors.

The NSDUH is a nationally representative survey with a weighted response rate typically about 65%,<sup>78</sup> collected annually through face-to-face household interviews by the Substance Abuse and Mental Health Services Administration (SAMHSA).<sup>79</sup> The sample consists of about 68,000 (46,000 adults) individuals per year and includes sample weights. NSDUH uses an audio computer-assisted self-interviewing (ACASI) administration mode.<sup>80</sup> This is comparable to other national surveys on similar topics. For instance, in later sections, we also revisit analysis from previous studies using the National Health Interview Survey (NHIS),

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frequent mental distress among legal occupations ranked fourth among all occupations, after arts, design, entertainment, sports, and media, community and social services, and personal care and service occupations); Beth Han et al., *Suicidal ideation, suicide attempt, and occupations among employed adults aged 18–64 years in the United States*, 66 *Comprehensive Psychiatry* 176 (2017). Available at doi:10.1016/j.comppsy.2016.02.001 (finding that . . . That same year, another study found that the model adjusted prevalence of suicidal ideation was 4.8% among lawyers, judges, and legal support workers, 3.5% among all currently employed adults ages 18-64, and 3.3% among health diagnosing and treatment occupations); Seth J. Prins et al., *Mental illness, drinking, and the social division and structure of labor in the United States: 2003-2015*, 62 *Am. J. Ind. Med.* 131 (2019). Available at doi: 10.1002/ajim.22935 (finding that legal occupations had the highest rate of moderate mental illness among all occupational groups). When it comes to analyzing the mental health of *lawyers*, however, these studies of occupational groups have a significant drawback: The category of “Legal Occupations” is mostly composed of non-lawyers. In one study, for example, the group “legal occupations” included 719 workers, only 327 (45%) of whom were lawyers. Larson, *supra* note \_\_, at 122 (Table 3.1).

<sup>77</sup> <https://www.samhsa.gov/data/faq/help-analysis/why-do-estimates-i-got-online-data-tool-not-match-published-estimates> explains why. “NSDUH collects highly sensitive information from individual respondents, including data on substance use and mental health concerns. To ensure that individual respondents cannot be identified from their responses, NSDUH public-use files (PUFs) have been treated with a number of disclosure-avoidance methods. Single-year estimates from the Data Analysis System (DAS) use PUFs. We use restricted-use data files (RUFs) to produce estimates for the national report. Although multi-year estimates from the DAS also use RUFs, they are based on a subset of the cases rather than the full files. Estimates generated from the PUF, multi-year RUF and single-year RUF data file may not be the same due to disclosure-avoidance methods applied in PUFs and multi-year RUF.”

<sup>78</sup> For instance, in 2012 the weighted response rates for screening was 86.1% and for interviewing 73% generating an overall response rate of 62.9%.

<sup>79</sup> <https://www.ncbi.nlm.nih.gov/books/NBK519696/>

<sup>80</sup> <https://www.ncbi.nlm.nih.gov/books/NBK390286/>

which surveys closer to 22,000 adults per year and an adult response rate just above 60%.<sup>81</sup> The use of sampling weights and relatively high response rates mean that these surveys are the best evidence available for assessing lawyer mental health in comparison to the general population and other groups.

To generate our results, we use SAMSHA's restricted online data analysis system (RDAS) for the National Survey on Drug Use and Health: 8-Year RDAS (2006 to 2013). This is a data access platform built and managed by SAMSHA that lets users access restricted-use NSDUH files within the limits of predetermined variables and cross-tabulations.<sup>82</sup> While public NSDUH data is available and would be preferable to enable additional flexibility and control, we were unable to find a public dataset with sufficiently granular measures of occupation.<sup>83</sup> The limited data access options from SAMSHA helps with built-in confidentiality restraints but restricts the questions we are able to answer. The limited use RDAS 2006—2013 was the only publicly accessible version of the NSDUH data set that included enough occupational detail for us to confidently identify a population of “lawyers.” While we are unable to download the individual survey responses (the “microdata,” something that is available in the NHIS data) due to the sensitive nature of the survey and privacy concerns, some simple cross-tabulations can still be informative and suffice for many questions of interest. We can perform simple difference in means tests for several relevant comparisons (although we are limited in this ability to comparisons between lawyers, doctors, and other graduate degree holders). The RDA allows for three-way cross tabulations as well as restrictions to certain preset age ranges or by gender. Future scholars in this area should consider applying for Federal Statistical Research Data Center approval to look at the microdata of this survey.

We use the SAMSHA RDA system to generate several groups across differing education levels for adults over 25.<sup>84</sup> In particular, we construct mutually exclusive groups of respondents, those who have: (1) not completed college; (2) completed college; (3) have a graduate degree and their primary job is coded within occupation 11—“Lawyers, Judges & Legal Support Workers” (i.e., “lawyers”), (4) have a graduate degree and their primary job is coded within occupation 16—“Health Diagnosing & Treating Practitioners” (i.e., “doctors”<sup>85</sup>), and (5) who have a graduate degree but do not work as a “lawyer” or “doctor.”<sup>86</sup>

SAMSHA defines serious mental illness as someone who currently, or at any time in the past year, had a diagnosable mental, behavioral, or emotional disorder (excluding developmental and substance use disorders) of sufficient duration to meet diagnostic criteria specified within Diagnostic and Statistical

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<sup>81</sup>LN2021.

<https://www.icpsr.umich.edu/web/NACDA/studies/36146#:~:text=The%20total%20household%20response%20rate,adult%20component%20was%2061.2%20percent>.

<sup>82</sup> All of our results can be recreated at the following page: [https://rdas.samhsa.gov/#/survey/NSDUH-2006-2013-RD08YR/crosstab/?filter=EDUC%3D17%26IREduc%3D17&results\\_received=true&row=SPDYAJ\\_B&run\\_chisq=false&weight=DASWT\\_3](https://rdas.samhsa.gov/#/survey/NSDUH-2006-2013-RD08YR/crosstab/?filter=EDUC%3D17%26IREduc%3D17&results_received=true&row=SPDYAJ_B&run_chisq=false&weight=DASWT_3). In practice, this app limits us to three-way cross-tabulations (e.g. age group x education level x employment status is observable, but adding a fourth variable, say depression, would not be).

<sup>83</sup> <https://www.samhsa.gov/data/data-we-collect/nsduh-national-survey-drug-use-and-health>. This difficulty in obtaining granular occupation information to identify lawyers is also present in other national surveys, like The Behavioral Risk Factor Surveillance System (BRFSS). We also considered using The National Health and Nutrition Examination Survey (NHANES). Available at <https://www.cdc.gov/nchs/nhanes/Default.aspx>, but after some review believe the sample to be too small for the questions of interest.

<sup>84</sup> Data is available for people over the age of 18 for many of our outcomes. We restrict to people over 25 in order to make our samples as comparable as possible—there are few lawyers under the age of 25 in the survey.

<sup>85</sup> Other occupations that will fall within this category will include dentists and veterinarians, see [https://www.bls.gov/oes/current/oes\\_stru.htm#29-0000](https://www.bls.gov/oes/current/oes_stru.htm#29-0000)

<sup>86</sup> Unfortunately, at the time this article was written, the web-interface would not allow us to also control for employment status along with defining each of these groups, so this analysis is done on full populations, not just those working.

Manual-Fourth Edition (DSM-IV) that has resulted in serious functional impairment, which substantially interferes with or limits one or more major life activities.<sup>87</sup>

The longest-running measure of mental illness available in this version of the NSDUH is the Kessler 6 screening scale (K6). This score is generated based on answers to six questions, and the responses across these questions are then indexed and summed.<sup>88</sup> The K6 index was originally developed to evaluate the 90<sup>th</sup> to 99<sup>th</sup> percentile of mental distress.<sup>89</sup> Using the K6, the best measure of serious mental illness is serious psychological distress, which does not necessarily correspond to SAMSHA's definition of serious mental illness above. While more recent versions of the NSDUH have modernized their mental health measures, these measures were not adopted until 2009. Modernized measures within the NSDUH are explored in Part IV.

### *A. Serious Psychological Distress*

SAMSHA's measure of serious psychological distress (SPD) is based on the K6 scale, with  $K6 \geq 13$  defined as SPD. In this survey, the K6 measure is taken as the maximum monthly K6 measure over the trailing year—that is, the K6 score for the respondents' most distressed month over the past year.

We first look at the rate of SPD over the past year and compare lawyers to other education-occupation groups.<sup>90</sup> Figure 1 shows the share of a given group experiencing SPD over the past year with a bar. The solid line through each bar indicates a 95% confidence interval for each group-mean estimate. We find that about **one out of every ten lawyers** experienced severe psychological distress over the past year. This is similar to the rate among the general public but significantly and meaningfully higher than the rates among people with a BA and people with a graduate degree, and almost double the rate among doctors.

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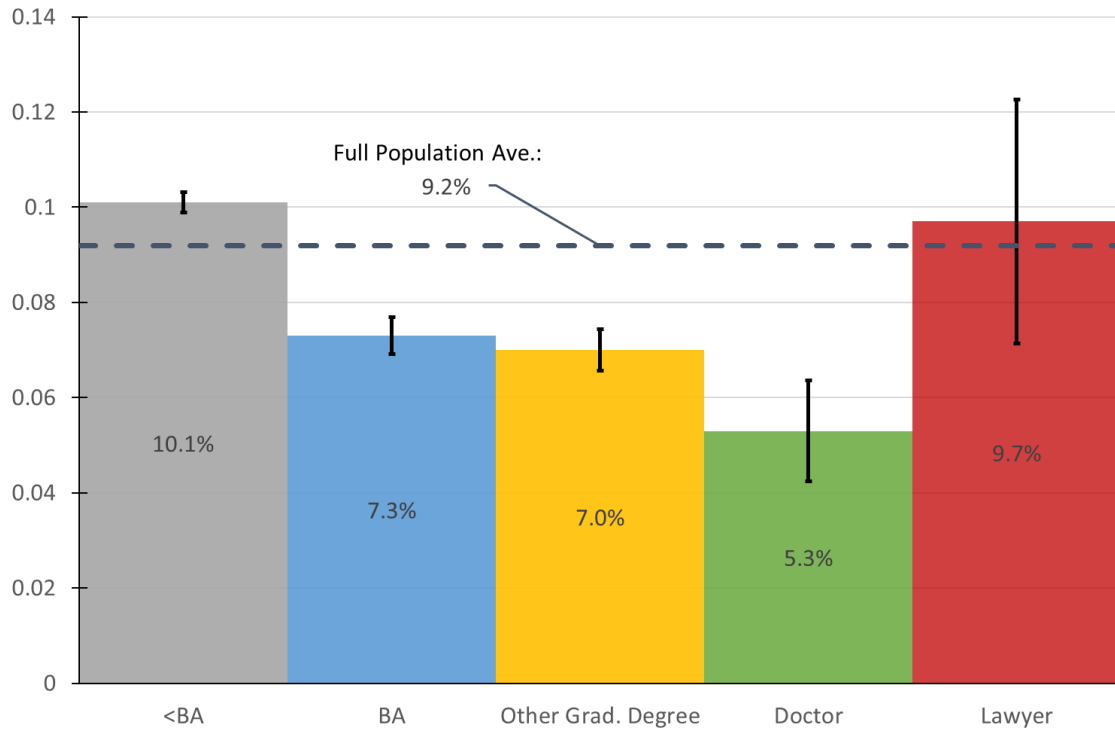
<sup>87</sup> Public Law No. 102-321, the Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act of 1992, established a block grant for States within the United States to fund community mental health services for adults with SMI. The law required States to include prevalence estimates in their annual applications for block grant funds. This legislation also required SAMHSA to develop an operational definition of SMI. [https://www.samhsa.gov/data/sites/default/files/2k12MH\\_Findings/2k12MH\\_Findings/NSDUHmhfr2012.htm#sec2-2](https://www.samhsa.gov/data/sites/default/files/2k12MH_Findings/2k12MH_Findings/NSDUHmhfr2012.htm#sec2-2)

<sup>88</sup> [2012 Tables: Glossary, SAMHSA, CBHSQ](#) “The Kessler-6 (K6) scale consists of six questions that gather information on how frequently adult respondents experienced symptoms of psychological distress during the past month or the one month in the past year when they were at their worst emotionally. These questions ask about the frequency of feeling (1) nervous, (2) hopeless, (3) restless or fidgety, (4) sad or depressed, (5) that everything was an effort, and (6) no good or worthless. Since 2008, adult respondents have first been asked about these symptoms for the past 30 days. Adults are then asked if they had a period in the past 12 months when they felt more depressed, anxious, or emotionally stressed than they felt during the past 30 days. If so, they are asked the K6 questions for the one month in the past 12 months when they felt the worst.”

<sup>89</sup> See Ronald C. Kessler et al., Screening for Serious Mental Illness in the General Population, 60 *Archives Gen. Psychiatry* 184 (2003); Ronald C. Kessler et al., Short Screening Scales to Monitor Population Prevalences and Trends in Non-Specific Psychological Distress, 32 *Psychol. Med.* 959 (2002).

<sup>90</sup> Since 2004, the estimate produced using the K6 was renamed "SPD." Starting in 2008, a new measure of SMI was produced that used a statistical model to predict mental illness based on a respondent's answers to the NSDUH K6 and World Health Organization Disability Assessment Schedule (WHODAS) questions.

Figure 1: NSDUH 2006–2013 Severe Psychological Distress – Past Year<sup>91</sup>



Source: NSDUH: 8-Year Restricted-use Data (2006–2013) via the SAMSHA DAS. Notes: 95% confidence intervals shown. Population 25+.

*B. Moderate or Severe Psychological Distress*

Following Prochaska et al., we set the cutoff for moderate or severe psychological distress (MPD+) to K6 greater than or equal to 5 in the NSDUH data.<sup>92</sup> Researchers have found that a K6 score above this cutoff is the optimal point for counting people who “identified themselves as experiencing mental distress at a moderate level that impacted functioning across a number of impairment domains (work, household, social, family/friends, disability) and was associated with increased utilization of mental health treatment.”<sup>93</sup> Using this measure, **four out of every ten lawyers** experienced moderate or severe psychological distress within the past year. This is significantly higher than the rates among the general public, people with a BA, and people with a graduate degree, and 26% higher than the rate among doctors.<sup>94</sup>

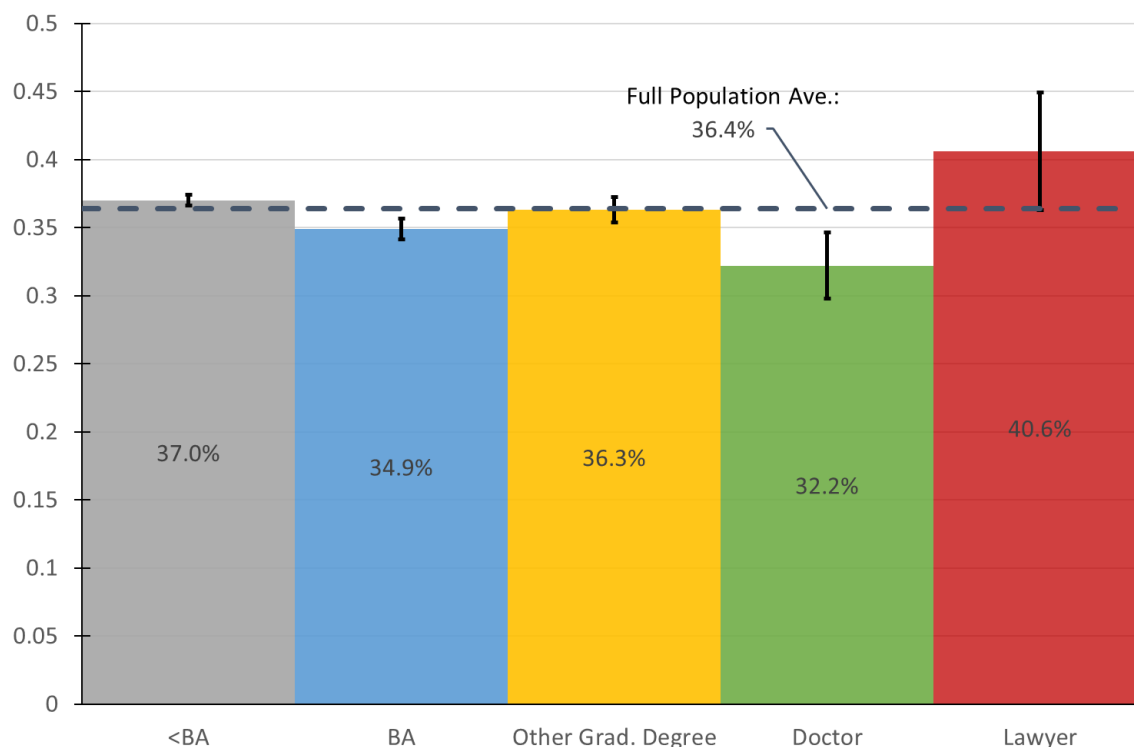
<sup>91</sup> P-value for test that lawyers and other graduate degrees are equal (p=.057); given the nature of the RDA interface, we are unable to explicitly test equality between lawyers and BA (which will be significant at the 5% level) or less than BA. P-value for test that lawyers and doctors are equal (p=.002)

<sup>92</sup> [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3370145/#:~:text=The%20K6%20asked%20respondents%20to,effort%20\(Kessler%20et%20al.%2C](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3370145/#:~:text=The%20K6%20asked%20respondents%20to,effort%20(Kessler%20et%20al.%2C)

<sup>93</sup> Id.

<sup>94</sup> Results are qualitatively similar to other, less formally validated, cutoffs that have been tried in the literature, including K6 greater than or equal to 7. We show these results in the appendix.

Figure 2: NSDUH 2006—2013 MPD+ past year<sup>95</sup>



Source: NSDUH: 8-Year Restricted-use Data (2006—2013) via the SAMSHA DAS. Notes: 95% confidence intervals shown. Population 25+.

### C. Understanding the K6 Scale

One difficulty with the K6 scale and many other survey measures of mental distress is how to validate the measure across differing populations. One assumption researchers are often forced to make in this area is that the questions are answered in a similar manner across comparison groups. For example, if lawyers reading questions more closely, they may interpret them differently. It is possible that a K6 score of 6 for lawyers is less predictive of underlying mental illness than a 6 would be for doctors. The K6 scale and other measures of mental illness or distress are typically validated on a sample of the full full population. Future research interested in resolving this question could attempt an occupation specific validation of these indices.

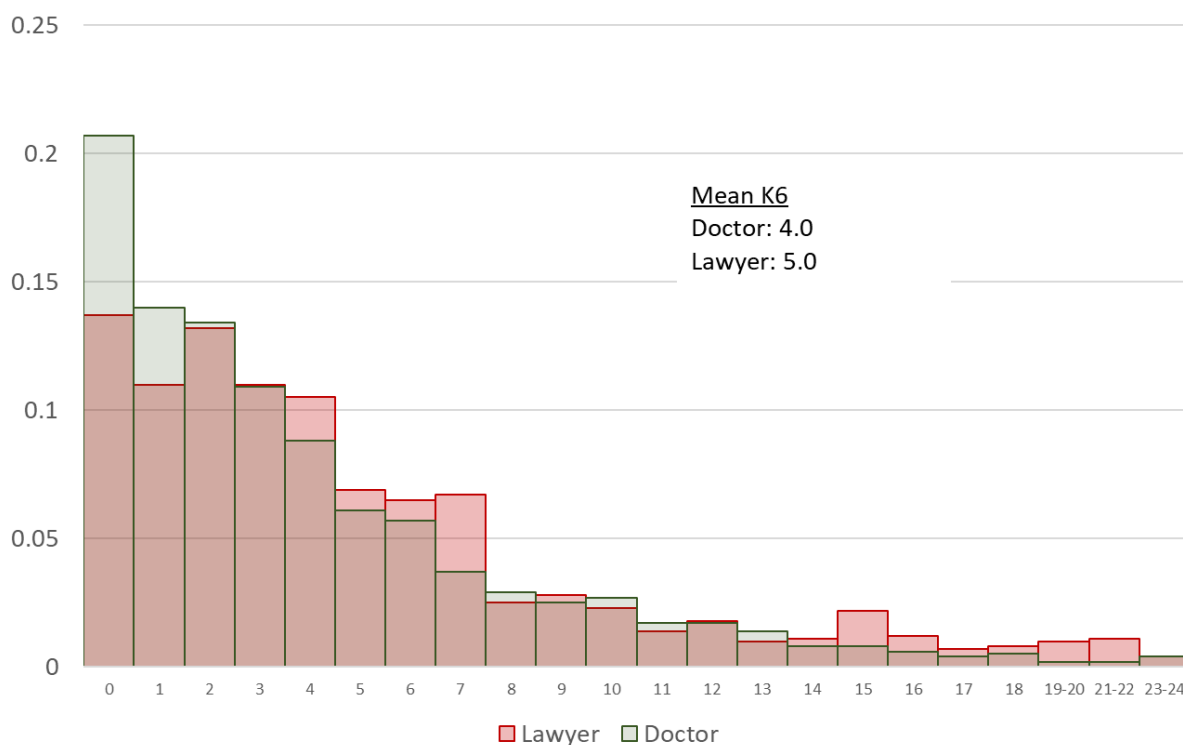
We first show the full distribution of K6 scores available in the NSDUH. The distribution of K6 scores is shifted to the right for lawyers relative to doctors.<sup>96</sup> The mean K6 value for lawyers is 5 (median of 4), which is one point higher than that of doctors (mean of 4, median of 3), and a half of a percentage point higher than that of the full population (mean of 4.5, mean of 3). In particular, fewer lawyers appear to have K6 scores below 3, while more appear to have K6 scores between 4 and 7 or between 14 and 24. Results

<sup>95</sup> P-value \_\_\_\_\_

<sup>96</sup> We group K6 scores above 18 into three groups (19-20; 21-22; 23-24), when taking the mean we assign the midpoint value for these two point buckets. The NSDUH RDA system will suppress results that have too few observations, and there are very few doctors with a K6 score above 18. One remaining concern is how the NSDUH assign non-response in these data. The documentation indicates that deliberate refusal to the K6 index questions will be assigned 0. This is also how the NSDUH calculates these indices in the official governmental publications. We are unable to evaluate true 0's from missings. This will bias the NSDUH towards finding lower rates of mental distress—however, K6 rates in the NSDUH are typically well aligned to other surveys, suggesting this potential bias is quite small.

comparing the full population distribution as well as a cumulative density function are shown in the appendix.

Figure 3: NSDUH 2006—2013 past-year K6 scores



*D. Receiving Mental Health Treatment*

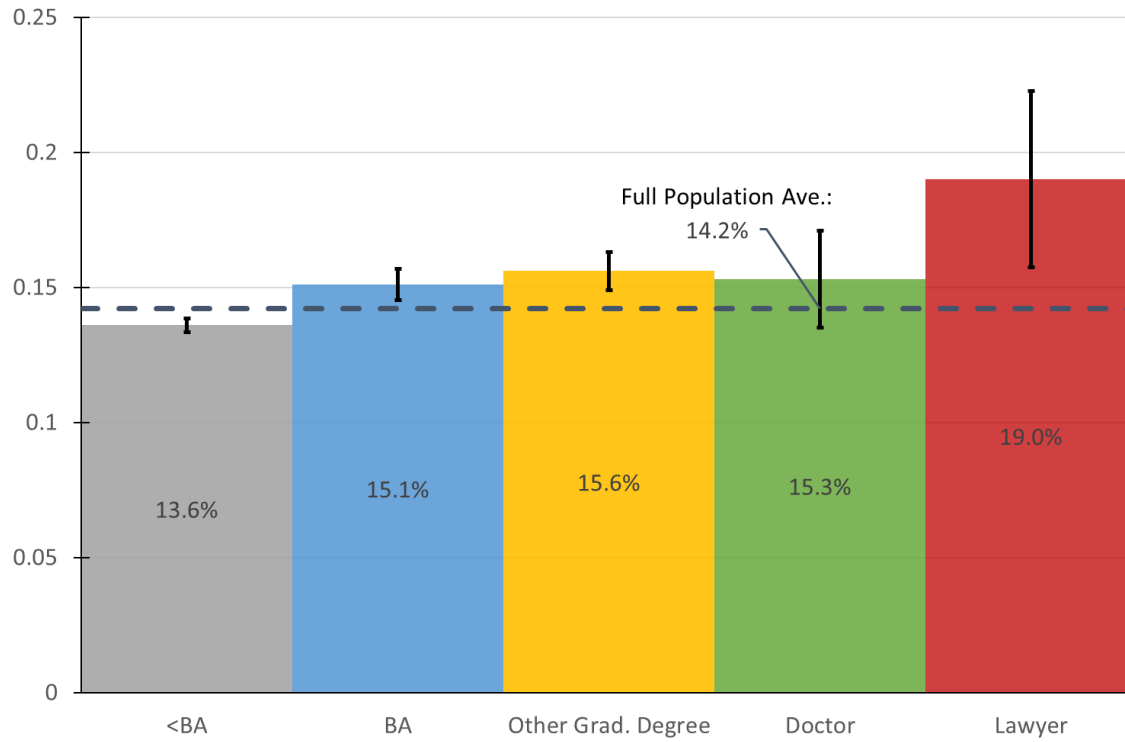
In the literature on lawyer well-being, researchers and regulators have raised concerns that lawyers are unwilling to seek mental health treatment.<sup>97</sup> Our data shows that 19% of lawyers have received mental health treatment in the past year. This is 34% higher than the rate among the general public, and significantly higher than the rates among all other groups.

Importantly, this does not appear to be only a function of the availability and costs of mental health care. The rates of those who report needing mental health treatment but not receiving it are similar—i.e., not significantly different—across all educational groups. Taken together, these findings suggest that lawyers may have been *more* willing than other groups to seek mental health treatment.

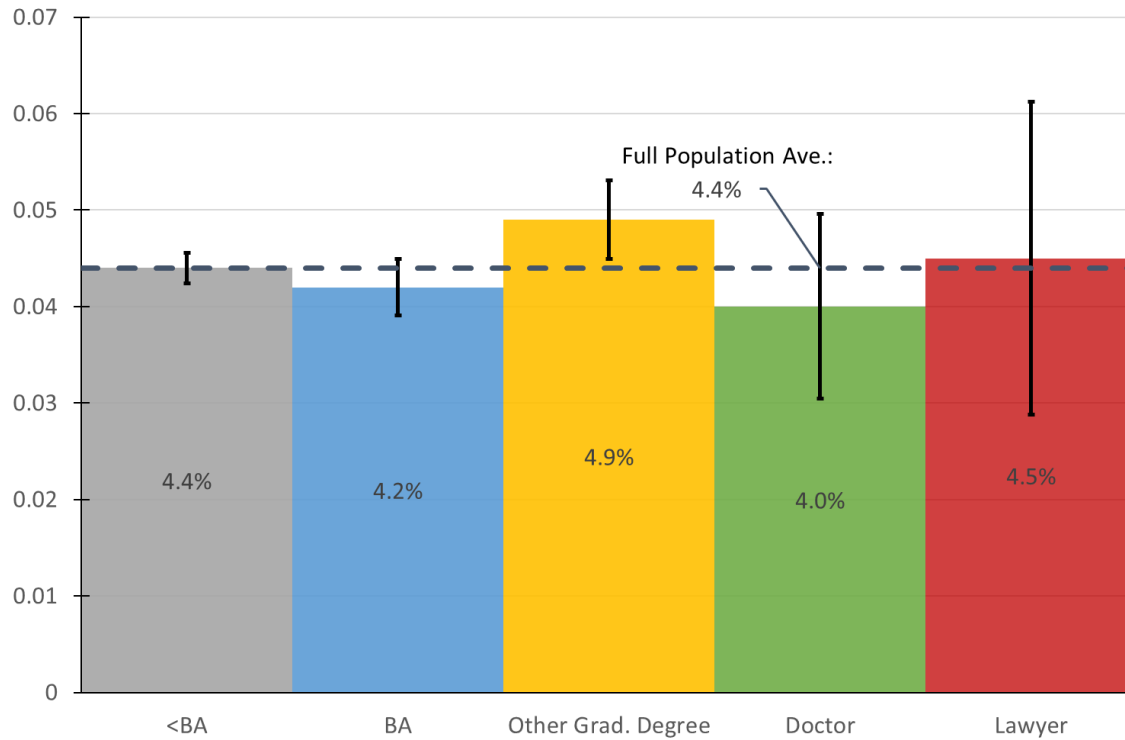
<sup>97</sup> See, e.g., ABA, *supra* note \_\_, at 13 (“stigma prevents lawyers from seeking help”); see also Krill et al. (2016), *supra* note \_\_, at 50 (identifying “not wanting others to find out they needed help” and “concerns regarding privacy or confidentiality” as two “most common barriers” to lawyers receiving treatment for alcohol or drug use).

Figure 4: NSDUH 2006—2013 Mental health treatment and treatment needs in the past year

**Panel a: Received mental health treatment**



**Panel B: Needed but didn't get mental health treatment**



Source: NSDUH: 8-Year Restricted-use Data (2006—2013) via the SAMSHA DAS. Notes: 95% confidence intervals shown. Population 25+.



*E. Alcohol Abuse and Dependence and Driving While Intoxicated*

Previous surveys have produced a wide range of estimates for the prevalence of alcohol abuse among lawyers, from 6% to 56%.<sup>98</sup> While there are several measures of this phenomenon in the NSDUH, we highlight two here: alcohol abuse or dependence and driving while intoxicated.<sup>99</sup>

Alcohol abuse and dependence are defined by criteria listed in the DSM-IV.<sup>100</sup> Our data show that 9.3% of lawyers experienced alcohol abuse or dependence in the past year.<sup>101</sup> This is 55% higher than the rate among the general public (6.0%), more than double the rate among medical professionals (4.1%), and significantly higher than the rates among all other groups.

A staggering **one out of every four** lawyers (24.7%) admitted that they had driven while intoxicated in the past year. This is more than double the rate among the general public (11.5%) and significantly higher than the rates among all other groups.

While we do not have causal evidence linking alcohol dependence and driving while intoxicated, there is a strong ( $r = .69$ ) correlation across education groups between the two measures. Among all groups, 60.3% of people with alcohol abuse and dependence reported driving while intoxicated. By contrast, only 8.4% of people without alcohol abuse and dependence reported driving while intoxicated.

We also consider illicit substance abuse and use. For the sake of brevity, we do not generate figures for these findings. However, we find 0.9% of lawyers abusing illicit drugs, a lower rate than those without a BA, similar to those with a BA or another graduate degree, and above the rate for doctors.<sup>102</sup> Lawyers used marijuana within the past year at similar rates as other groups (7.7%) but above the rate for doctors (3.7%). While imprecisely measured, 3.8% of lawyers misused prescription pain relievers in the

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<sup>98</sup> See, e.g., Benjamin et al., *supra* note \_\_ (18%); Howerton, *supra* note \_\_ (6%); Krill et al., *supra* note \_\_ (20.6%); Anker & Krill, *supra* note \_\_ (29.8%); Sirkin et al., *supra* note \_\_ (42%); NJ State Bar Association, *supra* note \_\_ (56%).

<sup>99</sup> Driving under the influence is based off the question “During the past 12 months, have you driven a vehicle while you were under the influence of alcohol?” This question is thus not necessarily measuring the criminal offense of driving while over the blood alcohol limit.

<sup>100</sup> A respondent was defined as having alcohol abuse if they reported a positive response to one or more of the following four abuse criteria and was determined not to be dependent upon the substance of interest: 1) Respondent reported having serious problems due to substance use at home, work or school; 2) Respondent reported using substance regularly and then did something where substance use might have put them in physical danger; 3) Respondent reported substance use causing actions that repeatedly got them in trouble with the law; 4) Respondent reported having problems caused by substance use with family or friends and continued to use substance even though it was thought to be causing problems with family and friends.

A respondent was defined as having alcohol dependence if they reported a positive response to three or more of the following criteria: 1) Spent a great deal of time over a period of a month getting, using, or getting over the effects of the substance; 2) Unable to keep set limits on substance use or used more often than intended; 3) Needed to use substance more than before to get desired effects or noticed that using the same amount had less effect than before; 4) Unable to cut down or stop using the substance every time he or she tried or wanted to; 5)

Continued to use substance even though it was causing problems with emotions, nerves, mental health, or physical problems; 6) Reduced or gave up participation in important activities due to substance use; 7) If they had experienced substance specific withdrawal symptoms at one time that lasted for longer than a day after they cut back or stopped using.

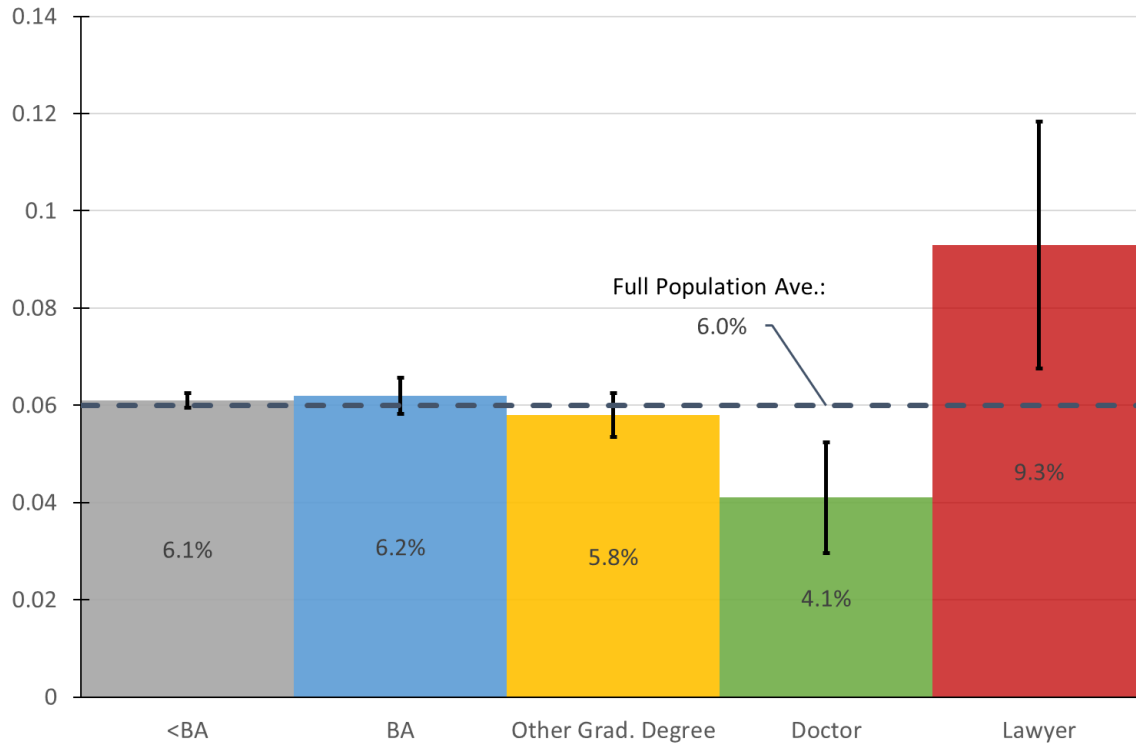
<sup>101</sup> A similar analysis of NSDUH data from 2002-2004 found that 9.7% of lawyers experienced alcohol abuse or dependence. Sharon L. Larson et al., *Worker Substance Use and Workplace Policies and Programs* (2007) (DHHS Publication No. SMA 07-4273, Analytic Series A-29). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

<sup>102</sup> We also consider illicit drug abuse, but do not graphically present the results here. This rate was 2% for those with less than a BA, 1.1% for those with a BA, 0.8% for other graduate degree holders, 0.5% for doctors, and 0.9% for lawyers. Marijuana use within the past year for lawyers (7.7%) was similar to the population average (7.8%), although significantly above doctors (3.7%).

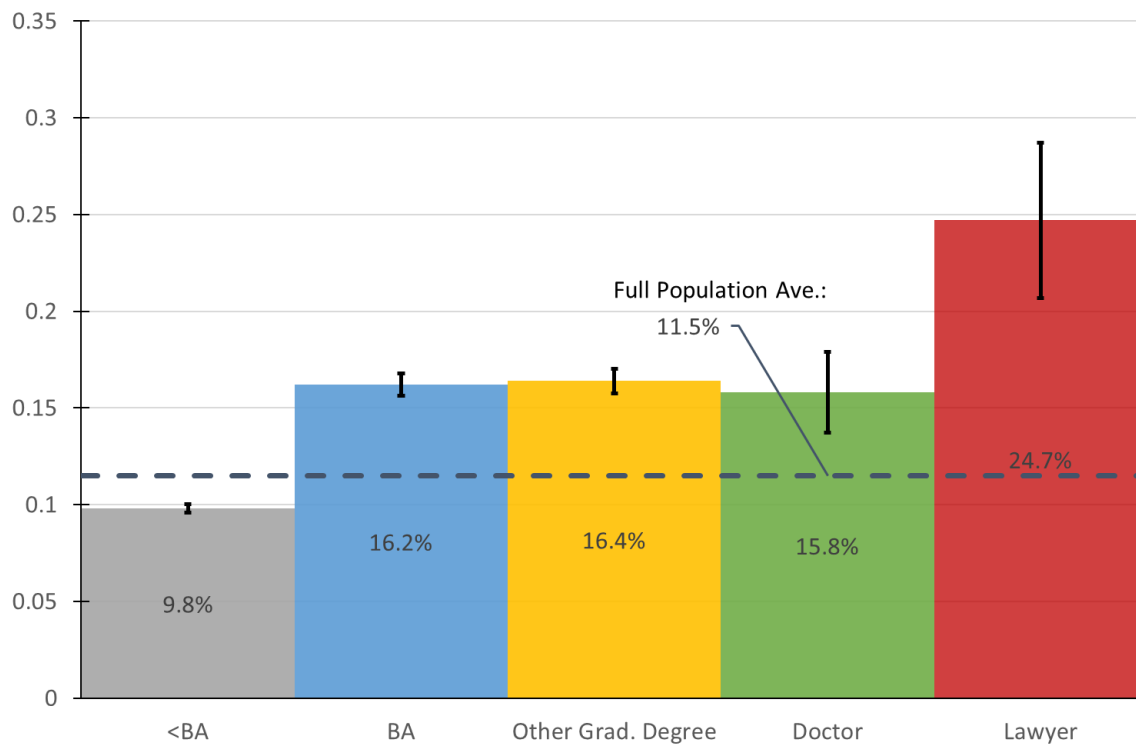
last year, a rate that is higher than doctors (1.8%) and other graduate degree holders (2.3%) but perhaps slightly above the rate for the average population (3.3%).

Figure 5: NSDUH 2006–2013 Alcohol

**Panel a: Alcohol abuse or dependence**



**Panel b: Drove while intoxicated**



Source: NSDUH: 8-Year Restricted-use Data (2006—2013) via the SAMSHA DAS. Notes: 95% confidence intervals shown. Population 25+.

### *F. Age and Gender*

Splitting the sample into demographic subgroups decreases our sample size, meaning we have less confidence in the precision of these findings and many of the differences we discuss are not statistically significant. Nevertheless, we think working to identify subgroup patterns is potentially informative.

The NSDUH data show an age gradient in the prevalence of psychological distress. As age increases, the rates of MPD+ and SPD both fall. Lawyers aged 26-34 (49.8%) are almost two times more likely to experience MPD+ than lawyers over age 50 (28.6%) and three times more likely to experience SPD (15.3%; 4.8%). Remarkably, half of all lawyers aged 26-34 report MPD—a rate 23% higher than the average lawyer and 37% higher than the general public.

Like psychological distress, alcohol abuse and dependence declines over the age gradient. While not precisely estimated, lawyers aged 26-34 (13.8%) are 89% more likely to experience alcohol abuse or dependence than lawyers aged 35-50 (7.3%) and 59% more likely than lawyers over age 50 (8.7%). Interestingly, alcohol abuse and dependence rates are similar for all lawyers over age 35, even though psychological distress declines significantly after age 50. The patterns based on gender are different. Female lawyers (49.0%) are 34% more likely to experience MPD+ than male lawyers (36.5%) and almost twice as likely to experience SPD (14.1%; 7.3%). Despite having lower rates of psychological distress, male lawyers (10.9%) are 49% more likely to experience alcohol abuse or dependence than female lawyers (7.3%), and 21% more likely to report driving while intoxicated (26.3%; 21.8%).<sup>103</sup>

*Table 1: NSDUH 2006—2013 Psychological Distress and Alcohol Use By Age and Gender*

	<u>Age</u>			<u>Gender</u> <sup>104</sup>	
	26-34	35-50	50+	Male	Female
	<u>Severe Psychological Distress – Past Year</u>				
Prevalence	0.153	0.117	0.048	0.073	0.141
Standard Error	(0.027)	(0.022)	(0.020)	(0.016)	(0.022)
	<u>Moderate Psychological Distress or Greater – Past Year</u>				
Prevalence	0.498	0.484	0.286	0.365	0.490
Standard Error	(0.040)	(0.030)	(0.041)	(0.027)	(0.033)
	<u>Alcohol abuse or dependence</u>				
Prevalence	0.138	0.073	0.087	0.109	0.073
Standard Error	(0.030)	(0.015)	(0.023)	(0.018)	(0.016)
	<u>Drove while intoxicated</u>				
Prevalence	0.283	0.233	0.238	0.263	0.218
Standard Error	(0.034)	(0.026)	(0.035)	(0.027)	(0.028)
Weighted Count	225,000	353,000	405,000	636,000	371,000

<sup>103</sup> Based on eight years of NHIS data, LN2021 found that young lawyers (under 40) did not experience moderate or serious psychological distress at higher rates than older lawyers. In addition, they found that female lawyers do not experience moderate or serious psychological distress at higher rates than male lawyers. It thus seems that the NSDUH shows somewhat different demographic patterns than the NHIS.

<sup>104</sup> The share of female lawyers in our NSDUH sample is thus 36.8% which is comfortably between the share reported by the ABA (35%) and slightly below the share in the NHIS (39%).

#### IV. MODERNIZED MENTAL HEALTH MEASURES: EVIDENCE FROM THE NATIONAL SURVEY ON DRUG USE AND HEALTH 4-YEAR 2010—2013 RDAS

While the 8-year NSDUH data covers more years (and thus, more survey respondents), the 4-year data from 2010 to 2013 includes additional, updated measures of mental health that are unavailable in the longer pooled data. The results in this subsection will thus have less statistical power to identify differences between groups or precise group means, which will be indicated by larger confidence intervals in our graphs. However, we can use these additional measures of mental illness to cross-check the validity of our results from the 8-years of data and to shed additional light on the mental health of lawyers.

First, we can see how lawyers and other groups have responded to a new question about suicidal ideation added to the NSDUH during this period. Second, we can compare how lawyers look under two versions of the K6 scale: psychological distress in the past month and psychological distress in the worst month of the past year. Second, we can consider more sophisticated measurements than the K6 scale, which SAMSHA created and clinically validated to ensure correlations between survey measures and mental health diagnoses.

##### *A. Suicidal Ideation*

Starting in 2009, NSDUH began asking respondents whether they had seriously thought about suicide in the past year. While suicidal ideation is not a mental illness, it is universally regarded as an important indicator of mental health and a common symptom of mental illness.<sup>105</sup> In this data, 4.6% of lawyers seriously thought about suicide in the past year. Although this test is not particularly well-powered to pick up differences across groups, the rate of suicidal ideation among lawyers was higher than the rates among people with an MA or a Ph.D. (2.6%) and medical professionals (1.7%). It is also nominally higher than the rates among people without a BA (4.3%), people with a BA (2.9%), and the general public (3.3%), but these differences are not statistically significant.

While our simple group means do not account for other potential differences across groups, our findings align well with research that takes a more robust modeling approach using the NSDUH microdata and a rich set of socio-economic controls. This previous work “identified adults in specific occupations at higher risk for suicidal ideation, particularly media and communication workers; lawyers, judges, and legal support workers.”<sup>106</sup> In this study, the model-adjusted prevalence of suicidal ideation was 4.8% among lawyers, judges, and legal support workers, 3.5% among all currently employed adults ages 18-64, and 3.3% among health diagnosing and treatment occupations.<sup>107</sup> This study’s results track closely with the results of our study below.

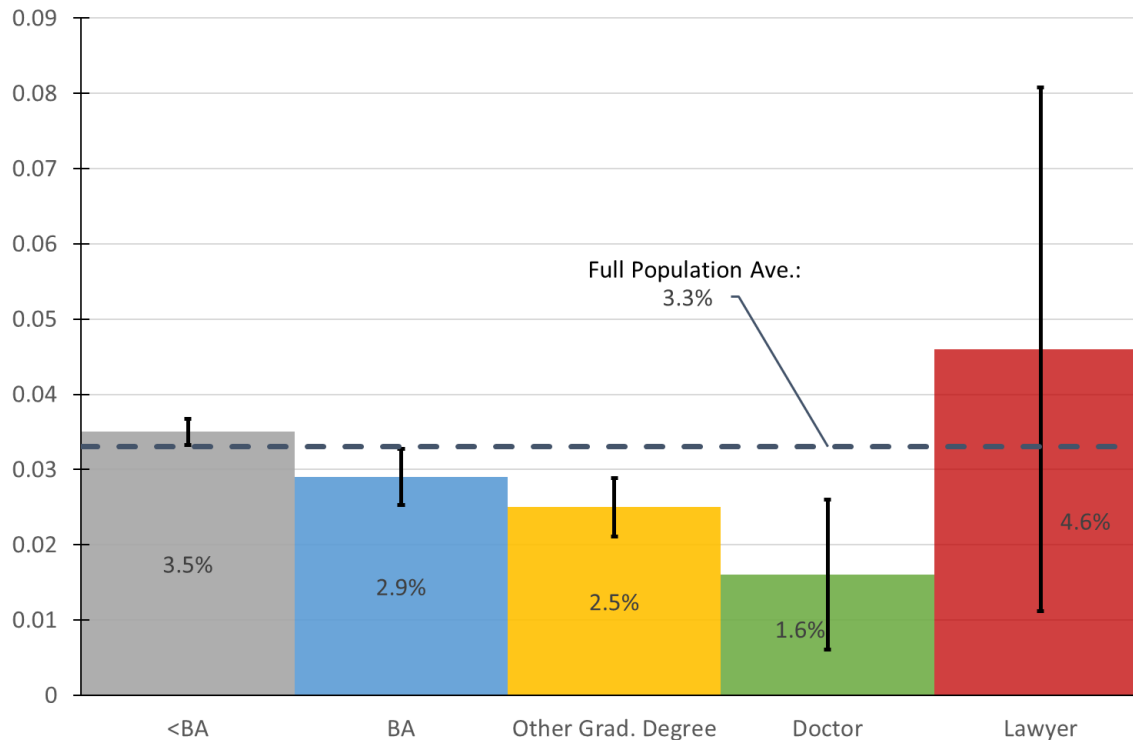
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<sup>105</sup> CITE

<sup>106</sup> Beth Han et al., Suicidal ideation, suicide attempt, and occupations among employed adults aged 18–64 years in the United States, 66 *Comprehensive Psychiatry* 176, 182 (2017). Available at doi:10.1016/j.comppsy.2016.02.001.

<sup>107</sup> *Id.* at 176, 181. These rates are lower than the rates found in a recent study of legal professionals, but this study had a response rate of 5%, so it was subject to nonresponse bias. In any event, this study also found that legal professionals experienced a higher rate of suicidal ideation than the general public. See Thiese et al., *supra* note \_\_, at 383 (finding that 11.9% of legal professionals reported thoughts that they would be “better off dead” or thoughts of hurting themselves in some way” at least “several days” in the past two weeks, compared with 2.4% of a sample of 2,112 working adults between 21 and 80).

Figure 6: Suicidal Ideation



### B. Comparing MPD+ and SPD in the NSDUH and the NHIS

In the 2010—2013 NSDUH, we can assess two versions of the K6 scale: moderate ( $K6 \geq 5$ ) and serious ( $K6 \geq 13$ ) psychological distress in the past month and in the worst month of the past year. This is important for several reasons. The first is that it provides another measure of lawyer mental illness, by which we can cross-check the validity of our results from the 2006—2013 NSDUH. Researchers have relied on both past month and past year K6 measures for assessing mental illness. We will show that while there are some differences between the two measures, the same broad patterns emerge across groups.<sup>108</sup> This serves as a useful robustness check given the challenges inherent in survey measures of mental illness.<sup>109</sup>

In addition, having both a past month as well as past year measure will also be helpful as we compare data from the NSDUH to the NHIS, the other major survey we use in our analysis.

Finally, if we see different patterns across groups based on the past month and past year measures, they may tell us something about the nature of mental illness within particular groups.<sup>110</sup> For instance, we find that lawyers have the largest decline in MPD+ ( $K6 \geq 5$ ) when moving from the past month to the past year measure. This may suggest that lawyers have more acute bouts of mental illness over time relative to other groups—having periods with and without psychological distress over the year, perhaps due to variable

<sup>108</sup> One qualitative difference is that lawyers have the highest rates of SPD under the trailing year measure and the second highest, behind those with less than a college degree, in the past month measure.

<sup>109</sup> It is worth highlighting that the most cited paper validating moderate or greater psychological distress (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3370145/>), uses the worst month in the past year measure. The rates of MPD+ and SPD in the Prochaska et al. California based study matches very closely to the overall rates in the NSDUH.

<sup>110</sup> The evidence from these differences is more speculative, as we are unaware of clinical validation for differences between the two time frames.

job stressors. Declines are smaller for other groups, suggesting that they experience more stability in psychological distress over time.<sup>111</sup>

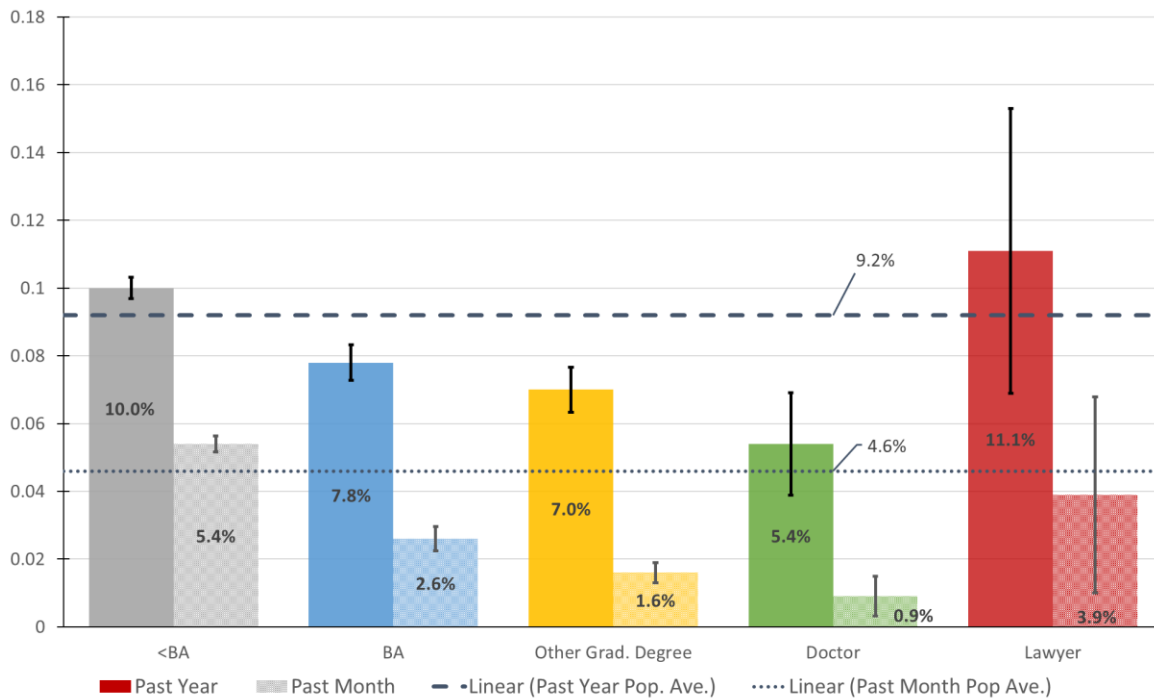
The patterns of serious psychological distress in the past year are similar between the full 2006 to 2013 sample and the abbreviated 2010 to 2013 sample. Perhaps due to the Great Recession, rates of both SPD and MPD+ increased for most groups in the 2010—2013 sample relative to the 2006—2013 sample, including lawyers. As in the larger sample, the share of lawyers reporting past year SPD is significantly higher than the average rates for other highly educated groups, like those with a college degree and those with a graduate degree. In fact, lawyers report SPD at a statistically similar rate as those who did not complete college.

When considering serious psychological distress in the past month compared to the past year, lawyers show the largest relative decline in SPD, with rates of SPD declining 7.2 percentage points from 11.1% to 3.9%. Lawyers still experience much higher rates of past-month SPD compared to most other educational groups.

When considering MPD+ in the past month compared to the past year, lawyers show the largest relative decline, with rates of moderate or severe psychological distress declining 13.3 percentage points, from 42.8% to 29.5%. In the later sample, lawyers have the highest rates of MPD+ over the past year. Using the past month measure, lawyers (29.5%) have statistically higher rates of MPD+ than doctors (22.1%), and nominally higher rates than all other groups.

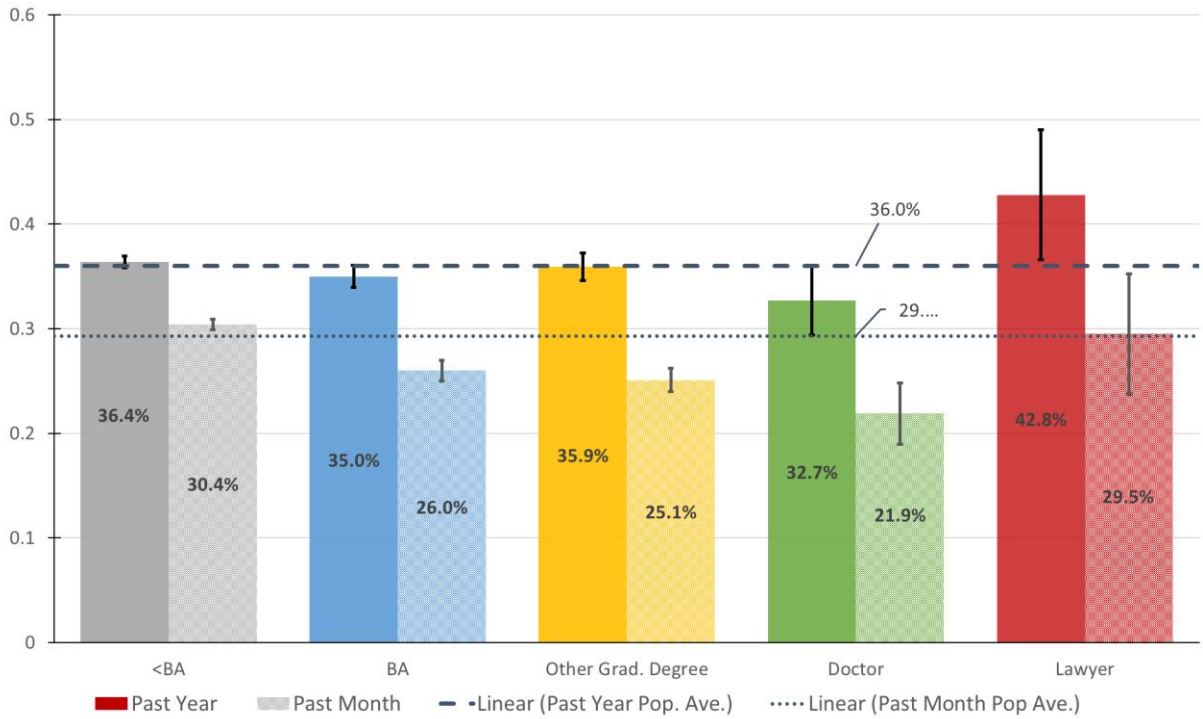
Figure 7: NSDUH 2010—2013 K6 derived mental health measures: past year and past month

**Panel a: K6 SPD**



<sup>111</sup> Another possible explanation is that different groups have different recall biases. If lawyers are more likely to remember past months as more stressful relative to other groups, a similar pattern would emerge.

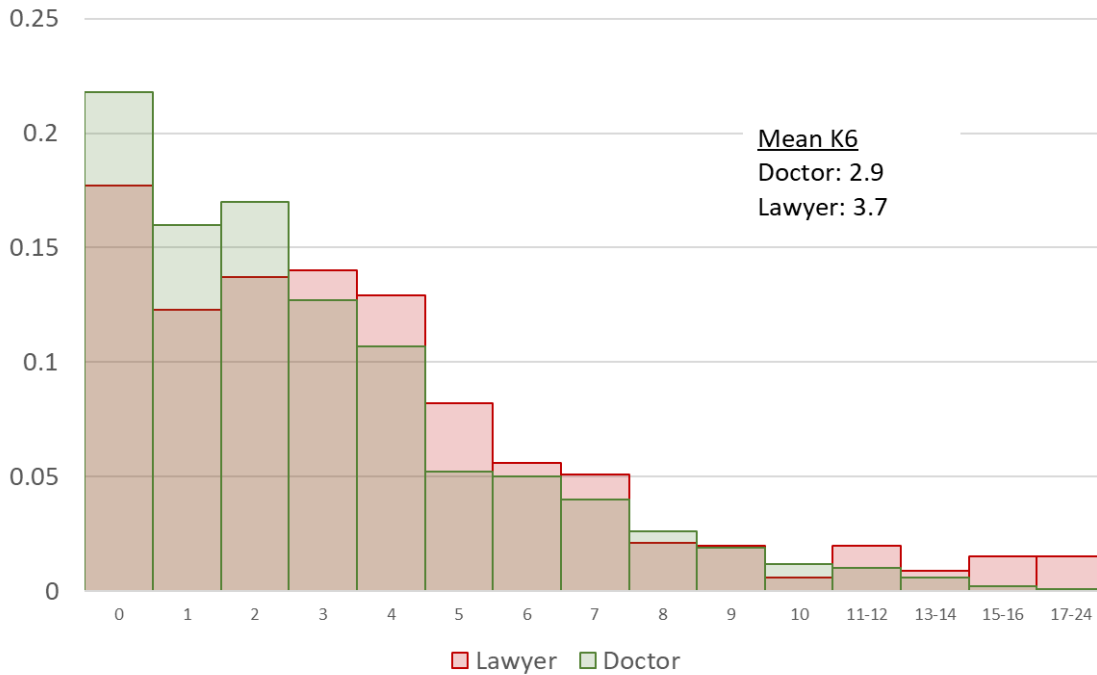
**Panel b: K6 MPD+**



Source: NSDUH: 8-Year Restricted-use Data (2010—2013) via the SAMSHA DAS. Notes: 95% confidence intervals shown. Population 25+.

As before, we show the full distribution of past-month K6 scores for doctors and lawyers. As before lawyers are significantly shifted towards higher scores than doctors.

Figure 7: NSDUH 2010—2013 past-month K6 scores



*C. The Mental Health Surveillance Study: A New Clinically Validated Measure of Mental Illness*

Starting in 2009, NSDUH also began statistically modeling probabilities of serious mental illness based on the K6 index, as well as an additional World Health Organization Disability Assessment Schedule (WHODAS).<sup>112</sup>

A subset of the NSDUH completed an additional module, known as the Mental Health Surveillance Study evaluation. It was administered by a trained clinical interviewer—a master's or doctoral-level clinician, counselor, or social worker—via paper-and-pencil interviewing over the telephone. The clinical interview was a Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Research Version, Non-Patient Edition (SCID-I/NP).<sup>113</sup> The NSDUH serious mental illness estimate is based on a gold-standard measure of disorder diagnoses using the Global Assessment of Functioning Scale (GAF), which was administered by trained clinical interviewers.<sup>114</sup>

The NSDUH then used a logistic regression model to predict serious mental illness based on WHODAS and K6 scores. Optimal cut points were chosen such that if logistically predicted probabilities were above a certain point, the respondent is classified as falling into one of four categories: (1) any mental illness; (2) mild mental illness; (3) moderate mental illness; or (4) serious mental illness.<sup>115</sup>

These clinically validated classifications indicate that lawyers experience any mental illness at higher rates than other groups. Slightly more than **one out of every five** lawyers (21.3%) have or have had any mental illness over the past year. This rate is higher than the rates for the general public (18.1%) and all other educational groups. It is about 25% higher than the rate among people with a BA or a graduate degree, and about 75% higher than the rate among doctors.

While lawyers have lower rates of moderate mental illness than all other groups, they have higher rates of mild and serious mental illness than all other groups. Some of these fine-grained measures lack statistical precision because the 4-year NSDUH has a smaller sample than the 8-year NSDUH. In spite of these

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<sup>112</sup> [Comparison of NSDUH Mental Health Data and Methods with Other Data Sources - CBHSQ Data Review - NCBI Bookshelf \(nih.gov\)](#): Respondents were asked about how much difficulty they had with any of the following activities during the 1 month when their psychological difficulties interfered most with their daily activities: (1) remembering to do things they needed to do, (2) concentrating on doing something important when other things were going on around them, (3) going out of the house and getting around on their own, (4) dealing with people whom they did not know well, (5) participating in social activities, (6) taking care of household responsibilities, (7) taking care of daily responsibilities at work or school, and (8) getting daily work done as quickly as needed. These were assessed on a 0 to 3 scale, with responses of "no difficulty," "don't know," and "refused" coded as 0; "mild difficulty" coded as 1; "moderate difficulty" coded as 2; and "severe difficulty" coded as 3. [Results from the 2009 National Survey on Drug Use and Health: Mental Health Findings \(counseling.org\)](#)

<sup>113</sup> [Results from the 2009 National Survey on Drug Use and Health: Mental Health Findings \(counseling.org\)](#)

<sup>114</sup> *Id.*

<sup>115</sup> GAF scores were categorized as follows:

- 1) Any mental illness – respondent had at least one of mental disorders, regardless of the level of functional impairment.
- 2) Low (mild) mental illness - respondent had at least one mental disorder, but this disorder resulted in no more than mild impairment (GAF scores of 60 or larger).
- 3) Moderate mental illness - respondent had at least one mental disorder, and this disorder resulted in moderate impairment (GAF of 51 to 59 inclusive) and
- 4) Serious mental illness (SMI) - respondent had at least one mental disorder, and this disorder resulted in substantial impairment in carrying out major life activities (GAF less than 51).

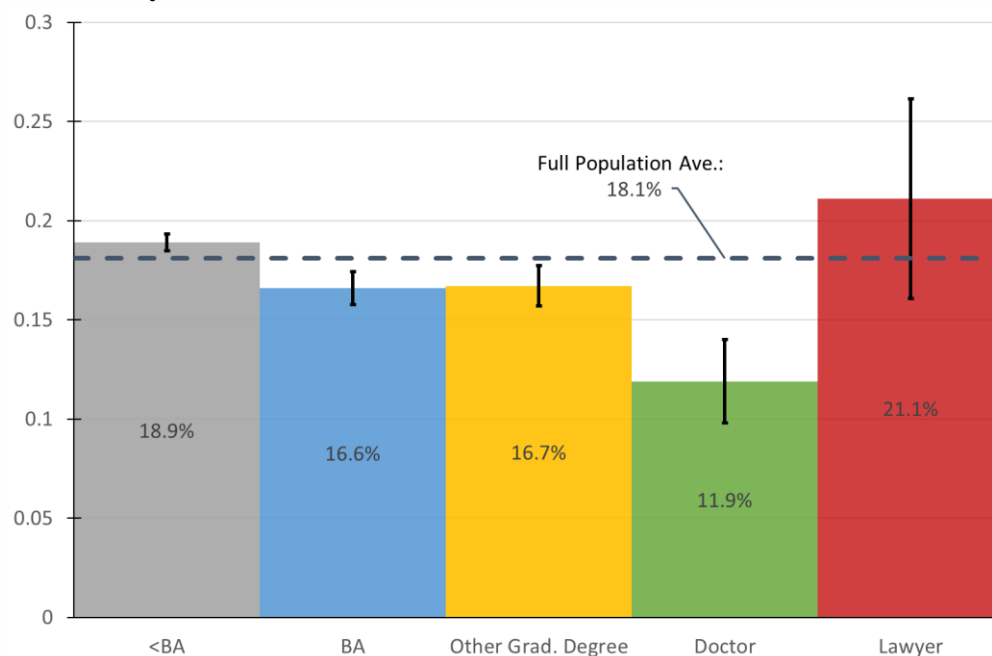
In 2009, “Respondents with an SMI-predicted probability greater than the cut point of 0.02400 for any mental illness were classified as having any mental illness. Estimates of the cumulative category for SMI or moderate mental illness were similarly obtained, except that a cut point of 0.10965 was used.” <https://www.counseling.org/docs/public-policy-resources-reports/2k9mentalhealthresults.pdf?sfvrsn=2>



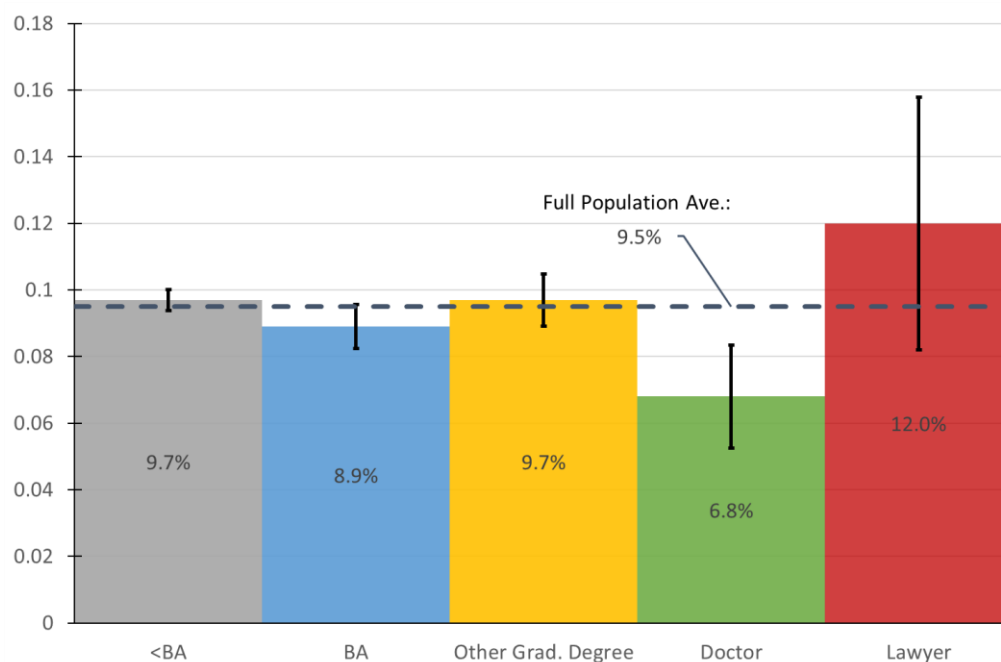
limitations, lawyers are significantly more likely to have any mental illness or a serious mental illness than both people with a graduate degree and doctors.<sup>116</sup>

Figure 8: NSDUH 2010–2013 Model-derived mental health measures

**Panel a: Any mental illness<sup>117</sup>**



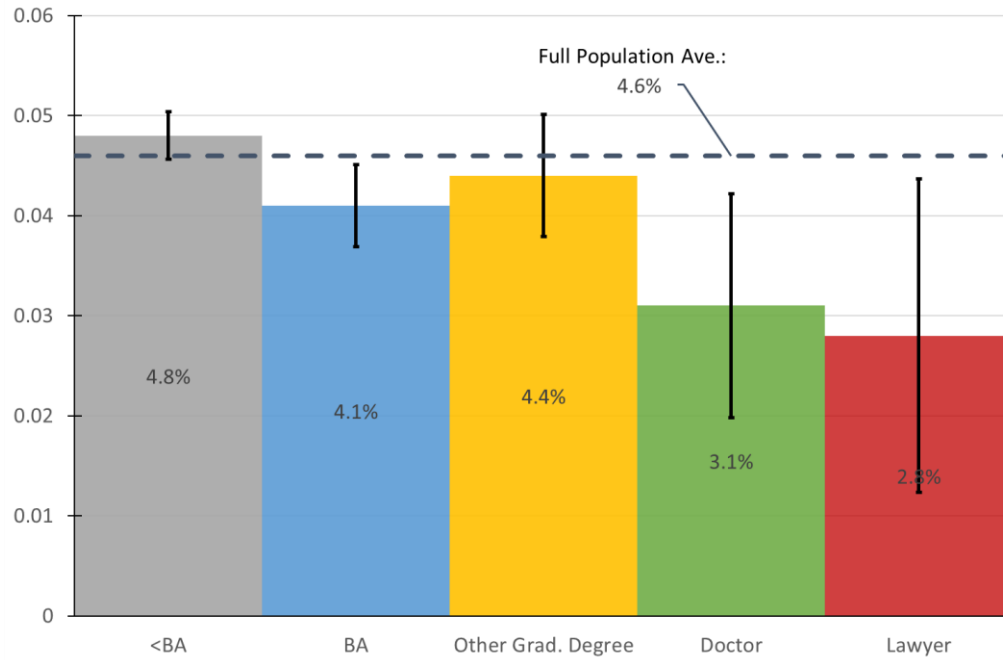
**Panel b: Mild mental illness**



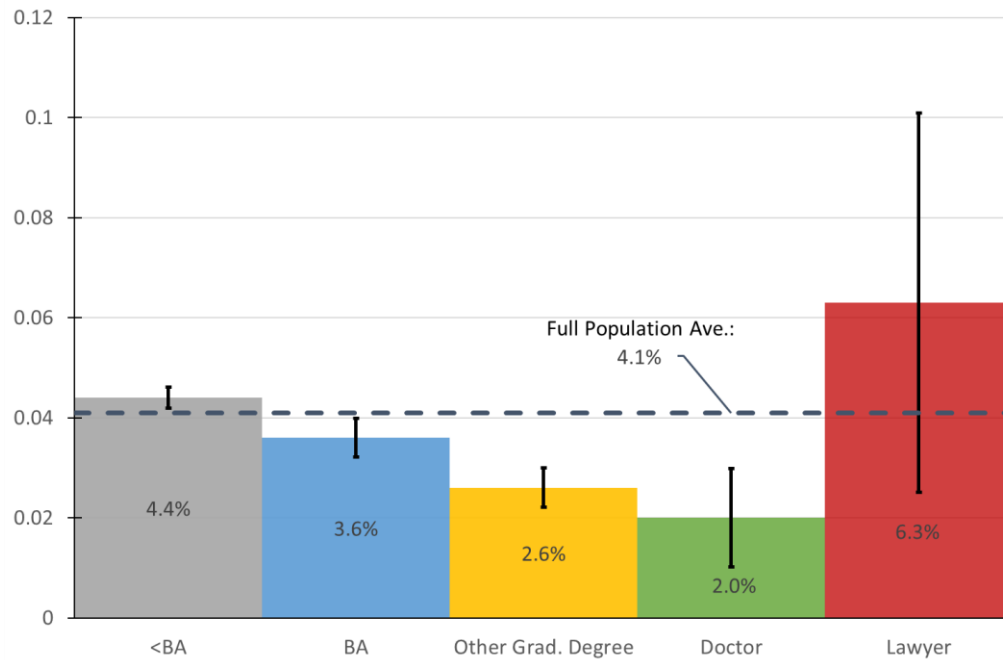
<sup>116</sup> The differences between lawyers and doctors are significant at the 5% level. The differences between lawyers and people with a BA or a graduate degree are significant at the 10% level.

<sup>117</sup> P-value of lawyers=doctors is .001. P-value of lawyers=other graduate degree holders is 0.09.

**Panel c: Moderate mental illness**



**Panel d: Serious mental illness<sup>118</sup>**



Source: NSDUH: 8-Year Restricted-use Data (2010—2013) via the SAMSHA DAS. Notes: 95% confidence intervals shown. Population 25+.

<sup>118</sup> P-value: doctor=lawyer is .039; lawyer=other grad is 0.1

### D. Age and Gender

The age distribution of mental illness based on the NSDUH 2010-2013 is somewhat different than the clear gradient we observed for psychological distress in the NSDUH 2006-2013.<sup>119</sup> Although lawyers aged 26-34 report higher rates of any, mild, and moderate mental illness than lawyers over 50, the drop-off seems to occur after age 50, rather than as a steady gradient from 26 to 50. Indeed, lawyers aged 35-50 experience any mental illness and mild mental illness more often than lawyers aged 26-34. (Note: There are too few lawyers with moderate mental illness over the age of 50 to report results from the NSDUH data.)<sup>120</sup>

As in the earlier data, however, female lawyers report higher rates than male lawyers across all levels of mental illness. These differences are most pronounced for any, moderate, and serious mental illness. In this data, female lawyers are 60% more likely to experience serious mental illness than male lawyers.

Table 2: Mental Illness by Age and Gender

	<u>Age</u>			<u>Gender</u>	
	26-34	35-50	50+	Male	Female
	<u>Any Mental Illness – Past Year</u>				
Prevalence	0.259	0.266	0.130	0.175	0.273
Standard Error	(0.048)	(0.042)	(0.046)	(0.035)	(0.038)
	<u>Mild Mental Illness – Past Year</u>				
Prevalence	0.134	0.174	0.062	0.119	0.130
Standard Error	(0.042)	(0.034)	(0.031)	(0.028)	(0.026)
	<u>Moderate Mental Illness – Past Year</u>				
Prevalence	0.051	0.035	n/a	0.006	0.063
Standard Error	(0.022)	(0.015)	n/a	(0.004)	(0.019)
	<u>Serious Mental Illness – Past Year</u>				
Prevalence	0.074	0.057	0.060	0.050	0.080
Standard Error	(0.026)	(0.029)	(0.038)	(0.025)	(0.029)
Weighted Count	228,000	348,000	370,000	597,000	376,000

To further test the validity of our findings, it is useful to examine only people in the prime of their careers. While ideally we might cut the data to end at 55 (a common definition of “prime-age” workers), or at 65 (a common retirement cutoff), our data access constrains us to examine people aged 26-50. We reproduce the same measurements and educational groups for people aged 26-50 in the appendix. Even under this restriction, the figures show similar qualitative patterns to the full population: Lawyers generally have higher relative rates of mental illness, even among people aged 26-50.

## V. REVISITING EVIDENCE FROM THE NHIS

Based on an analysis of NHIS from 2010-2017, LN2021 concludes: “Contrary to the conventional wisdom, lawyers . . . suffer rates of mental illness much lower than the general population. Lawyer mental health is not significantly different than the mental health of similarly educated professionals, such as

<sup>119</sup> This is an expected result. The NSDUH statistically derived mental illness measures are based, in part, on the same underlying K6 index used to construct SPD and MPD+ measures.

<sup>120</sup> The RDA system used for analyzing the public version of the restricted NSDUH data restricts results based on a low number of respondents to preserve privacy.

doctors and dentists.”<sup>121</sup> Our approach to the NSDUH analysis closely follows LN2021, so it is surprising that the NSDUH seems to show differing patterns.

In this section, we seek to reconcile the NHIS with the NSDUH. The data sets share several features; they are both high-quality, nationally representative surveys that allow for survey weighting to mitigate nonresponse bias. Both surveys have similar response rates. Additionally, by focusing on the NSDUH 2010-2013, we can pull past month K6 measures from both surveys. Our definitions of “lawyers” and other groups align closely, and they can be tweaked in the NHIS to be almost identical. Yet even after accounting for these differences, substantial differences in measurement still emerge: The NSDUH data suggests that lawyers experience much higher rates of mental illness than other people with a college, people with a graduate degree, and doctors. More importantly, the NSDUH data indicates that people are experiencing significantly higher rates of mental illness across the board.

We first fully replicate LN2021’s findings. Using the publicly available NHIS data and the clear explanation within LN2021, we are able to match the previous findings successfully. Under the definitions used in LN2021—serious mental illness defined as  $K6 \geq 13$ , and moderate mental illness as  $K6 \geq 7$ —we confirm that in the NHIS sample, lawyers seem to have lower or average rates of serious psychological distress (0.7%) and moderate or severe psychological distress (6.4%) than the general public and similarly educated peers.<sup>122</sup>

However, we show that how “moderate or severe psychological distress” (MPD+) is defined within the data makes a substantial difference to our understanding of lawyer mental illness, compared to other groups. Under validated measures of MPD+ ( $K6 \geq 5$ ), the rate of MPD+ in lawyers is significantly higher than previously documented. Using the MPD+ measure validated and preferred by researchers, lawyers do have higher rates of MPD+ than similarly educated professionals, such as doctors and dentists.<sup>123</sup> The empirically validated definition of MPD+ raises our estimate of lawyer distress by 150% relative to the previous estimates using 7 as the cutoff. However, regardless of the cutoff used, we find that in the NHIS, lawyers typically experience less mental illness than the general public, a pattern we do not see consistently in the NSDUH data.

Previous research has pointed out that the NHIS generated significantly lower SPD estimates than any of the NSDUH, the Behavioral Risk Factor Surveillance System, or the Medical Expenditure Panel Survey.<sup>124</sup> Scholars have offered several reasons why the NHIS might generate lower estimates of mental illness. The first is due to modes of data collection. The NHIS uses a CAPI system, while the NSDUH uses ASASCI.<sup>125</sup> In CAPI, sensitive questions are asked face-to-face, which allows for less anonymity and privacy and has been shown to result in the underreporting of sensitive behaviors and emotions.<sup>126</sup> The second reason is survey construction, where researchers have speculated that the NSDUH’s broader array

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<sup>121</sup> *Id.* at 4.

<sup>122</sup> Note that while LN2021 uses the terms “serious mental illness” and “moderate or greater mental illness,” we will use “serious psychological distress” and “moderate or greater psychological distress,” because they more precisely reflect what the K6 scale measures and the language used by SAMSHA. We do this to try to increase consistency with how the NSDUH refers to these objects: serious psychological distress is a K6-derived measure, while mental illness corresponds to the measure meeting NSDUH’s statutory requirements and is statistically derived from the K6 and the WHODAS.

<sup>123</sup> This contrasts with LN who find “Lawyer mental health is not significantly different than the mental health of similarly educated professionals, such as doctors and dentists.” We agree with the JELS article that the rate of severe mental illness is similar between these two groups.

<sup>124</sup> [Comparison of NSDUH Mental Health Data and Methods with Other Data Sources - CBHSQ Data Review - NCBI Bookshelf \(nih.gov\)](#). In 2009, NSDUH (4.6); BRFSS 2007 (4.0); NHIS 2008 (3.1); MEPS 2008 4.8

<sup>125</sup> [Comparison of NSDUH Mental Health Data and Methods with Other Data Sources - CBHSQ Data Review - NCBI Bookshelf \(nih.gov\)](#) “ACASI is considered to be an anonymous data collection technique that yields higher reporting of sensitive behaviors (Epstein, Barker, & Kroutil, 2001; Kalfs & Saris, 1998; Moskowitz, 2004).”

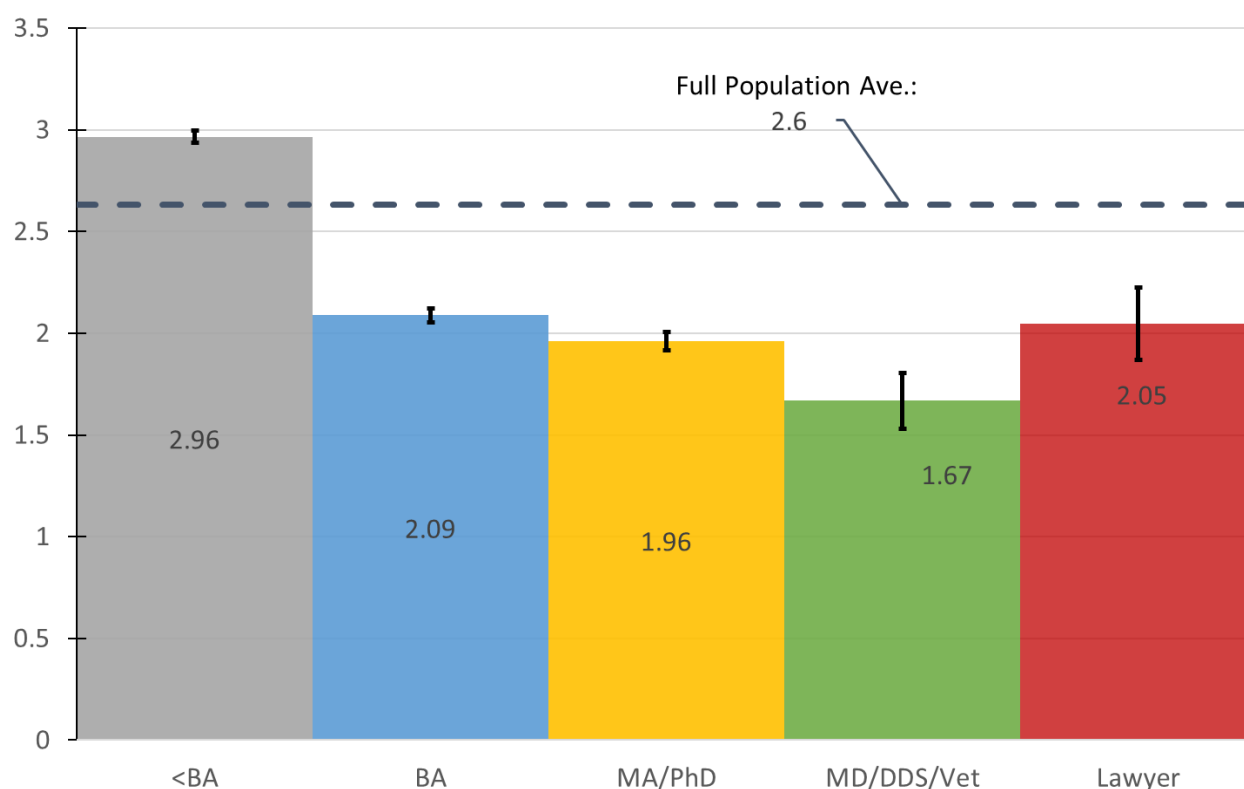
<sup>126</sup> CITE

of mental health questions may lead to increased respondent comfort.<sup>127</sup> Finally, the NHIS has slightly different K6 question wording and order, which could generate differing results.<sup>128</sup>

Because the NHIS has accessible microdata, we can evaluate different definitions of “being a lawyer,” including limiting the population to those who are currently working. We show that even in the NHIS, *currently working* lawyers have higher rates of MPD+ than currently working people with a college degree, people with a graduate degree, or doctors. And when we compare working lawyers to other workers of similar age, sex, and race surveyed in the same year, this pattern still holds.

As a first step, we show aggregate K6 scores across the relevant occupation and education groups from 2010 to 2021 (2019 and 2020 do contain the required K6 scores in the NHIS). Our findings align closely with previous work. Lawyers have raw K6 scores lower than those without a college degree, similar to those with BA or non-professional graduate degree, and significantly higher K6 scores than other professionals. Formal statistical tests are displayed in the appendix.

Figure 9: 2010—2017 NHIS past-month K6 scores



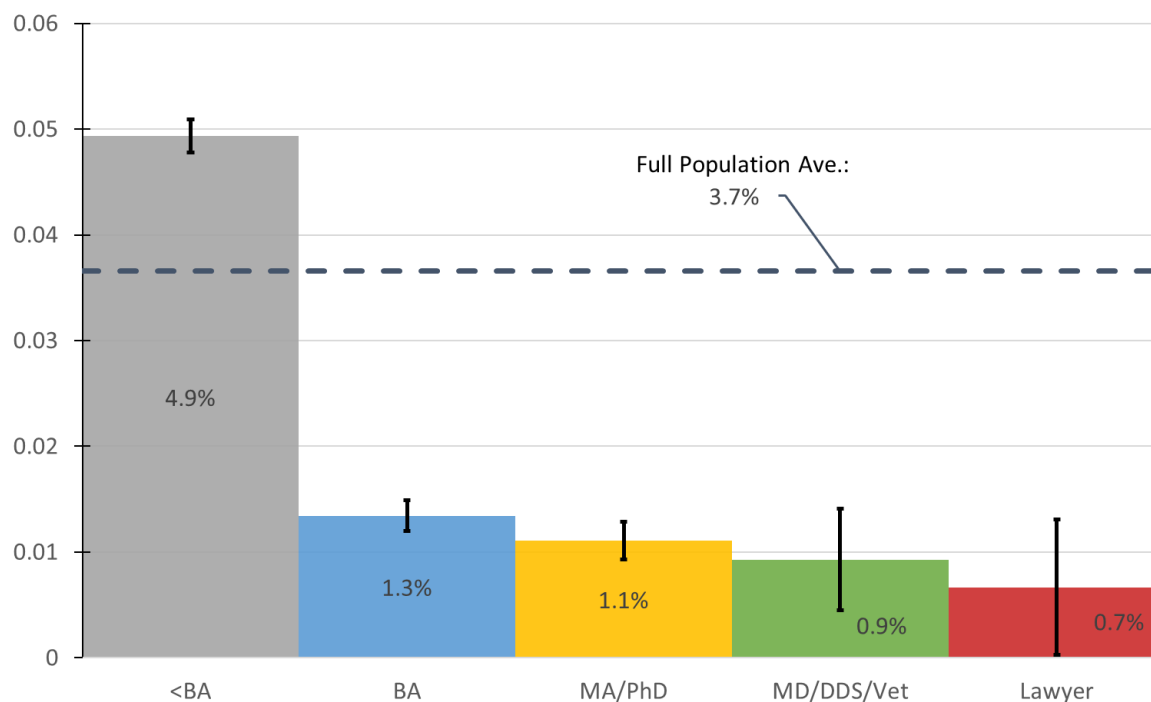
#### A. Serious Psychological Distress

<sup>127</sup> Id.

<sup>128</sup> [Comparison of NSDUH Mental Health Data and Methods with Other Data Sources - CBHSQ Data Review - NCBI Bookshelf \(nih.gov\)](#): “NHIS and MEPS asked respondents, “How often did you feel so *sad* that nothing could cheer you up?”; BRFSS asked, “How often did you feel so *depressed* that nothing could cheer you up?”; NSDUH asked, “How often did you feel so *sad or depressed* that nothing could cheer you up?” In another question, NHIS, BRFSS, and MEPS asked respondents, “How often did you feel *worthless*?”, whereas NSDUH asked respondents, “How often did you feel *down on yourself, no good, or worthless*?” The broader language of these two questions in NSDUH compared with the other surveys may partially explain the higher prevalence of SPD in NSDUH than in NHIS or BRFSS.”

To show how our underlying assumptions might be impacting our conclusions on lawyer mental health, we replicate the dataset from LN2021. Specifically, we download the National Health Interview Survey (NHIS) from IPUMS. This survey is professionally run by the U.S. Census Bureau, who randomly sample 35,000 households per year. Following LN2021, we use the 2010–2017 sample for our primary analysis. Matching the sample to the NSDUH presents qualitatively similar results to those shown below. We define a “lawyer” in our sample as someone whose detailed occupational classification is “lawyers, judges, and related workers” and who has a doctoral/professional doctoral degree. Again, following the literature, we restrict the data to adults between 25 and 64 or older than 64 and currently employed.<sup>129</sup> As with previous work, we find lawyers have lower rates of serious psychological distress in the NHIS.

Figure 10: 2010–2017 NHIS Prevalence of Past Month Serious Psychological Distress in the NHIS



Source: NHIS 2010–2017 via IPUMS. Notes: 95% confidence intervals shown.

### B. Measuring Moderate Psychological Distress in the NHIS

We next seek to understand how different definitions of MPD+ might generate differing conclusions. The most consistent measure of mental health available in the NHIS is again the Kessler 6 screening scale (K6). These questions are similar but not identical to those in the NSDUH.<sup>130</sup>

<sup>129</sup> This is another slight difference in sample definition. Our NSDUH analysis focuses on those older than 25 without a soft cap at 65. There are reasons to prefer restricting the sample at 65, but we are unable to implement this in the NSDUH RDA. However, older respondents in the NSDUH consistently report lower rates of mental illness, a fact we confirm by repeating our analysis for the 25-50-year-old population. If anything, this difference should bias us towards lower rates of mental illness in the NSDUH (the opposite of the empirical pattern we observe).

<sup>130</sup>

[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3370145/#:~:text=The%20K6%20asked%20respondents%20to,effort%20\(Kessler%20et%20al.%2C:](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3370145/#:~:text=The%20K6%20asked%20respondents%20to,effort%20(Kessler%20et%20al.%2C:) “The K6 asked respondents to consider the one month in the past 12 months when they were at their worst emotionally and to self report how frequently they experienced the following six symptoms:

The literature standard deems a respondent to have moderate or greater psychological distress when the K6 scale is 5 or greater, LN2021 deemed respondents to have MPD+ if the K6 score was greater than or equal to 7<sup>131</sup> and SPD if the index was higher than or equal to 13. Apart from these binary cutoff values, it is not clear how well the K6 scale works as a continuous measure of mental health. As LN2021 explains, “the value of K6 scores as general measures of well-being for people below the moderate mental illness threshold has not been validated.”<sup>132</sup>

With respect to moderate mental illness, the cutoff of greater than or equal to 5 is the most widely used: “One widely used measure defines any respondent with a K6 score equal to or above 5 as suffering from some type of mental illness (moderate or severe).”<sup>133</sup> To the best of our knowledge, it is the only cutoff that has been validated by researchers. A study by Prochanska and co-authors analyzed data from 50,880 adult participants in the California Health Survey.<sup>134</sup> Using a receiver operating characteristic curve, they “identified  $K6 \geq 5$  as the optimal lower threshold cut-point indicative of moderate mental distress.”<sup>135</sup> They assessed the validity of this cutoff by comparing participants with identified moderate and severe mental distress on relevant clinical, impairment, substance use, and risk behavior measures.<sup>136</sup> They found that respondents with moderate mental distress “had rates of mental health care utilization, impairment, substance use and other risks lower than respondents with serious mental distress and greater than respondents with none/low mental distress.”<sup>137</sup> Since this paper was published, it has been cited more than 750 times.<sup>138</sup> The majority of studies using the K6 scale now use  $K6 \geq 5$  as the cutoff for moderate mental distress. Most recently, Prins and co-authors found that legal occupations had the highest risk of MPD+ among all occupations, using  $K6 \geq 5$  as the cutoff for MPD.<sup>139</sup>

The graph comparing how the two different K6 cutoffs affect the NHIS data is below. Based on the  $K6 \geq 7$  cutoff, LN2021 found that “contrary to conventional wisdom, lawyers . . . suffer rates of mental illness much lower than the general population. Lawyer mental health is not significantly different than the mental health of similarly educated professionals, such as doctors and dentists.” When the same NHIS data is analyzed under the validated  $K6 \geq 5$  cutoff, lawyers still experience MPD+ significantly less often than the general public, but they experience MPD+ significantly (24%) more often than medical professionals. More importantly, 15% of lawyers experience MPD+ under the  $K6 \geq 5$  cutoff—more than double the 6% rate of MPD+ under the  $K6 \geq 7$  cutoff.

The NHIS data cannot reject the hypothesis that lawyers have the same rates of MPD+ as people with a BA or people with a graduate degree. On average, however, lawyers are 2.1 percentage points more likely to experience MPD+ than people with a graduate degree and almost one percentage point more likely to experience MPD+ than those with a college degree.

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felt nervous, hopeless, restless or fidgety, worthless, depressed, and felt that everything was an effort (Kessler et al., 2002). For each question, a value of zero, one, two, three, or four was assigned to the answer: “none of the time”, “a little of the time”, “some of the time”, “most of the time”, or “all of the time”, respectively. Responses to the six items were summed to yield a K6 score between zero and 24, with higher scores indicating a greater tendency towards mental illness.”

<sup>131</sup> In the JELS 2021 work, MI is coded as a “Dichotomous variable indicating whether observation has moderate or serious mental illness. 1 if  $K6 \geq 7$ , 0 otherwise.” Listokin & Noonan, *supra* note \_\_, at P3.33.

<sup>132</sup> *Id.* at 14.

<sup>133</sup> *Id.*

<sup>134</sup> Judith Prochanska et al., Validity study of the K6 scale as a measure of moderate mental distress based on mental health treatment need and utilization, 21 *International J. of Methods in Psychiatric Research* 88 (2012). Available at doi:10.1002/mpr.1349.

<sup>135</sup> *Id.* at 91.

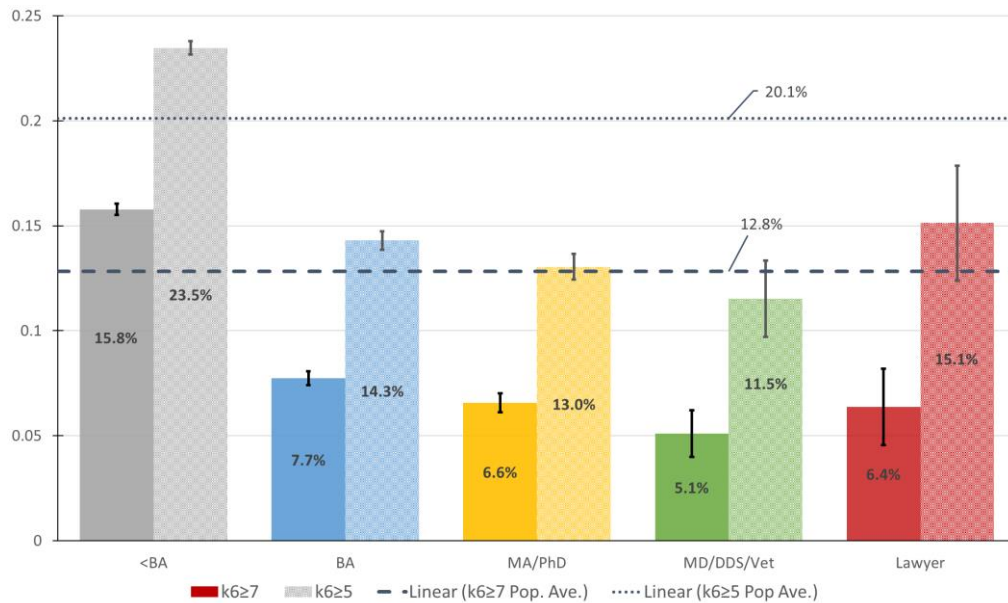
<sup>136</sup> *Id.* at 96.

<sup>137</sup> *Id.* at 88.

<sup>138</sup>

<sup>139</sup> Prins et al., *supra* note \_\_, at 137 (Figure 1).

Figure 11: NHIS 2010–2017 Prevalence of Past Month Moderate or Serious Psychological Distress

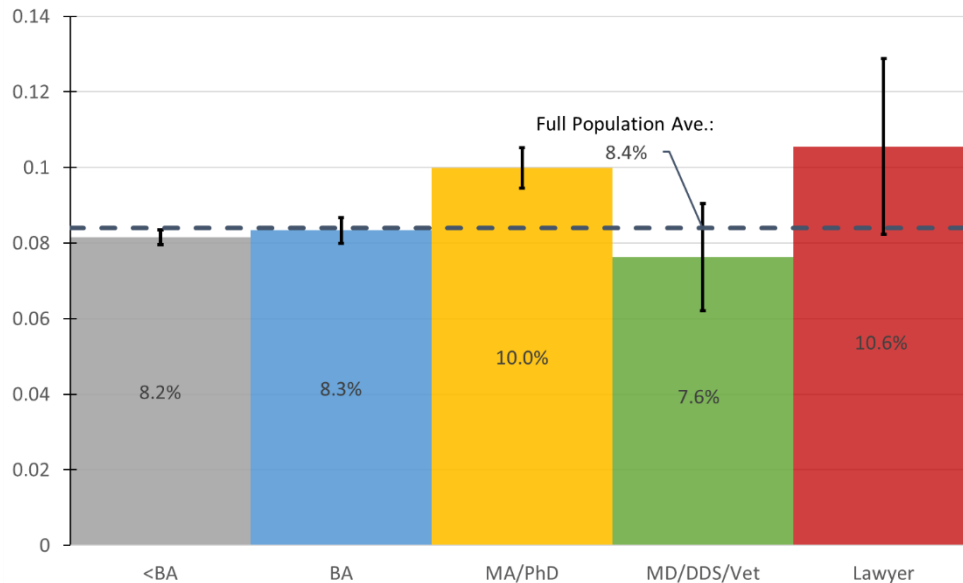


C. Receiving Mental Health Treatment

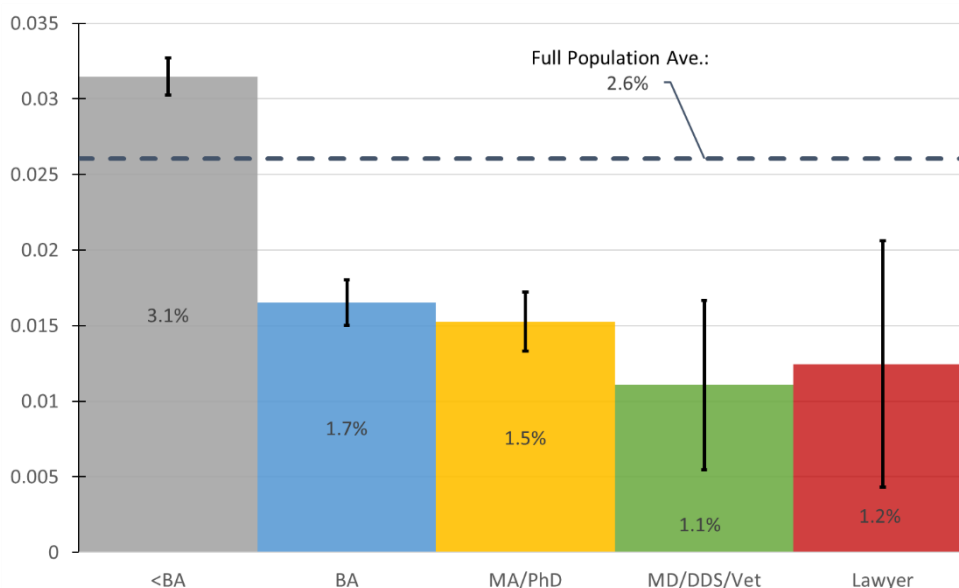
We confirm the patterns of mental health treatment first documented in the NSDUH data in the NHIS data. As with many measures related to mental health, absolute rates of seeking mental health care are higher in the NSDUH. However, the relative patterns are similar in both surveys: Lawyers are more likely to receive mental health care than other groups. Importantly, we do see some evidence of resource constraints affecting treatment rates in the NHIS. A larger portion of respondents without a college degree report needing but not receiving medical care because of affordability.

Figure 12: NHIS 2010–2017 Mental Health Care Usage

Panel A: Saw or talked to a mental health professional in the past year

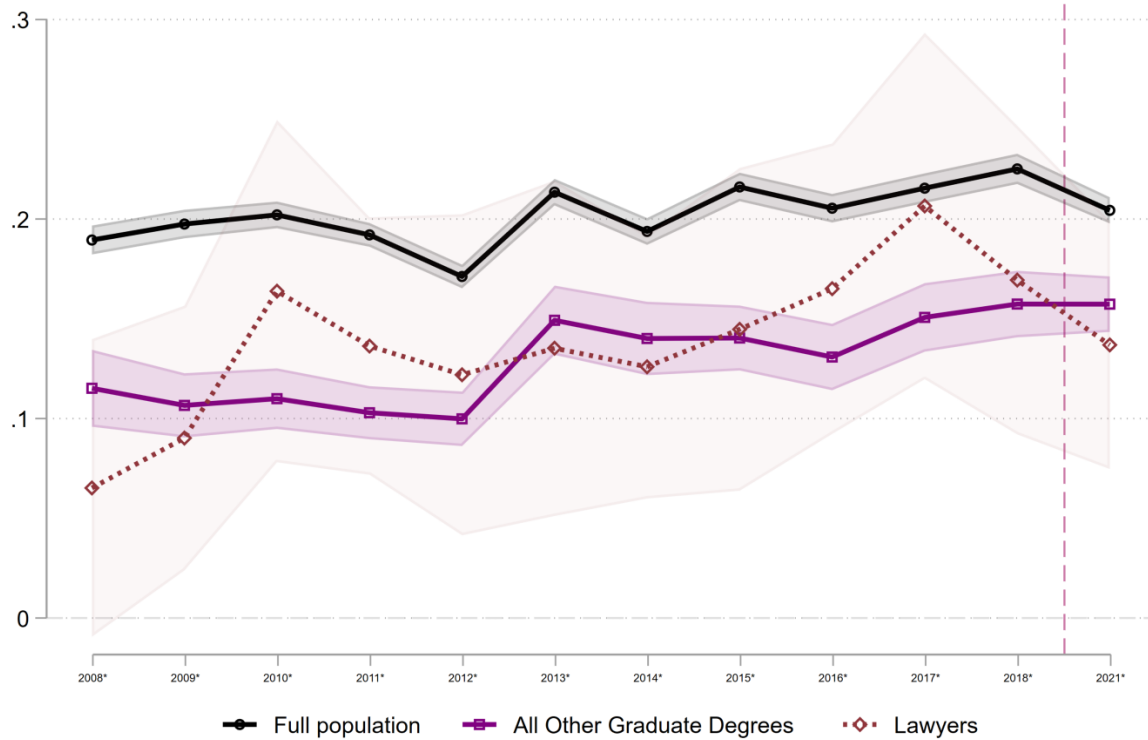




**Panel B: Needed but could not afford mental care, past year***D. Recent Trends in Lawyer Mental Illness and Types of Lawyering*

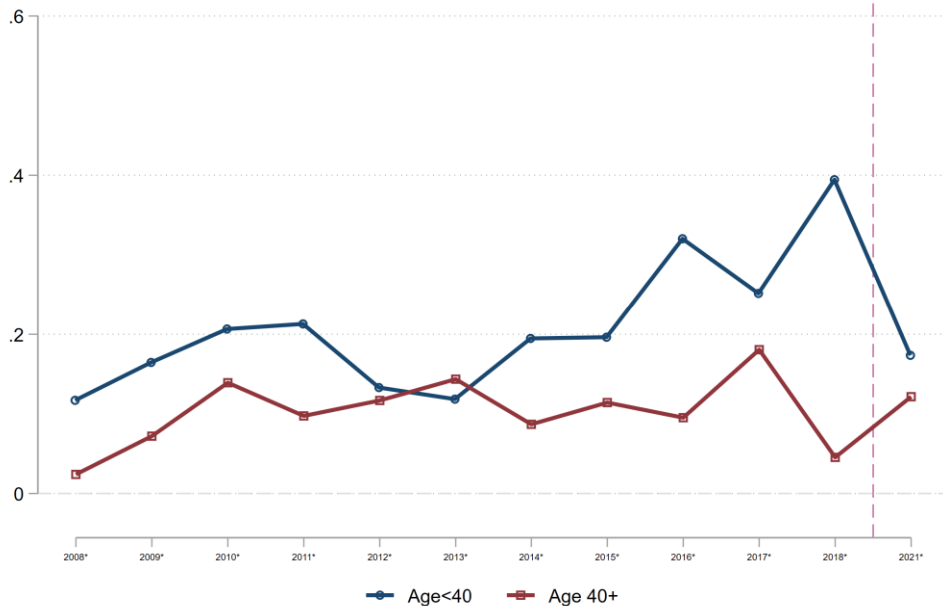
The NHIS allows for more timely analysis than the NSDUH. For instance, while the NSDUH stops in 2013, the NHIS has information on psychological distress through 2021. We present the rate of moderate or greater mental illness in the figure below. The line indicates the average rate of moderate or greater mental distress ( $K6 \geq 5$ ) for lawyers. The shaded area indicates the 95% confidence interval for these estimates. The NHIS did not collect the necessary mental illness data in 2019 and 2020 so the omission of these years is indicated with a dashed red line. There is little evidence of a clear trend over the full sample period considered, after one accounts for the uncertainty of the estimates. Although the rate of distress seems high in 2010 and 2017, and low in 2008 and 2021, these differences are neither especially large nor statistically significant. Given the absence of data from 2019 and 2020, it is not possible to say how the rate of distress was impacted by the COVID pandemic.

Figure 13: NHIS 2008—2021 Trends in the Rate of Moderate or Severe Mental Distress for Lawyers



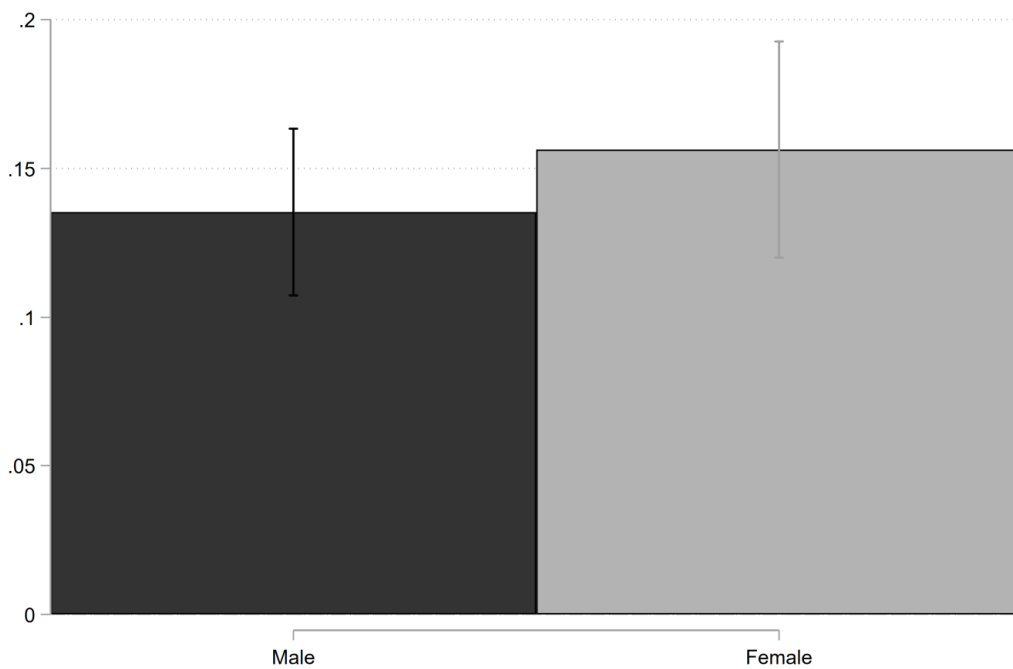
We also investigate whether these trends vary by age. We split the NHIS sample into two groups: lawyers above and below the age of 40. Consistent with our previous findings, younger lawyers have higher rates of mental distress. While there appeared to have been some increase in moderate or greater mental distress for younger lawyers relative to older lawyers, the post-pandemic measure suggests that this trend may have begun to reverse, as the rates of mental distress in 2021 were more similar between younger and older lawyers than at any point since 2013. It is important to note that these estimates are very imprecisely measured (we have omitted confidence intervals to aid readability), so any trends in the data could well be due to small samples.

Figure 14: NHIS 2008—2021 Trends in the Rate of Moderate or Severe Mental Distress; Lawyers by Age



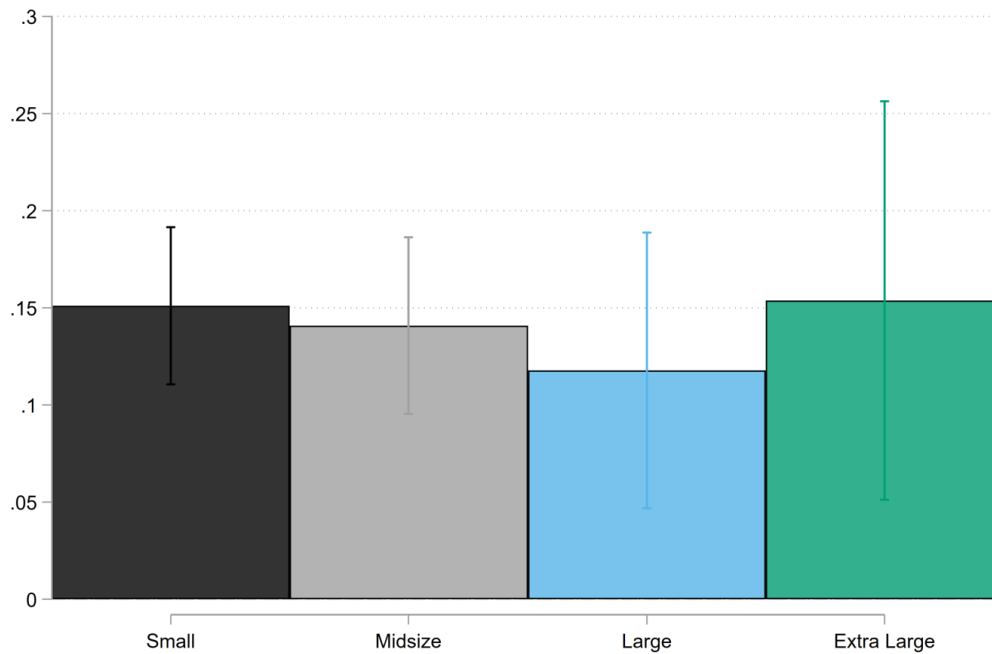
Interestingly, the difference in rates of moderate or severe mental distress between male and female lawyers in the NHIS is less stark than in the NSDUH. In the NHIS, female lawyers report rates of moderate or greater mental distress about two percentage points higher than male lawyers. However, this difference is not statistically significant and is much smaller than the 13 percentage point (about 25%) gap seen in the NSDUH’s past year measure.

Figure 15: NHIS 2008—2021 Rate of Moderate or Severe Mental Distress for Male and Female Lawyers



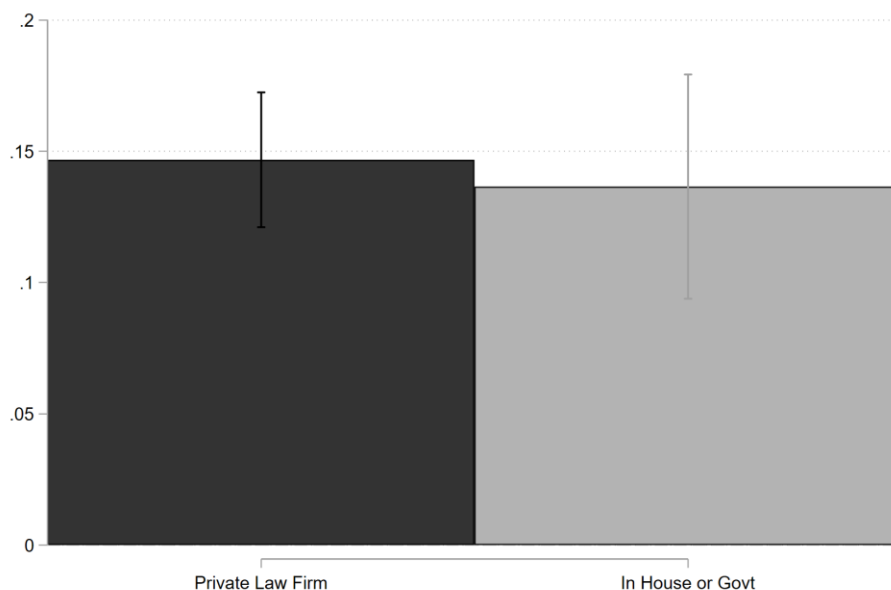
We can also drill down into types of lawyers' work environments. We consider moderate or severe mental distress of lawyers at several different-sized firms. Following LN2021, we deem small firms as having less than 10 employees, mid-size firms between 10 and 99 employees, large firms 100 to 499 employees, and super-large firms 500 or more employees. Given these relatively small subsamples, it is hard to draw clear conclusions about the relationship between firm size and mental distress from the NHIS.

*Figure 16: NHIS 2008—2021 Rate of Moderate or Greater Mental Distress for Lawyers by Firm Size*



We can also consider the rates of moderate or greater mental distress for lawyers working in-house or in the government versus lawyers working in private firms. Again because relatively few lawyers work in-house or in the government, the data do not allow us to say much about the relative rate of mental distress in these groups. The rate is about one percentage point higher for lawyers in private firms, but this is well within the margin of sampling variability.

Figure 17: NHIS 2008—2021 Rate of Moderate or Severe Mental Distress for In-House and Private Lawyers



### E. Controlling for Employment

When evaluating the conventional wisdom that lawyers are uniquely unhappy, it is important to understand exactly who qualifies as “lawyers” within that statement. LN2021 study a particular definition of lawyer: respondents who are (1) between 25 and 64 or older than 64 and currently employed; (2) answer that their primary occupation is “lawyers, judges, and related workers;” and (3) have a doctoral/professional doctoral degree. Notably, this definition is not restricted to people who are *working* as lawyers. In this subsection, we explore how the fact that lawyers have relatively high employment rates in our sample may be obscuring the unique mental health challenges of working lawyers.

In the NHIS, lawyers have the highest employment rate of the groups previously considered. Over the years considered, 88% of lawyers had been working for pay in the past one to two weeks. This same employment rate for those with less than a BA was 66%.<sup>140</sup> If we want to know something about the comparative mental health of people *working* as lawyers, we can compare those who are currently working for pay across all educational groups.<sup>141</sup>

In the Figure below, we again examine the average rates of MPD+ across different groups. The gray circles show the rate of MPD+ ( $K6 \geq 5$ ) for each educational group. Then, we dig into these rates by focusing on those who are currently working. The blue boxes show the mean values for those working in each educational group.

While restricting to the currently employed has a limited impact on our estimates of MPD+ for lawyers (partly because most surveyed lawyers were working), it substantially lowers the rate of MPD+ for people

<sup>140</sup> Rates for other groups: BA (78%), MA/PhD (80%), MD/DDS/Vet (84%), Unknown (62%).

<sup>141</sup> While one way of understanding how working as a lawyer compares to working in other jobs is to restrict to those who are currently employed, it is not obvious that conditioning on employment status is something you necessarily want to control for. If part of being a lawyer is being less likely to be unemployed, this type of exercise obscures this feature of the world. However, conditioning on being employed does allow for more direct comparison of mental health at work. In addition, we have already compared lawyers to other groups without this constraint, so it’s useful to see what changes when we add this constraint.

without a BA, people with a BA, and people with a graduate degree—groups with higher nonemployment rates than lawyers.

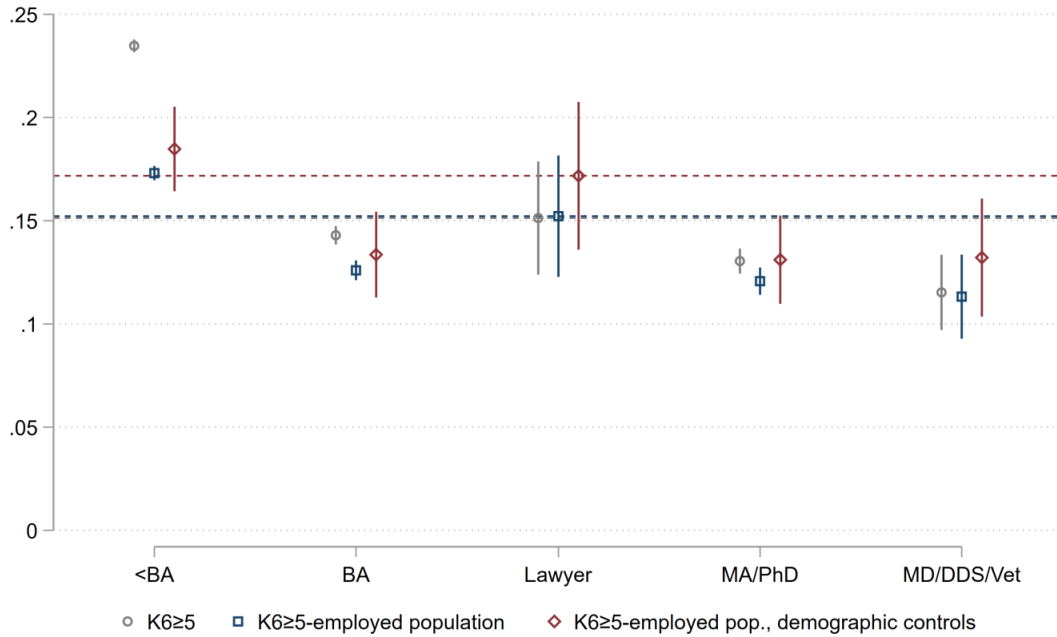
Additionally, different demographic groups may have different underlying rates of MPD+ or willingness to report MPD+ to the U.S. Census Bureau.<sup>142</sup> As a robustness exercise, we restrict the sample to the currently employed and use multivariate regression to compare mental illness rates, netting out any stable characteristics, including age, sex, race, and the year of the NHIS interview). Adding these controls does not substantially change the relationships among group means, but it results in higher MPD+ rates for all groups. After restricting our comparisons in this manner, lawyers have higher MPD+ rates than all other education groups except people without a BA. Formal statistical tests detailing these relationships are available in the appendix. These results are sensitive to the cutoff chosen. For higher cutoffs, either K6 greater than or equal to 7 or 13, lawyers appear similarly situated to other groups—except for those with less than a college degree who have higher rates of mental distress regardless of controls or sample.

Regardless of the controls or employed sample used, lawyers have lower aggregate K6 scores than doctors. After controlling for employment and fixed demographic characteristics, lawyers also have lower K6 scores than those with a college or other graduate degree and have K6 rates slightly lower, but statistically similar to, those with less than a college degree.

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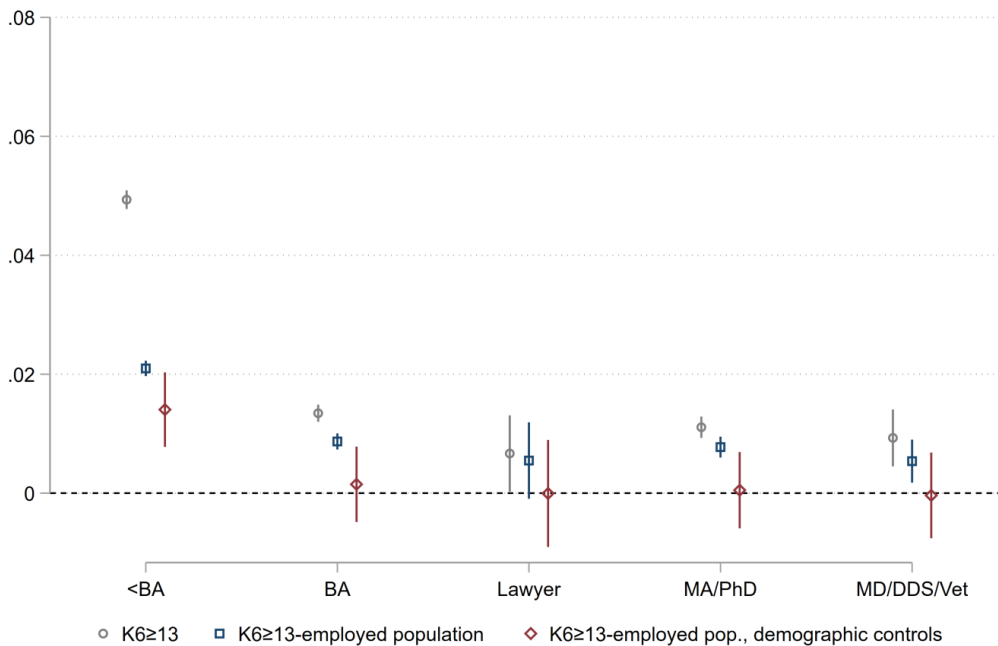
<sup>142</sup> CITE Census nonresponse by demographics.

Figure 18: NHIS 2010–2017 Prevalence of MPD+ by subgroup, controlling for employment status and demographics



Interestingly, controlling for employment and demographic characteristics has the opposite impact when considering serious psychological distress. Under these controls, lawyers have similar rates of SPD to people with a BA, people with a graduate degree, and doctors, and lower rates of SPD than people without a BA.

Figure 19: NHIS 2010–2017 Prevalence SPD by subgroup, controlling for employment status and demographics



## *F. Towards an Understanding of Differences Across Survey Results*

### *1. Differences in the Survey Design Between NHIS and NSDUH*

The NHIS and NSDUH have some agreement that lawyers have higher rates of moderate or greater psychological distress in the past month than doctors if a  $K6 \geq 5$  cutoff is used. The raw K6 score is 3.7 for lawyers and 2.9 for doctors in the NSDUH about 75% higher for both occupations than the 2.1 (lawyers) and 1.7 (doctors) measures in the NHIS. More differences emerge when considering serious psychological distress or the higher  $K6 \geq 7$  cutoff for moderate distress. The NSDUH suggests that lawyers have higher rates of past-month  $K6 \geq 7$  than all other groups apart from those with less than a college degree. The NHIS suggests that lawyers have lower rates of  $K6 \geq 7$  than all other groups apart from doctors. The NSDUH suggests that lawyers have higher rates of SPD ( $K6 \geq 13$ ) than all other groups apart from those with less than a college degree. The NHIS suggests that lawyers have lower rates of SPD than all other groups.

One possible explanation for why the NSDUH data differ from the NHIS data is survey and question design. Another explanation is how we attempted to implement the NHIS analysis in the NSDUH. In this section, we make small changes to the previous analysis of the NHIS to make it more closely aligned with the data available for the NSDUH. This includes two changes: (1) restricting the two surveys to cover the same years and (2) defining the groups in the NHIS using the less detailed education attainment data available in the NSDUH.

The NHIS does not have a set of questions as thorough as the 2010–2013 NSDUH. However, two measures are closely aligned: past-month MPD+ (which we construct based on  $K6 \geq 5$ ) and past-month SPD ( $K6 \geq 13$  in both surveys).

There are several potential differences between the NHIS and NSDUH surveys. First, previous studies using the NHIS focus on a different time period (2010–17). Results identically matching the previous work are shown in gray circles in the figures below. In order to match the time frame of the NSDUH, we repeat these results, restricting the sample to the NHIS 2010–13 sample. We show these results in blue squares. This restriction has very little impact on most of the estimates, although it modestly increases the rate of SPD for lawyers. Next, we try to match the group definitions in the NHIS to their NSDUH counterparts as closely as possible. To be precise, we change the definition of lawyer in the NHIS from a professional degree holder working in the legal industry to a professional or graduate degree holder in the legal industry so that it matches the NSDUH definition of lawyer.<sup>143</sup> We also define MD/DDS/Vet as a graduate degree holder in the medical profession. These results are shown in orange diamonds. Finally, we overlay the results using the NSDUH data in green triangles.

In panel a of Figure 12, we show the average rates of serious psychological distress ( $K6 \geq 13$ ) by group over the past month. The gray circles repeat the estimates of SPD from the NHIS we show at the beginning of this section. The blue squares show that restricting the time frame considered in the NHIS has relatively modest impacts on the NHIS estimates.

Average SPD rates are startlingly different for lawyers between the two surveys, both in absolute and relative terms. In the NSDUH, 3.9% of lawyers have past-month SPD—this is 240% higher than the NHIS measure of 1.2% on ostensibly the same question over the same occupation using the same definitions and time period. This rate is substantially and statistically different across the two surveys. Higher rates of mental distress in the NSDUH than in the NHIS are most prominent in lawyers but are more widely spread. SPD is about 35% higher in the NSDUH (4.6%) than the same sample time frame in the NHIS (3.4%). This data suggests survey differences might be especially acute for lawyers, where the pattern is particularly dramatic.<sup>144</sup>

Panel b and c show the difference in past month SPD between lawyers and each other group. In panel b, we see the percentage point differences between lawyers and other groups. In the NHIS, we see that the difference in rates of SPD between lawyers and people with a BA, people with a graduate degree, and

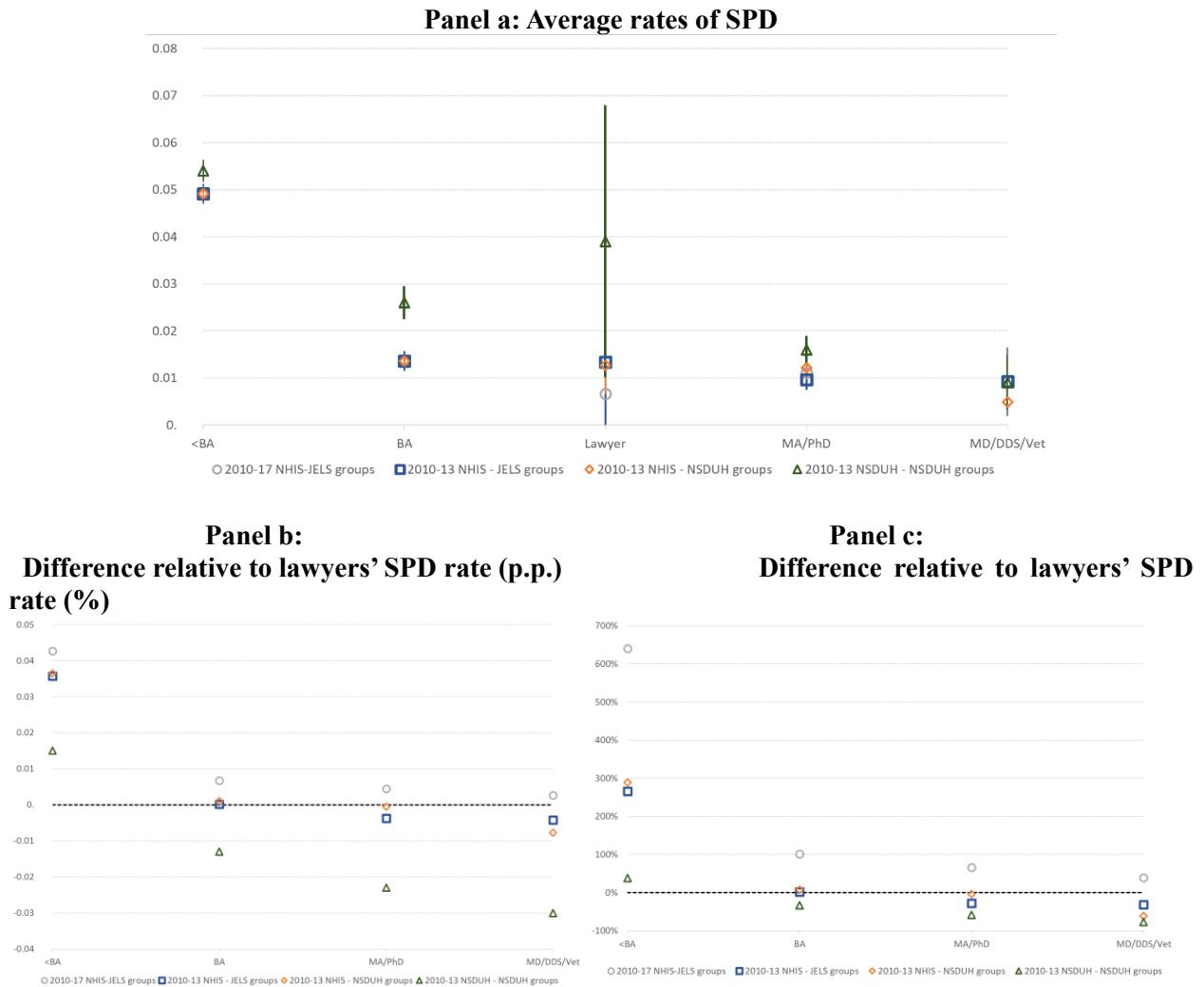
<sup>143</sup> The NSDUH does not distinguish professional and graduate degrees in our data.

<sup>144</sup> It also highlights some of the potential pitfalls in studying rare events in moderately sized samples.



doctors are all within plus or minus half of a percentage point. In the NSDUH, these differences are substantially larger, between 1 and 3 percentage points. This suggests that there are differences between the two surveys that are driven by something other than the years sampled or group definitions. Panel c shows these rates in percentage terms, which shows similar patterns.

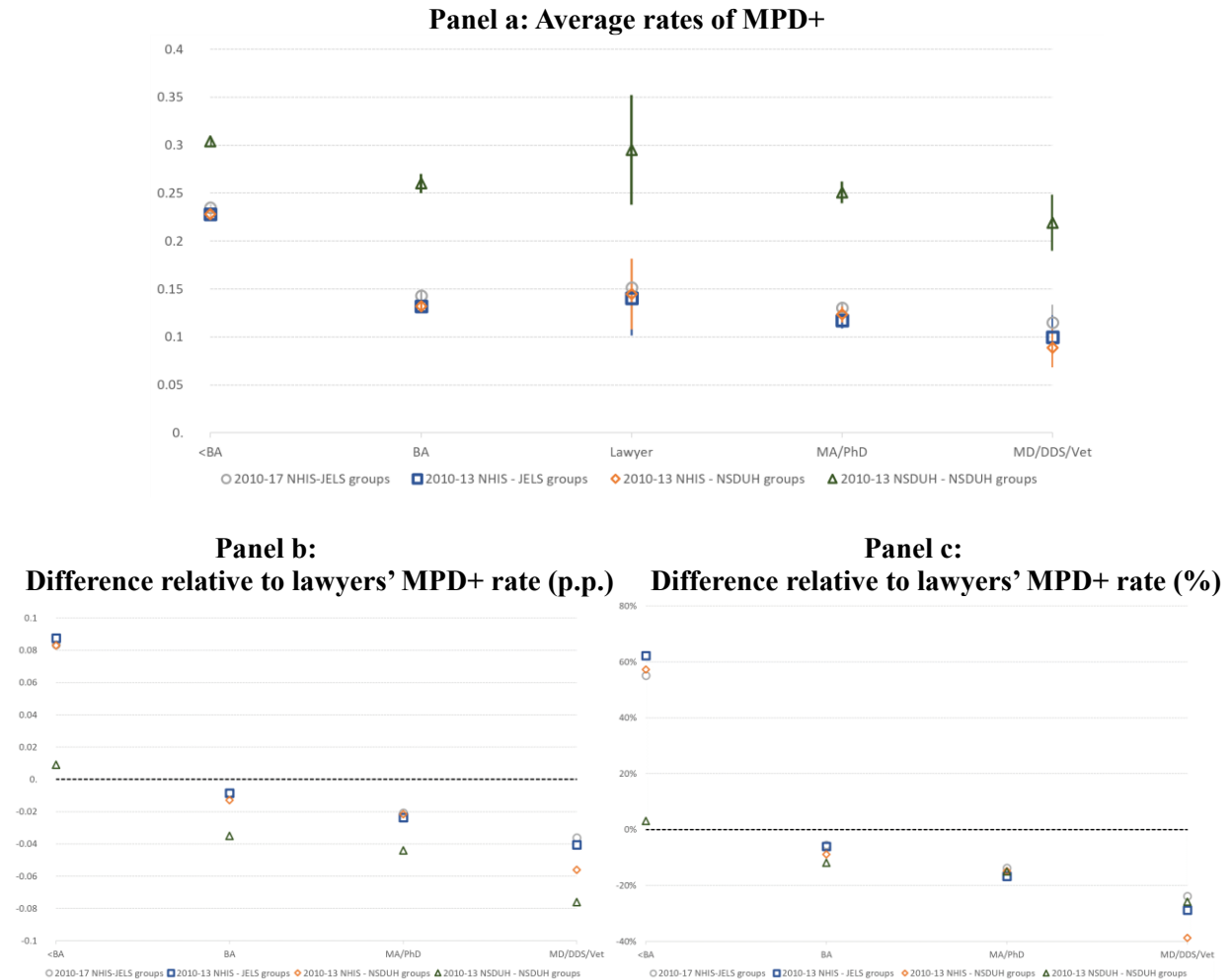
Figure 20: Past month SPD measures in NHIS and NSDUH



We repeat the exercise for MPD+ ( $K6 \geq 5$ ) over the past month. Again, we see large differences in mental health status between the two surveys. In the NSDUH, about 30% of lawyers have past-month MPD+, which is 120% higher than the NHIS measure (14%) on ostensibly the same question over the same occupation using the same definitions and time period.

In panel b, we see the percentage point differences between lawyers and other groups. They do not depend on how we construct the groups or sample years in the NHIS but do differ between the two surveys. Both surveys consistently indicate higher rates of MPD+ for lawyers. Panel c shows these rates in percentage terms, which show similar patterns. While the percentage point gap between the two surveys is larger for MPD+, when viewed in percentages, the gap is larger for SPD.

Figure 21: Differences in past month MPD+ in NHIS and NSDUH



2. The ABA 2016 survey

There are several compelling reasons that many previous surveys might suffer from bias. It is helpful to get a sense of the degree of measurement bias in the survey by comparing common measures across surveys. We revisit the ABA 2016 survey because it has been widely cited and contains many potentially useful questions. Using a validated K6 cutoff for MPD+, we find that the lawyer-specific rates in the NHIS are fairly well aligned with what one would expect from the ABA's survey, given reasonably low sampling bias. With the cutoff at  $K6 \geq 5$  for moderate psychological distress, the NHIS yields an MPD+ rate of about 15% of lawyers, which is still below the 19-28% rates quoted from the ABA report. The NSDUH suggests a rate of about 21% for a slightly different measure, "any mental illness," fairly in line with the ABA report. The past month MPD+ in the NSDUH is about 30%, slightly above the ABA. However, digging into the ABA 2016 survey shows that these 19-28% rates are for *any* level of depression, anxiety, and stress, including "mild." Once we consider a cutoff at "moderate" instead of "mild," the ABA survey rates drop to 19%, 11%, and 14% for depression, anxiety, and stress.<sup>145</sup> With reasonable assumptions about overlap across these categories, the ABA 2016 survey is not unreasonably far off from the 15% rate we see in the NHIS survey or the 30% rate in the NSDUH, especially given they are asking different questions.

<sup>145</sup> See Appendix Table 1

## VI. LIMITATIONS

The empirical work presented in our paper hopes to make some improvements on previous measures of lawyer mental illness. However, even with the best publicly available data, there are several important questions we are unable to answer. For instance, we don't measure the causal impact of being a lawyer on mental illness. It is possible that working as a lawyer changes worker's mental illness but it is also possible that people with mental illness or substance use issue select into the profession. We highlight these limitations for two reasons. For transparency, replication, and interpretation, we view it as essential for readers and policymakers to understand the limits and uncertainties of what we know about mental illness, and especially its causes, among lawyers. In addition, we hope that by highlighting the limits of the existing surveys and the evidence generated from them, future work will aim to generate additional evidence.

We highlight two limitations in particular. First, larger sample sizes of lawyers would allow us to more precisely identify groups with higher rates of mental illness and substance use. Future research using causal methods could work on identifying the underlying sources of mental illness. While the NSDUH evidence suggests that there are significant differences in the rate of mental illness relative to reasonable comparison groups, we have less precision in identifying whether this is driven most by depression, anxiety, or some other challenge.<sup>146</sup>

Second, we recognize that mental *health* is not merely the absence of mental *illness*. Mental health, like well-being, has positive dimensions. A person can have positive mental health along with a mental illness, or negative mental health in the absence of a mental illness. Due to the limitations of our data, we can measure only mental illness, not the positive dimensions of mental health or well-being. It is important to keep in mind the limitations of our measures and to include positive measures of mental health and well-being in future work.

At a higher level, mental illness and well-being are notoriously hard to measure. Even the highest quality national surveys are unlikely to fully capture if a particular lawyer is thriving or struggling. Many of the measures we are using rely on self-reported answers to survey questions. If lawyers interpret these questions differently than other people, comparison of the answers to even high-quality survey questions will reflect both underlying differences in mental illness and differences in survey interpretation.<sup>147</sup> High-quality nationally representative surveys offer several advantages in terms of standardization and representation. However, they miss some of the nuance that can be drawn from more in-depth qualitative interviews. While we have contributed evidence along one dimension, we hope additional research will continue to analyze these questions.

## VII. CONCLUSION

What is the best way to measure mental illness among lawyers? In this study, we have relied on two large, nationally representative samples collected in annual surveys, one of which uses clinically validated measures of mental illness. This is the largest sample of lawyer mental health data to date.

Based on this data, we find that lawyers consistently experience more psychological distress and mental illness than other highly educated professionals, including doctors and other people with graduate degrees. In many instances, lawyers experience more mental illness and distress than the general public and nearly all other educational groups.

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<sup>146</sup> For instance, we would prefer to use the terms "a mental illness," or "mental illnesses," rather than lumping them together as a whole. But that's largely unavoidable for us, because of our data. Both our paper and LN2021 use imprecise measures of psychological distress, which are interpreted as evidence of (at least one) mental illness. It would be inaccurate to say, "Measuring Mental Illnesses Among Lawyers," because we aren't able to disaggregate among different mental illnesses based on this data.

<sup>147</sup> Validating each survey measure to underlying behavior would be very costly. Most measures are calibrated to reflect diagnosis or impairment in the general population. Errors in classification may vary systematically with occupation or other characteristics.

For example, we find that more than one in five (21%) of lawyers have experienced a mental illness in the past year, based on a sophisticated, clinically validated measure of mental illness developed by SAMSHA, the leading mental health authority in the United States. This rate is significantly higher than the rates among the general public, people with a college degree, people with a graduate degree, and doctors.

Using more conventional measures, we find that 41% of lawyers experience moderate or severe psychological distress, a rate significantly higher than all other groups, including the general public. In addition, lawyers experience serious psychological distress significantly more often than people with a BA or people with a graduate degree, and nearly double the rate among doctors.

Contrary to conventional wisdom, we find that lawyers receive mental health treatment more often than other groups. This does not appear to be a function of availability and cost. It appears that lawyers may be more willing than other groups to seek treatment.

These findings are consistent with both the conventional wisdom and the empirical literature suggesting that mental illness and substance use are more common among lawyers than others. The legal professional faces a specific and significant challenge in supporting the mental health of practitioners. Future studies should investigate whether lawyers are bringing mental health challenges with them into the practice of law or whether there is something about law school, the profession, or the nature of legal work that is causing mental illness to develop in lawyers.

Our data also confirms that some subgroups of lawyers experience more mental illness than others. Female lawyers are 50% more likely than male lawyers to have a mental illness and 60% more likely to have a serious mental illness. Similarly, lawyers under age 35 are twice as likely to have a mental illness as lawyers over age 50. Regulators of the legal profession interested in matching resources to reported needs should be targeting and tailoring mental health interventions to support young lawyers and female lawyers.

Our data confirm that alcohol is a serious problem for lawyers. Lawyers report alcohol abuse and dependence and driving while intoxicated at higher rates than the general public and any other educational groups. Male lawyers are 49% more likely than female lawyers to report alcohol abuse or dependence. But in both groups, driving while intoxicated is widely prevalent. One in four male lawyers reports driving while intoxicated, as well as one in five female lawyers.

Young lawyers are more likely to experience alcohol abuse and dependence than older lawyers, but lawyers of all ages display high rates of driving while intoxicated. We concur with previous studies suggesting that reformers should seriously consider the role that alcohol plays in the profession and take aggressive steps to reduce it.

VIII. APPENDIX

Appendix Table 1: Reproduction of ABA survey table

**TABLE 4.** Summary Statistics for Depression Anxiety Stress Scale (DASS-21)

	DASS Depression				DASS Anxiety				DASS Stress			
	n	M	SD	P <sup>a</sup>	n	M	SD	P <sup>a</sup>	n	M	SD	P <sup>a</sup>
Total sample	12300	3.51	4.29		12277	1.96	2.82		12271	4.97	4.07	
Sex												
Men	6518	3.67	4.46	<0.05	6515	1.84	2.79	<0.001	6514	4.75	4.08	<0.001
Women	5726	3.34	4.08		5705	2.10	2.86		5705	5.22	4.03	
Age category (yrs)												
30 or younger	1476	3.71	4.15		1472	2.62	3.18		1472	5.54	4.61	
31–40	3112	3.96	4.50		3113	2.43	3.15		3107	5.99	4.31	
41–50	2572	3.83	4.54	<0.001	2565	2.03	2.92	<0.001	2559	5.36	4.12	<0.001
51–60	2808	3.41	4.27		2801	1.64	2.50		2802	4.47	3.78	
61–70	1927	2.63	3.65		1933	1.20	2.06		1929	3.46	3.27	
71 or older	326	2.03	3.16		316	0.95	1.73		325	2.72	3.21	
Years in field												
0–10 yrs	4330	3.93	4.45		4314	2.51	3.13		4322	5.82	4.24	
11–20 yrs	2800	3.81	4.48		2800	2.09	3.01		2777	5.45	4.20	
21–30 yrs	2499	3.37	4.21	<0.001	2509	1.67	2.59	<0.001	2498	4.46	3.79	<0.001
31–40 yrs	2069	2.81	3.84		2063	1.22	1.98		2084	3.74	3.43	
41 or more yrs	575	1.95	3.02		564	1.01	1.94		562	2.81	3.01	
Work environment												
Private firm	5028	3.47	4.17		5029	2.01	2.85		5027	5.11	4.06	
Sole practitioner, private practice	2568	4.27	4.84		2563	2.18	3.08		2567	5.22	4.34	
In-house: government, public, or nonprofit	2391	3.45	4.26		2378	1.91	2.69		2382	4.91	3.97	
In-house: corporation or for-profit institution	900	2.96	3.66	<0.001	901	1.84	2.80	<0.001	898	4.74	3.97	<0.001
Judicial chambers	717	2.39	3.50		710	1.31	2.19		712	3.80	3.44	
College or law school	182	2.90	3.72		188	1.43	2.09		183	4.48	3.61	
Bar Administration or Lawyers Assistance Program	55	2.96	3.65		52	1.40	1.94		53	4.74	3.55	
Firm position												
Clerk or paralegal	120	3.98	4.97		121	2.10	2.88		121	4.68	3.81	
Junior associate	1034	3.93	4.25		1031	2.73	3.31		1033	5.78	4.16	
Senior associate	1021	4.20	4.60	<0.001	1020	2.37	2.95	<0.001	1020	5.91	4.33	<0.001
Junior partner	590	3.88	4.22		592	2.16	2.78		586	5.68	4.15	
Managing partner	713	2.77	3.58		706	1.62	2.50		709	4.73	3.84	
Senior partner	1219	2.70	3.61		1230	1.37	2.43		1228	4.08	3.57	
DASS-21 category frequencies	n	%			n	%			n	%		
Normal	8816	71.7			9908	80.7			9485	77.3		
Mild	1172	9.5			1059	8.6			1081	8.8		
Moderate	1278	10.4			615	5.0			1001	8.2		
Severe	496	4.0			310	2.5			546	4.4		
Extremely severe	538	4.4			385	3.1			158	1.3		

<sup>a</sup>Comparisons were analyzed using Mann-Whitney U tests and Kruskal-Wallis tests.

A. Additional NSDUH Measures

The NSDUH includes more measures of mental health than many other surveys. In addition to the K6 measure, our version of the NSDUH also measures major depression in the past year and lifetime windows. Major depression is defined as “endorsing at least five or more of the following nine symptoms as occurring nearly every day in the same 2-week period and when at least one of the symptoms is a depressed mood or loss of interest or pleasure in daily activities: (1) depressed mood most of the day; (2) markedly diminished interest or pleasure in all or almost all activities most of the day; (3) significant weight loss when not sick or dieting, weight gain when not pregnant or growing, or decrease or increase in appetite; (4) insomnia or hypersomnia; (5) psychomotor agitation or retardation; (6) fatigue or loss of energy; (7) feelings of worthlessness; (8) diminished ability to think or concentrate or indecisiveness; and (9) recurrent thoughts of death or suicidal ideation (APA, 1994).”<sup>148</sup> While the K6 is a generalized measure of mental health, covering multiple factors, the major depression question is zooming in on one aspect of mental health.

In the data we analyzed, lawyers had major depression at similar rates to most other groups, with about 6 percent of respondents reporting an incidence of major depression in the past year (panel a). This rate increases to 16 percent for lawyer's lifetime major depression. Lawyers have higher rates of lifetime major depression than those with less education (a college degree or less). Indeed, they have lifetime depression rates about three percentage points higher than the average respondent. Interestingly, the share of lawyers with lifetime major depression is slightly higher, but not statistically distinguishable, than those with a graduate degree not working in the legal profession and doctors.

<sup>148</sup> <https://www.ncbi.nlm.nih.gov/books/NBK390286/>

Figure 22: K6 Histogram, Lawyers and the Full Population

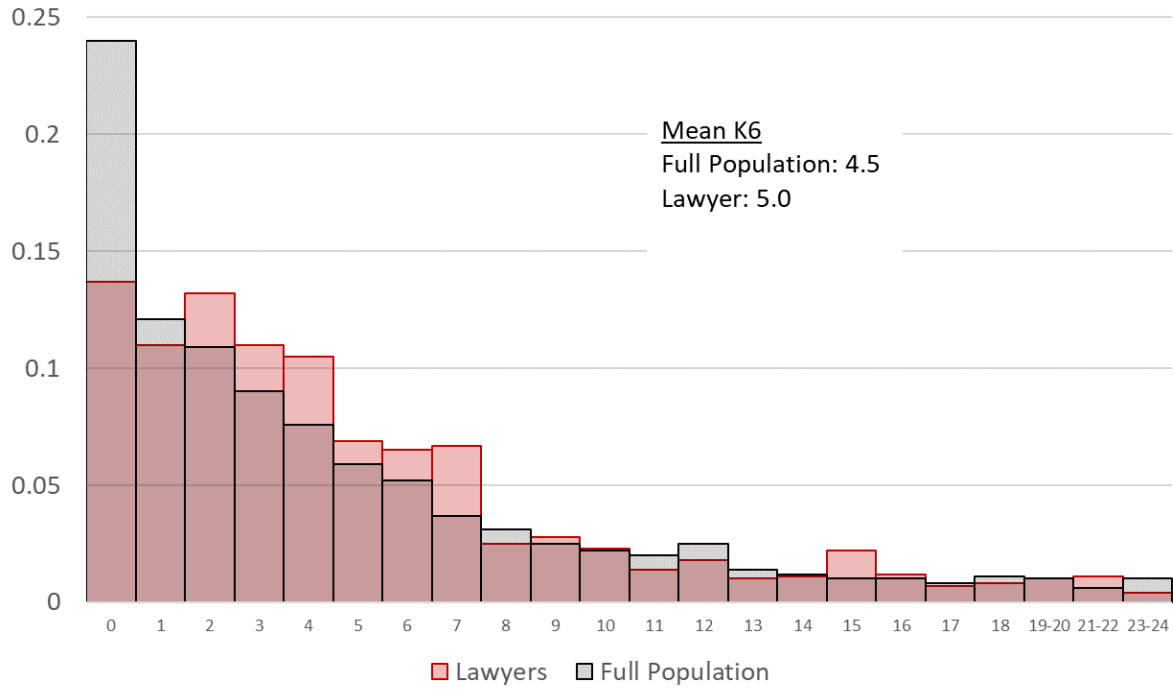


Figure 23: K6 Distribution, Share of Group with a K6 Score Greater Than:

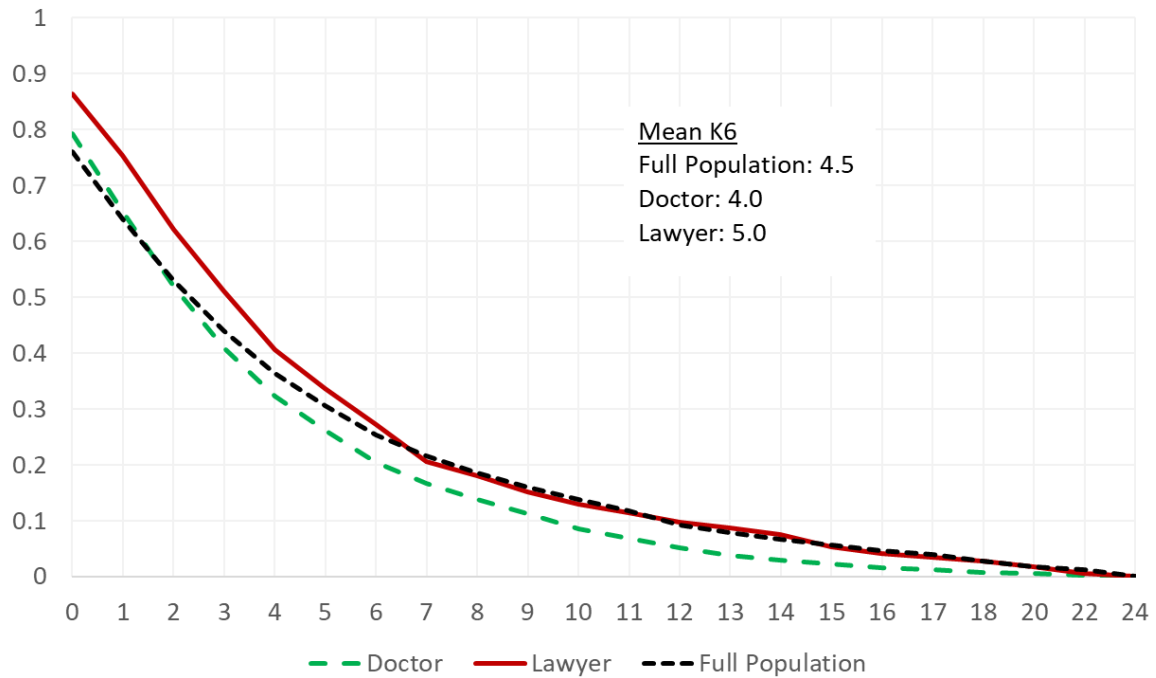


Figure 24: NSDUH 2006-2013 MPD+ past year, cutoff at K6 greater or equal to 7

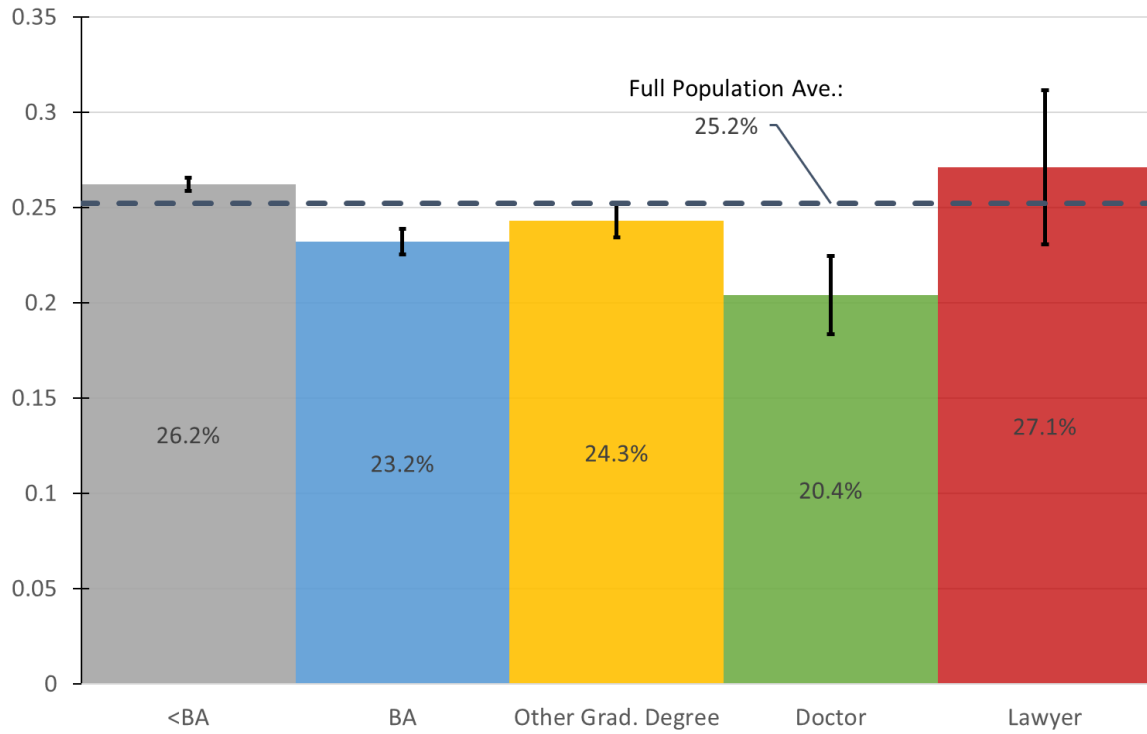


Figure 25: Major depression

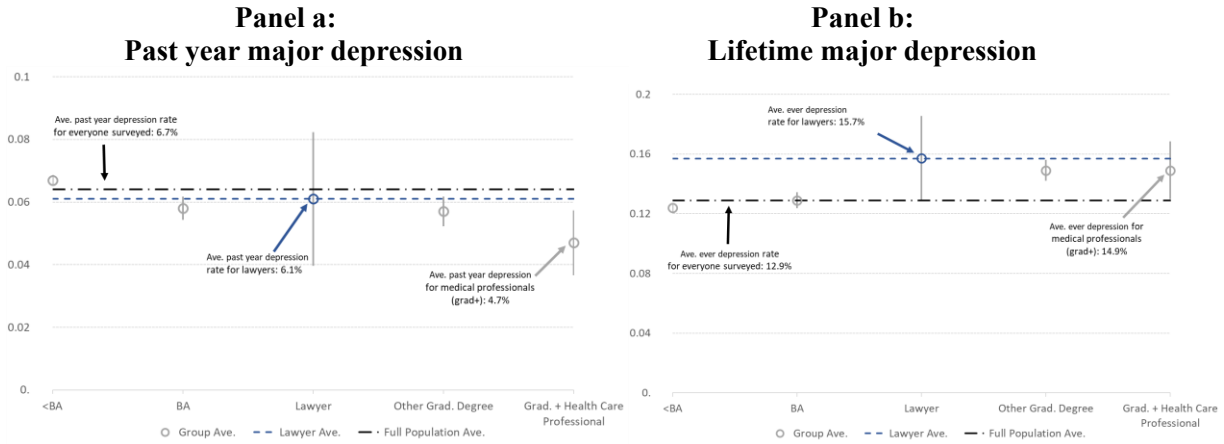
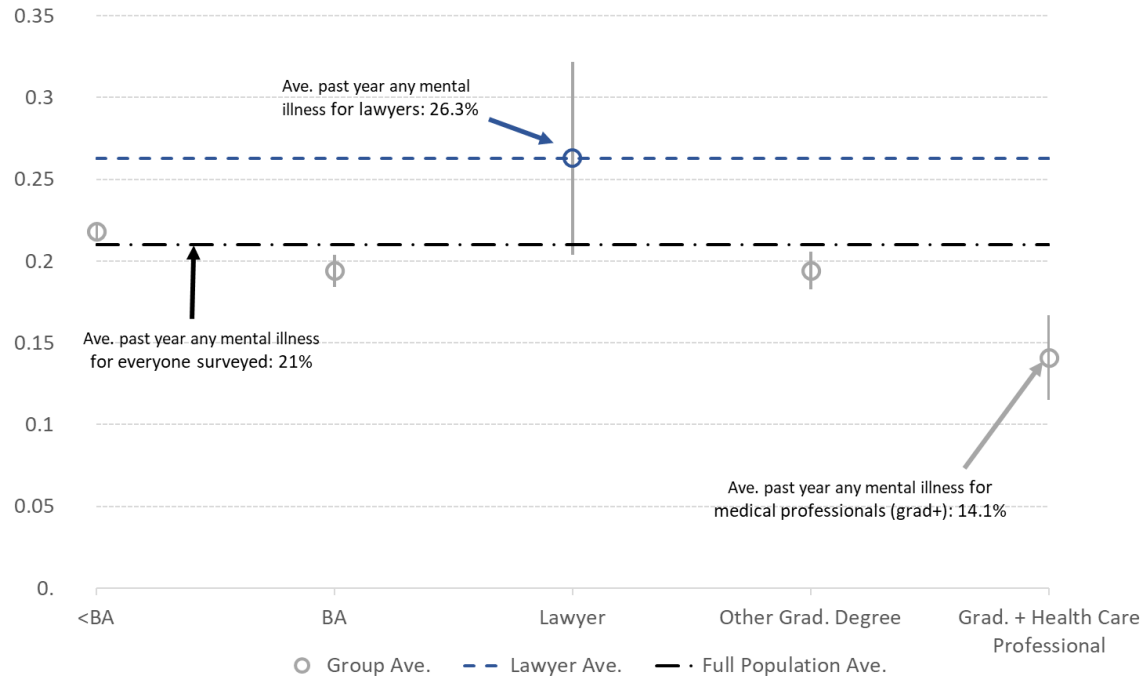


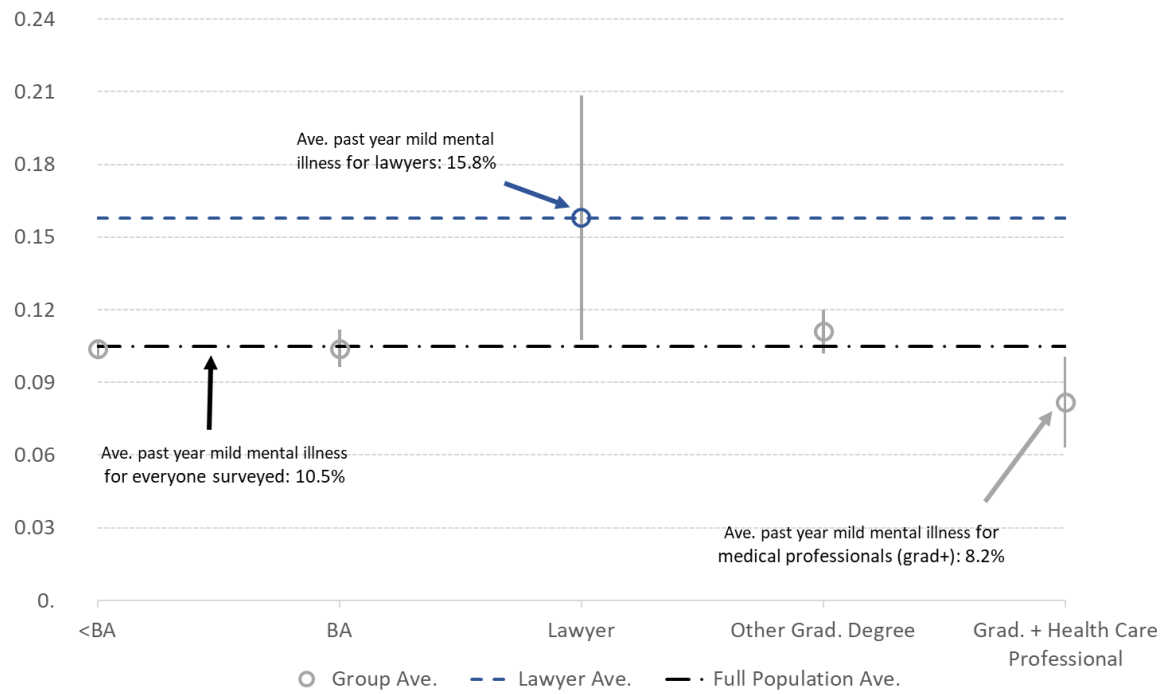
Figure 26: Model-derived mental health measures for respondents aged 25-50

Panel a: Any mental illness

MEASURING LAWYER MENTAL ILLNESS

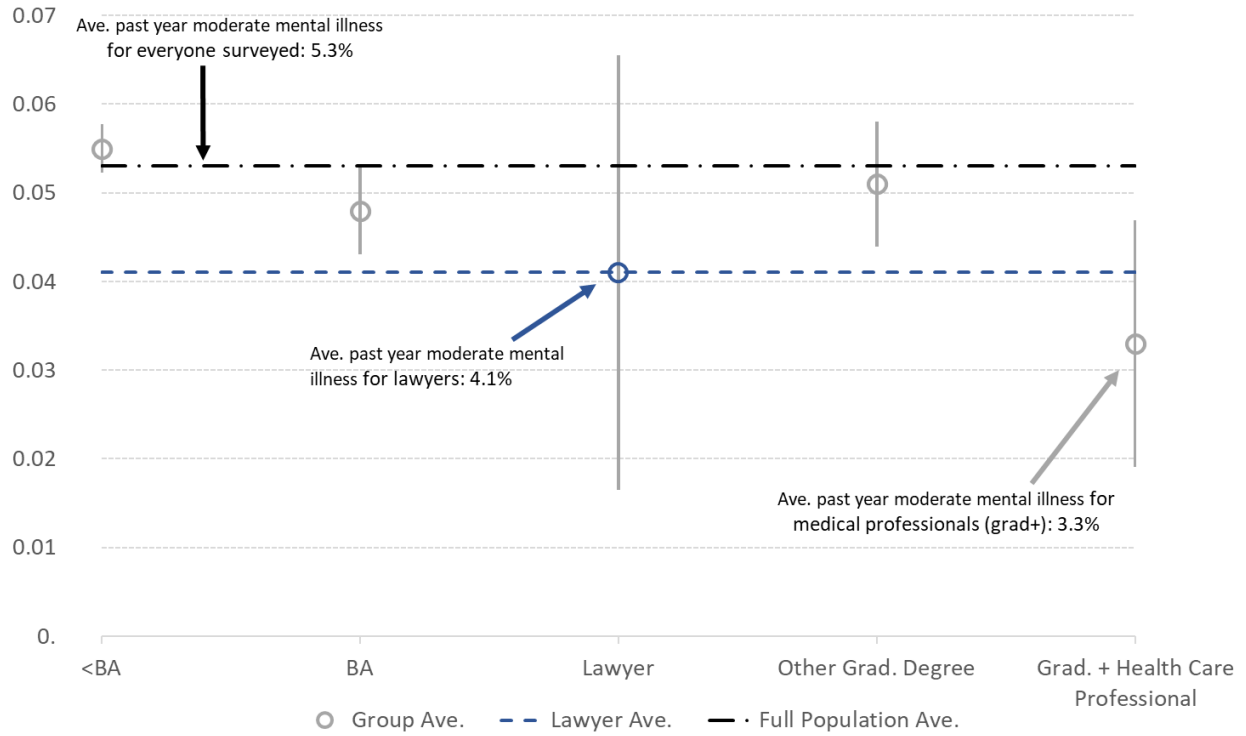


**Panel b: Mild mental illness**

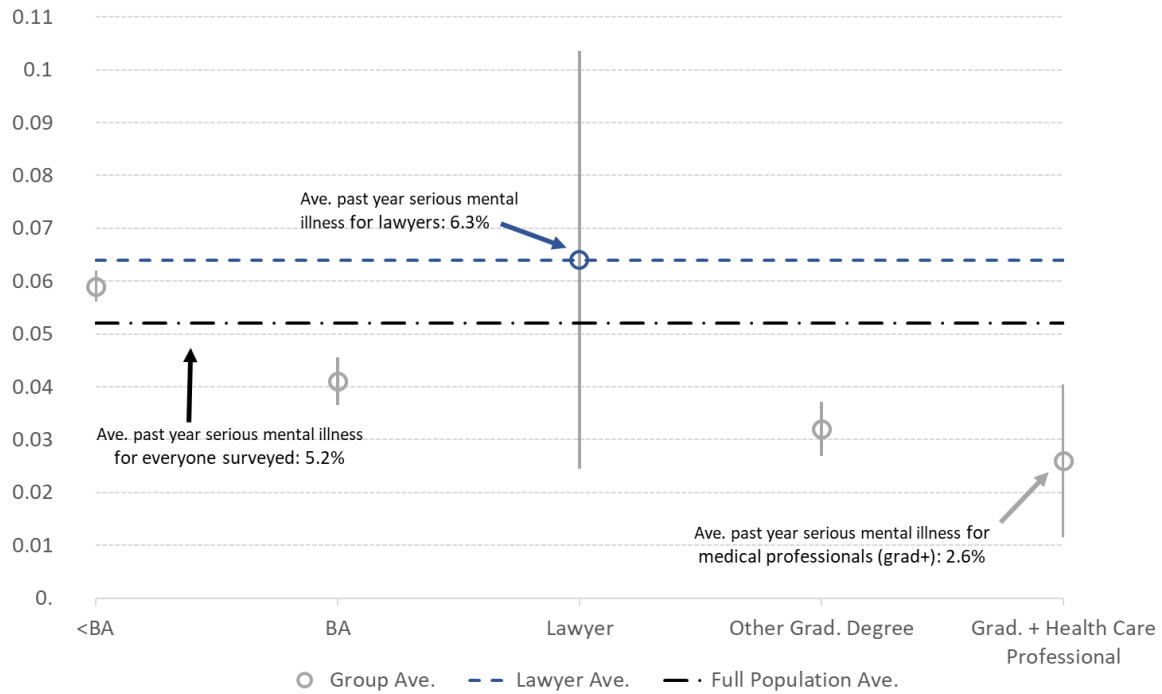




**Panel c: Moderate mental illness**



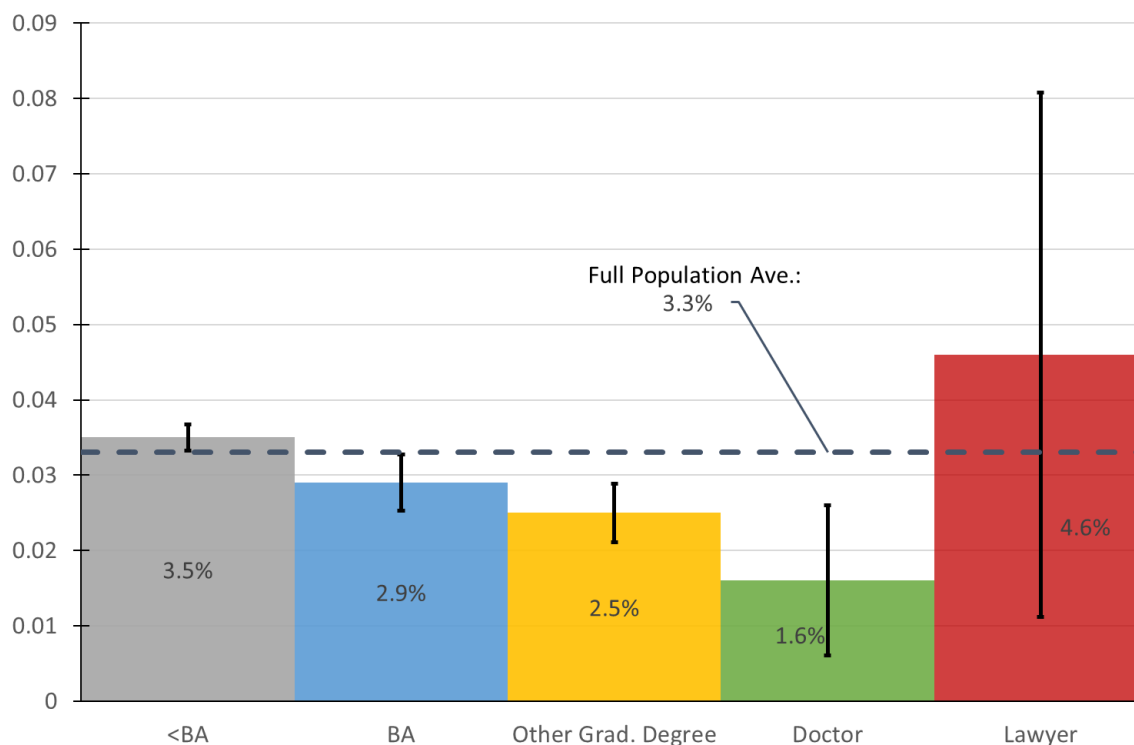
**Panel d: Serious mental illness**



Starting in 2009, NSDUH began asking respondents whether they had seriously thought about suicide in the past year. While suicidal ideation is not a mental illness, it is universally regarded as an important

indicator of mental health and a common symptom of mental illness.<sup>149</sup> In this data, 4.6% of lawyers seriously thought about suicide in the past year. Although this test is not particularly well-powered to pick up differences across groups, the rate of suicidal ideation among lawyers was higher than the rates among people with an MA or a Ph.D. (2.6%) and medical professionals (1.7%). It is also nominally higher than the rates among people without a BA (4.3%), people with a BA (2.9%), and the general public (3.3%), but these differences are not statistically significant.

Figure 27: Suicidal Ideation



While our simple group means do not account for other potential differences across groups, our findings align well with research that takes a more robust modeling approach using the NSDUH microdata and a rich set of socio-economic controls. This previous work “identified adults in specific occupations at higher risk for suicidal ideation, particularly media and communication workers; lawyers, judges, and legal support workers.”<sup>150</sup> In this study, the model adjusted prevalence of suicidal ideation was 4.8% among lawyers, judges, and legal support workers, 3.5% among all currently employed adults ages 18-64, and 3.3% among health diagnosing and treatment occupations.<sup>151</sup>

<sup>149</sup> CITE

<sup>150</sup> Beth Han et al., Suicidal ideation, suicide attempt, and occupations among employed adults aged 18–64 years in the United States, 66 *Comprehensive Psychiatry* 176, 182 (2017). Available at doi:10.1016/j.comppsy.2016.02.001.

<sup>151</sup> *Id.* at 176, 181. These rates are lower than the rates found in a recent study of legal professionals, but this study had a response rate of 5%, so it was subject to nonresponse bias. In any event, this study also found that legal professionals experienced a higher rate of suicidal ideation than the general public. See Thiese et al., *supra* note \_\_, at 383 (finding that 11.9% of legal professionals reported thoughts that they would be “better off dead” or thoughts of hurting themselves in some way” at least “several days” in the past two weeks, compared with 2.4% of a sample of 2,112 working adults between 21 and 80).

*B. Additional NHIS Measures**Appendix Table 2: K6 score relative to lawyers*

	(1)	(2)	(3)	(4)
<BA	0.959*** (0.106)	0.834*** (0.105)	0.200* (0.110)	0.116 (0.107)
BA	-0.00636 (0.107)	-0.117 (0.106)	-0.171 (0.110)	-0.298*** (0.108)
MA/PhD	-0.100 (0.108)	-0.176* (0.107)	-0.188* (0.112)	-0.283*** (0.110)
MD/DDS/Vet	-0.364*** (0.127)	-0.329*** (0.126)	-0.435*** (0.131)	-0.429*** (0.128)
Observations	178643	178643	124840	124840
Employed Sample	No	No	Yes	Yes
Demographic Controls	No	Yes	No	Yes

Notes: NHIS 2010—2017 data. Robust standard errors in parentheses. \*  $p < .1$  \*\*  $p < 0.05$  \*\*\*  $p < .01$ . Employed sample restricts to only those respondents who report being employed. Demographic controls include fixed effects for age, sex, and self-reported race.

*Appendix Table 3: K6 greater than or equal to 5 relative to lawyers*

	(1)	(2)	(3)	(4)
<BA	0.0834*** (0.0141)	0.0723*** (0.0141)	0.0209 (0.0151)	0.0130 (0.0150)
BA	-0.00834 (0.0142)	-0.0188 (0.0141)	-0.0262* (0.0152)	-0.0382** (0.0151)
MA/PhD	-0.0209 (0.0143)	-0.0283** (0.0143)	-0.0315** (0.0154)	-0.0407*** (0.0153)
MD/DDS/Vet	-0.0360** (0.0168)	-0.0340** (0.0167)	-0.0390** (0.0183)	-0.0396** (0.0181)
Observations	178643	178643	124442	124442
Employed Sample	No	No	Yes	Yes
Demographic Controls	No	Yes	No	Yes

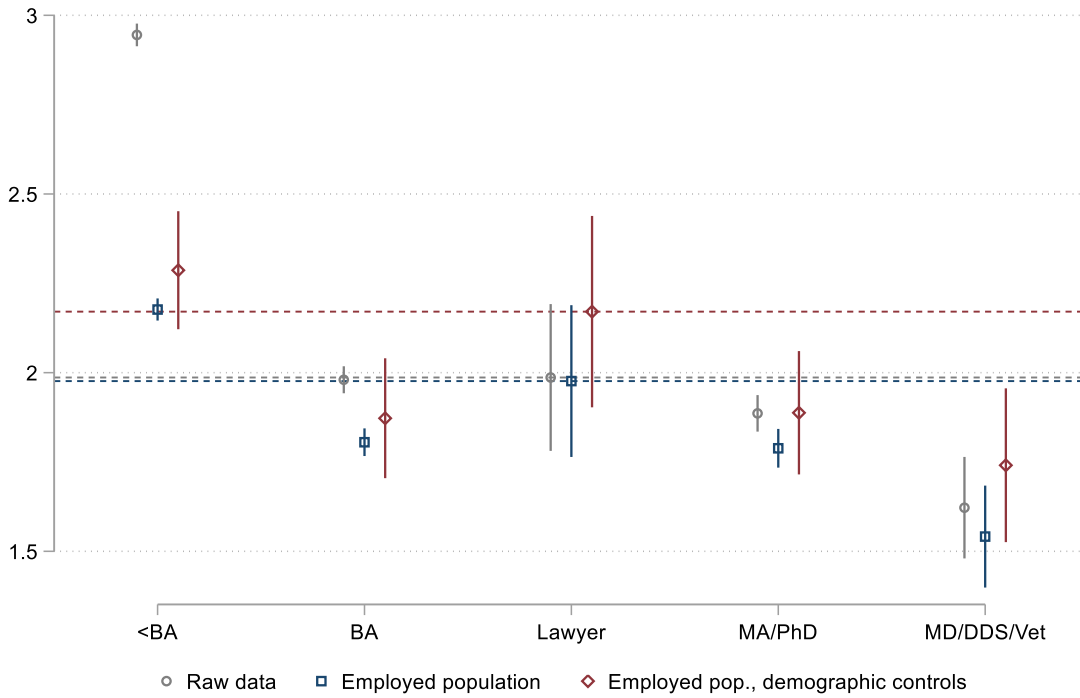
*Appendix Table 4: K6 greater than or equal to 7 relative to lawyers*

	(1)	(2)	(3)	(4)
<BA	0.0940*** (0.00937)	0.0848*** (0.00938)	0.0381*** (0.0101)	0.0326*** (0.0101)
BA	0.0136 (0.00943)	0.00594 (0.00944)	-0.00177 (0.0102)	-0.00975 (0.0101)
MA/PhD	0.00196 (0.00955)	-0.00400 (0.00956)	-0.00842 (0.0103)	-0.0150 (0.0103)
MD/DDS/Vet	-0.0127 (0.0109)	-0.0113 (0.0109)	-0.0171 (0.0118)	-0.0178 (0.0117)
Observations	178643	178643	124442	124442
Employed Sample	No	No	Yes	Yes
Demographic Controls	No	Yes	No	Yes

*Appendix Table 5: K6 greater than or equal to 13 relative to lawyers*

	(1)	(2)	(3)	(4)
<BA	0.0427*** (0.00337)	0.0398*** (0.00339)	0.0155*** (0.00334)	0.0141*** (0.00333)
BA	0.00677** (0.00335)	0.00506 (0.00338)	0.00321 (0.00335)	0.00154 (0.00335)
MA/PhD	0.00442 (0.00340)	0.00286 (0.00342)	0.00227 (0.00340)	0.000549 (0.00338)
MD/DDS/Vet	0.00262 (0.00408)	0.00331 (0.00412)	-0.0000978 (0.00376)	-0.000325 (0.00376)
Observations	178643	178643	124442	124442
Employed Sample	No	No	Yes	Yes
Demographic Controls	No	Yes	No	Yes

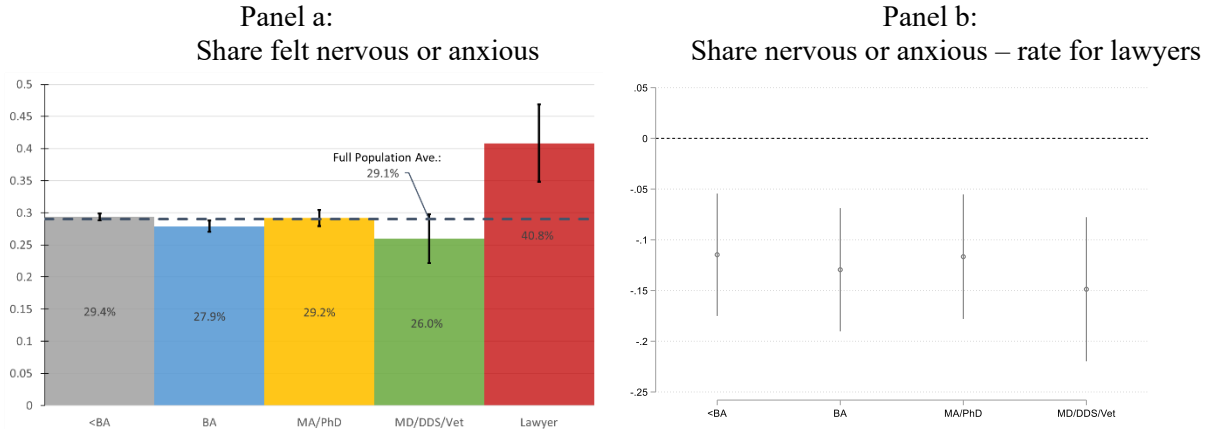
Figure 28: Average K6 score by subgroup, employment status, and controlling for demographics



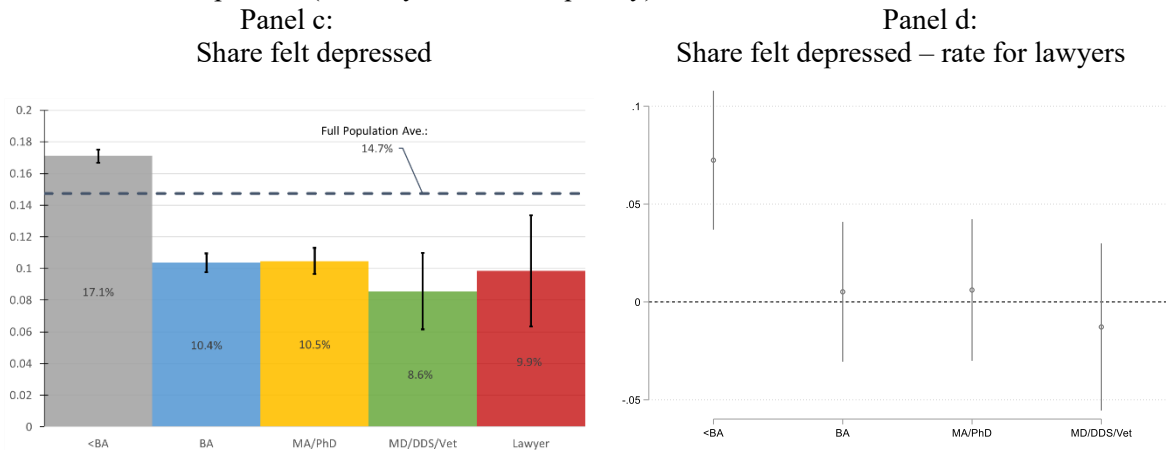
A previously unexamined question with the NHIS is how often each group feels anxious or nervous. Based on the answer to this question we construct and plot a binary variable. If the respondent feels nervous or anxious at frequency equal to or higher than monthly (so monthly, weekly or daily), we count the respondent as “feeling anxious.” Similar patterns emerge if we draw the line at the weekly or daily levels (although there is of course an absolute level shift depending upon the preferred measure). Lawyers in the NHIS have dramatically higher rates of anxiety or worry, with more than 40% reporting these feelings frequently, compared to less than 30% for every other group. Interestingly, lawyers report similar rates of feeling depressed compared to other groups and appear to feel depressed less frequently than those with less than a college degree.

Figure 29: Feeling anxious or depressed

How often feel worried, nervous or anxious (monthly or more frequently)<sup>152</sup>



How often feel depressed (monthly or more frequently)



We perform a similar exercise allowing for a closer study of how comparisons across groups change using the two cutoff values in FIGURE 18. This figure follows the same format as the figure above (with boxes indicating point estimates and lines confidence intervals), but these estimates are now relative differences to the lawyer average. That is, a black box above the dashed black line indicates a group has a higher rate of MPD+ than lawyers, while a box below indicates a lower rate. A relative difference is statistically significantly different than the lawyer average (at the 5% threshold) if the confidence interval does not cross the black dashed line.

<sup>152</sup> We have qualitatively similar patterns of results if we require feeling nervous or anxious at a weekly or more frequently.

Figure 30: Difference in MPD+ rates relative to lawyers

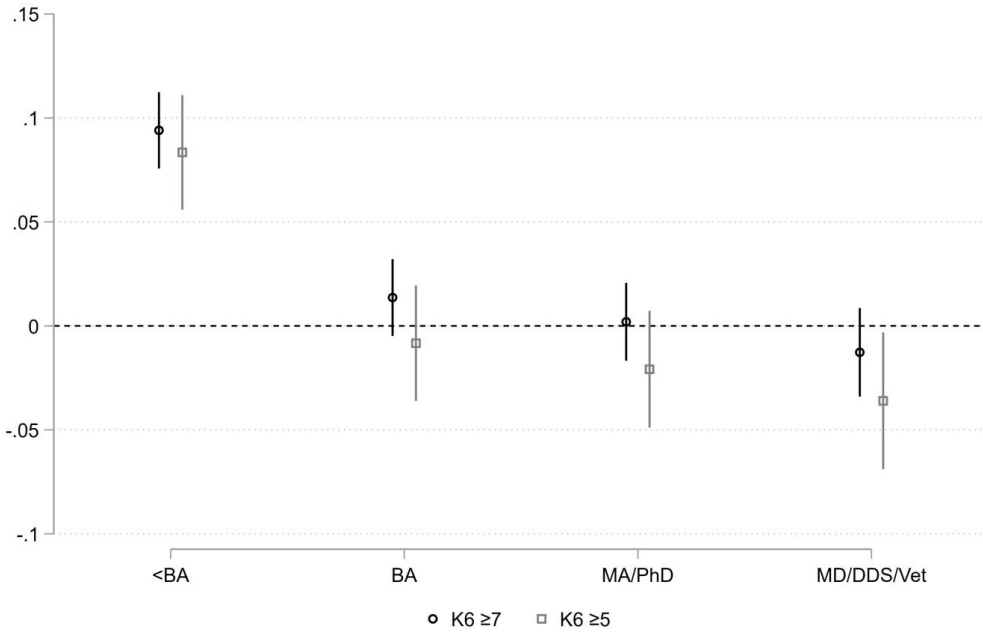


Figure 31: Difference in MPD+ rates relative to lawyers by subgroup, employment status, and demographics

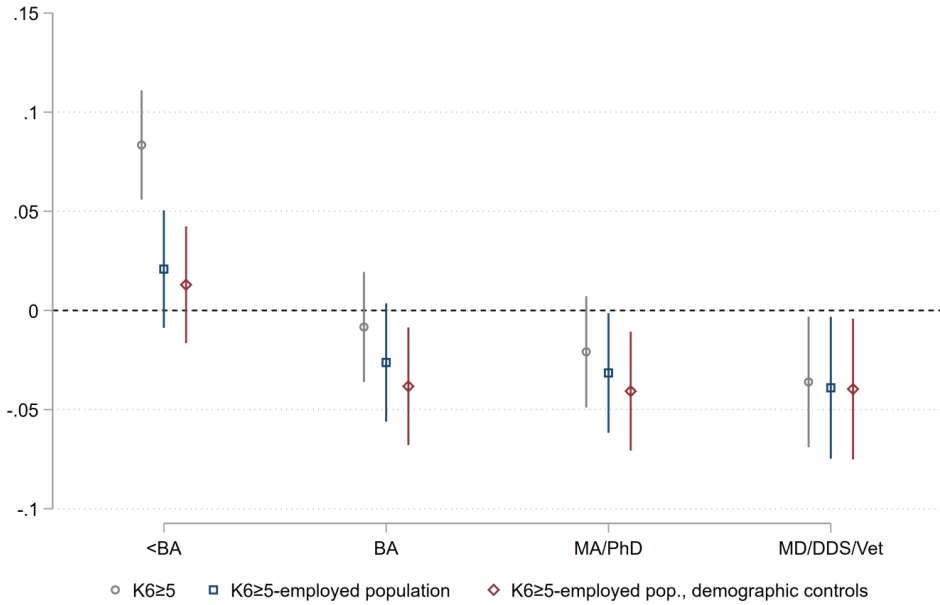
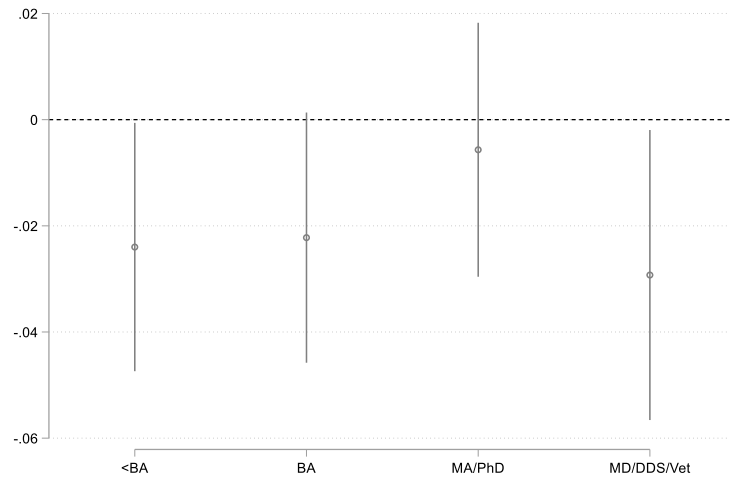


Figure 32: Mental Health Care Usage Relative to Lawyers

Panel A: Saw or talked to a mental health professional in the past year relative to lawyers



Panel B: Needed but could not afford mental care, past year

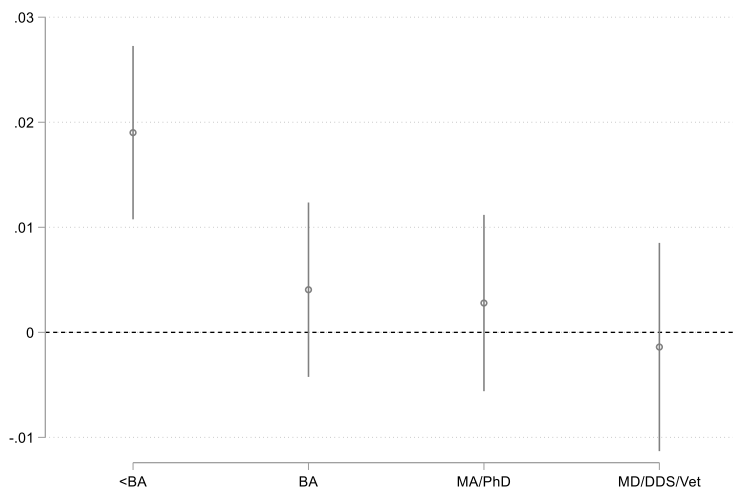
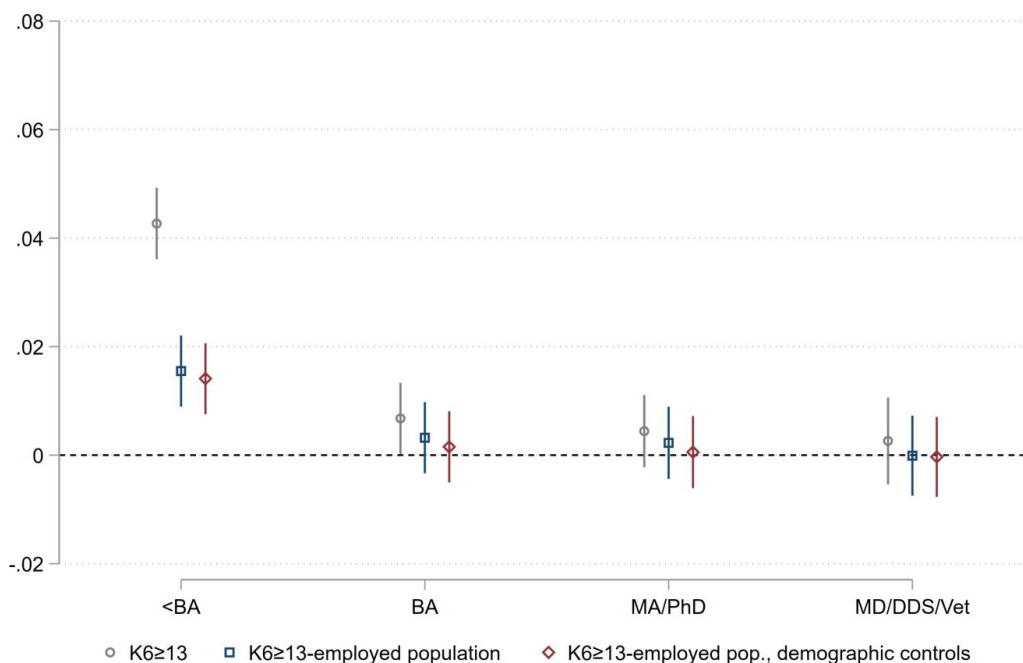




Figure 33: Difference in SPD rates relative to lawyers by subgroup, employment status, and demographics



C. The Impact of Sampling Weights and Nonresponse

LN2021’s primary criticism of previous surveys on lawyer well-being was that they have low response rates, so they are subject to nonresponse bias. Of course, every survey is subject to nonresponse bias to some degree—even national surveys that use sample weights, like the NHIS.

Given different survey designs between the NHIS and other surveys it is hard to say too much about how nonresponse and a lack of weighting in previous surveys would matter. Those who aren’t responding to a survey conducted by the U.S. Census Bureau might be very different than those not responding to a survey conducted by a state bar association. However, we can provide at least some circumstantial evidence by thinking about how nonresponse and weighting matter in the NHIS.

The following table studies the extent to which nonresponse effects the NHIS for the general population (the first three columns) and for lawyers (the second three columns). We see that, for the general population, weighting lowers the rate of mental distress. The rate of SPD decreases by 0.004 (12%), and MPD+ by .013 (6%). It also reweights towards those who are married and have larger incomes. This suggests that, on average, those with lower mental distress, those who are married, and those who have higher incomes are less likely to respond to the survey. A similar pattern is seen for lawyers, although the story for serious mental distress flips: Now reweighting increases serious mental distress by .002 (30%). While not definitive, the NHIS data suggests that survey nonresponse has some impact on our estimates of mental illness, although the sign of the bias for lawyers in relation to mental health is hard to judge.

*Table 3: Weighting in the NHIS*

	Full Sample			Lawyers		
	Unweighted	Weighted	Pct Dif	Unweighted	Weighted	Pct Dif
<u>Mental health</u>						
Serious MI	0.041	0.037	-0.117	0.005	0.007	0.303
MI k6>=7	0.140	0.128	-0.084	0.071	0.064	-0.097
MI K6>=5	0.214	0.201	-0.062	0.159	0.151	-0.046
No distress	0.450	0.460	0.022	0.409	0.411	0.005
K6	2.751	2.596	-0.056	2.053	1.986	-0.033
<u>Demographics</u>						
Age	45.77	45.38	-0.009	46.77	47.38	0.013
White	0.760	0.790	0.039	0.870	0.889	0.022
Female	0.541	0.509	-0.060	0.412	0.398	-0.036
Married	0.495	0.607	0.226	0.603	0.724	0.201
Income>100K	0.205	0.267	0.303	0.721	0.753	0.045

*Appendix Table 2: Lawyer Specific Surveys*

<b>Year of Pub.</b>	<b>Sample Source (Survey Name)</b>	<b>Sample Description</b>	<b>Resp Rate</b>	<b>Finding</b>
1987	The Lawyer Stress and Life Style Inventory (LSLSI) was especially developed for this study.	Mail survey of a random sample of 4% (1,076) of FL lawyers (30,128). 310 respondents.	29%	32% of FL lawyers reported feeling depression at least 1/week; 11 % reported 2-3x/week; 4% reported 4-6x/week.
1990	Self-authored questionnaire	Randomized, weighted probability sample of ABA members. The study does not directly report it, but the original sample must be 4,819. 3,248 respondents.	67%	No MI questions. 6% of ABA members reported alcohol problems. 5% reported marijuana use.
1990	Self-authored questionnaire	Mail survey of 11,810 NC lawyers. 2,570 respondents.	22%	24% of NC lawyers reported depression symptoms. 25% reported anxiety symptoms. 17% reported three-to-five drinks per day. Validity of depression and anxiety measures unclear.
1990	The Brief Symptom Inventory (BSI), a short form of the Hopkins Symptom Checklist; the Michigan Alcoholism Screening Test-Revised (MAST); Drug Abuse Screening Test (DAST)	Mail survey of random sample of 10% (1,186) of WA lawyers. 801 respondents. Cross-sectionally measured.	68%	19% of WA lawyers reported depression, a majority experiencing suicidal ideation. 18% reported alcohol-related problems. Less than 1% reported abusing cocaine.
1995	Lawyer Ways of Living and Health Questionnaire; Brief Symptom Inventory (BSI); Michigan Alcoholism Screening Test-Revised (MAST); Positive Feelings Questionnaire; Brief Anger-Aggression Questionnaire (BAAQ); Sarason Social Support Questionnaire	Mail survey of random sample of 10% (1,186) of WA lawyers. 801 respondents. Cross-sectionally measured. (See above.)	68%	24% of WA young (< 2 years of practice) lawyers reported depression symptoms. 30% reported anxiety symptoms. 20% of young male lawyers reported alcohol-related problems.
2000	1999-2000 Associate Survey	Mail survey of 1,000 randomly selected TX lawyers licensed for ten or fewer years and were working in private law firms with more than 10 attorneys. 487 respondents.	49%	"Although respondents may be reluctant to admit substance abuse problems, 203 answers to the question on alcohol consumption indicate a lower level of drinking than reported in other studies. 24 In the 1999-2000 Associate Survey, 2% of the respondents noted that they consume three to five drinks a day, and 6% reported that they consume one to two drinks a day."

2004	The Center for Epidemiological Studies-Depression Scale (CES-D); the Life Orientation Test-Revised (LOT-R); the Work Addiction Risk Test (WART); the Perceived Stress Scale (PSS); and the Alcohol Use Disorders Test (AUDIT)	Mail survey of a random sample of 1,000 NC lawyers. 292 respondents.	29%	27% NC lawyers were depressed. 51% had elevated perceived stress. 6% were abusing alcohol. 18% reported consuming three or four drinks on a typical day of drinking. 11% reported that a relative, friend, or doctor expressed concern about their drinking.
2006	Alabama State Bar Quality of Life Survey	Mail survey of random sample of 4,500 AL lawyers. 1,109 respondents.	22%	26% of AL lawyers reported depression in the last year. 77% reported stress or anxiety in the last year.
2010	The Center for Epidemiological Studies Depression Scale was used to assess depression. The questionnaire included occupational items about workplace and workload, behavioral health questions about alcohol and other drug use, depression, and burnout, along with demographic items.	Mail survey of probability sample of undisclosed number of NC lawyers. 390 respondents.	N/R	10.3% of NC lawyers reported depression. 16% reported current mental health as fair or poor. 12.4% reported taking a prescription for stress or anxiety. 11.4% reported taking a prescription for depression. 44% reported relieving depression or anxiety by drinking or using drugs in a way not prescribed by a physician, including 11% "sometimes" and 4.4% "often or daily."
2011	PTSD symptoms were assessed using the Impact of Events Scale-Revised (IES-R). Depression symptoms were assessed using the Center for Epidemiological Studies Depression Scale (CES-D). Functional impairment levels were measured by the Sheehan Disability Scale (SDS). The Professional Quality of Life Scale Version 5 was used to assess satisfaction and feelings of hopelessness related to work.	Email and online survey of 474 employees of the Wisconsin State Public Defender Office, including 307 attorneys and 167 administrative support staff. 347 responded, including 238 attorneys and 109 administrative support staff.	79%	11% of lawyers met screening criteria for PTSD. 40% met screening criteria for depression. These rates were significantly higher than administrative support staff. 1% of staff met screening criteria for depression. 19% met screening criteria for depression.
2012	PTSD symptoms were assessed using the Impact of Events Scale-Revised (IES-R). Depression symptoms were assessed using the Center for Epidemiological Studies Depression Scale (CES-D). Functional impairment levels were	This was a 10-month follow-up survey of 142 employees of the Wisconsin Public Defender Office, including 107 lawyers.	45%	9% of lawyers met screening criteria for PTSD. 40% met screening criteria for depression.

	measured by the Sheehan Disability Scale (SDS).			
2016	Alcohol Use Disorders Identification Test (AUDIT), Depression Anxiety Scales-21 item version (DASS-21), Drug Abuse Screening Test-10 item version (DSAT).	Email survey of undetermined number of lawyers in 19 states. 15 state bar associations and the 2 largest counties of 1 additional state emailed the survey to their members. 3 additional states posted the recruitment announcement to their bar websites. 12,825 lawyers responded.	N/R	28.3% reported mild-to-severe depression, 19.2% mild-to-severe anxiety, and 23.7% mild-to-severe stress. 18.8% reported moderate-to-severe depression, 18.6% moderate-to-severe anxiety, and 14.9% moderate-to-severe stress. 20.6% reported hazardous, harmful, and potentially alcohol-dependent drinking.
2019	Florida State Bar Association Young Lawyers Division Mental Health & Wellness in the Legal Profession Survey	Email survey of 20,372 Florida Bar Young Lawyers Division members. 1,967 respondents.	10%	52% reported depression, anxiety, or both. 39% reported both depression and anxiety. 19% reported only depression. 4% reported only anxiety. 36% reported being diagnosed with or treated for depression, anxiety, or another mental health concern. Of the 52% who reported depression or anxiety, 67% reported seeing a therapist and 64% seeing a doctor and taking prescribed medications. 39% reported experiencing a work-related traumatic event during your legal career that caused them to subsequently experience prolonged symptoms (lasting a week or more), such as flashbacks, anxiety when triggering events occur (such as a ringing phone or an email), heart palpitations, panic attacks, "and so forth".
2021	Patient Health Questionnaire-9 (PHQ-9); Generalized Anxiety Disorder-7 (GAD-7); Alcohol Use Disorders Identification Test (AUDIT-C); Effort-Reward Imbalance (ERI) Questionnaire; Your Workplace Questionnaire; Work-Family Conflict (WFC) subscale from the short version of the Copenhagen Psychosocial Questionnaire; Perceived Stress Scale.	Email survey of 80,000 randomly sampled CA and DC lawyers. 2,863 respondents.	6%	17.9% reported moderate-to-severe depression. 18.6% reported moderate-to-severe anxiety. 51.3% reported risky drinking. 29.8% reported hazardous drinking.

2023	Patient Health Questionnaire-9 (PHQ-9); Perceived Stress Scale (PSS); Alcoholic Use Disorders Identification Test (AUDIT-C); Drug Abuse Screening Test (DAST); Revised University of California, Los Angeles (UCLA) Loneliness Scale; overcommitment subscale of the Effort-Reward Imbalance (ERI) Questionnaire; Work-Family Conflict (WFC) subscale from the short version of the Copenhagen Psychosocial Questionnaire	Email survey of 80,000 randomly sampled CA and DC lawyers. 1,962 respondents. (See above.)	6%	8.5% reported having suicidal thoughts at least "several days" in the last two weeks.
2021	Patient Health Questionnaire 9 (PHQ-9)	554 lawyers from two western states recruited in three ways: (1) randomly selected from active bar members and emailed; (2) through advertisements in bi-monthly bar journal and at bar conventions; and (3) through invitations for firms to distribute the survey to employees.	N/R	17.5% reported moderate-to-severe depression akin to diagnosis of major depressive disorder. 11.9% reported having suicidal thoughts at least "several days" in the last two weeks.
2023	Satisfaction with Life Scale; Generalized Anxiety Disorder Scale 2 [GAD-2]; (Patient Health Questionnaire-9 [PHQ-9]); Alcohol Use Disorders Identification Test-Consumption [AUDIT-C].	Approximately 58,382 MA lawyers surveyed. 4,450 responded.	7.6%	21% reported depression. 26% reported anxiety. 7% reported suicidal ideation. 42% reported hazardous or unhealthy alcohol use.
2023	90-question well-being survey, including Patient Health Questionnaire 9 (PHQ-9)	Email survey of all NJ bar members, approximately 16,000. 1,643 respondents. Note: Total number of bar members was not reported. It is posted on NJ State Bar website.	10%	23% reported depression. 68% reported anxiety. 56% reported alcohol misuse. 10% reported suicidal ideation.

Appendix Table 3: Occupational Surveys (“Lawyers”)

Year	Sample Source (Survey Name)	Sample Description	Resp. Rate	Finding	Notes
1990	National Institute of Mental Health Diagnostic Interview Schedule, a highly structured interview schedule designed to resemble a typical psychiatric interview and yield diagnoses of mental disorders according to the latest standards of the American Psychiatric Association.	Unknown number surveyed. 11,789 respondents, including 178 lawyers. The data for this study were collected for the Epidemiologic Catchment Area (ECA) Program during the early 1980s. Survey administered to probability samples of about 3,000 at five sites.	N/R	10% of lawyers diagnosed with major depressive disorder, with OR 2.362, and adjusted OR of 3.572, #1 among all occupations. 0% of “health diagnosing, assessment, and treatment occupations” diagnosed with MDD.	178 lawyers.
1992	1988 National Health Interview Survey	43,809 individuals interviewed, including undisclosed number of lawyers	87%	9.42% of lawyers reported alcohol dependence/abuse, vs. 10.59% of labor force and 2.26% of physicians	Est. 112-248 lawyers
1998	1987 National Medical Expenditure Survey; depression scale consisted of five items patterned after the General Mental Health subscale of the Medical Outcomes Study; the health scale consisted of four items, also adapted from the Medical Outcomes Study	8,486 employed persons, including 45 lawyers	72%	No evidence that lawyers were among high-risk occupations with depression. However, the study says that “Occupational differences should be interpreted cautiously since small differences may not be statistically significant.”	45 lawyers.
2007	2002-2004 National Surveys on Drug Use and Health	127,976 interviews of persons aged 18 to 64, including 327 lawyers	90.8%	Alcohol dependence/abuse in past year: 9.7% of lawyers; 4.6% of doctors; 9.2% of total. Heavy drinking past month: 6.5% of lawyers; 2.5% of doctors; 8.8% of total. Illicit drug dependence/abuse in past year: 0.0% of lawyers; 0.8% of doctors; 2.6% of total. Illicit drug use in past month: 4.3% of lawyers; 4.4% of doctors; 8.2% of total.	327 lawyers. Second largest sample of occupational studies. Confirms elevated alcohol misuse and low drug use.

2020	2016 death certificate, coroner reports, law enforcement reports	nearly 38,000 persons of working age, 16-64, from 32 states, including 58 lawyers & judges	N/A	Suicide rates among lawyers and doctors were significantly lower than other occupations and not significantly different than each other. Possibly affected by access to lethal means.	Physicians, 41 deaths, est. pop. 319,000, suicide rate 12.8 (8.6–18.5); Lawyers, 58 deaths, est. pop. 366,000, suicide rate 15.8 (11.4–21.6)
2021	2010-2017 National Health Interview Surveys	Interview survey of approximately 180,000 individuals between 25 and 64 or over 64 and currently employed, including about 1,000 lawyers	67%-82%	6% of lawyers reported moderate to severe mental illness, not significantly more than other groups and significantly less than the general public. 11% of lawyers reported excessive drinking, more than twice the rate among doctors and dentists.	~1,000 lawyers.
2023	1981-2017 data from Panel Study on Income Dynamics, measuring new cases of distress by Kessler 6 with a cutoff of 13	24,789 individuals, including an undisclosed number of lawyers (PSID says “56 in the legal profession”)	N/R	Age-adjusted discrete-time hazard analysis found that lawyers were at low risk for serious mental illness with substantial impairment, OR 0.12 (0.02-0.88), $p = 0.0367$ .	56 lawyers. Only looking for SMI. Our data indicates that MMI is more prevalent among lawyers.



Appendix Table 4: Occupational Group Surveys (“Legal Occupations”)

Year	Sample Source (Survey Name)	Sample Description	Resp. Rate	Finding
2018	2012 and 2015 coroner reports	26,778, including 141 "legal" employees	N/A	No major differences between lawyers and doctors. Among males, both professions ranked between 8 and 14. Among females, both professions ranked between 3 and 6.
2006	2002-2003 National Survey of Workplace Health and Safety	2,829 noninstitutionalized employed persons between 18 and 65, including an undisclosed number of "legal" employees	N/R	"Illicit drug use and impairment in the workplace was higher among the legal occupations," with ORs ranging from 2.24 to 6.84. Overall prevalence was 14.1% among employed adults, so this is a minimum of 31.6% among lawyers.
2017	2013-2014 U.S. Behavioral Risk Factor Surveillance System	Annual telephone survey administered to 155,839 employed adults from 17 states, including an undisclosed number of "legal" employees	37.8% (cellphones)- 49.6% (landlines)	Legal occupations are among the top four occupation groups for frequent mental distress. Top 2 for self-rated fair or poor health; top 4 for frequent physical distress and frequent activity limitation; top 7 for frequent overall unhealthy days.
2018	2003 and 2015 waves of Panel Study on Income Dynamics and matched with the 2017 Occupational Information Network, a database of occupations and their characteristics	12,423 individuals, including 80 "legal" employees	N/R	Lawyers had the #1 OR among all occupations for moderate mental illness, defined as K6 5+—the only OR above 1.5. Lawyers did not have one of the top ORs for binge drinking, heavy drinking, or serious mental illness.