UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

DR. DAVID SCHWARTZ, Plaintiff, v. THE CITY OF NEW YORK and LORELEI SALAS, in her official capacity as Commissioner of the Department of Consumer Affairs, Defendants.	Case No.: 1:19-CV-463 **EXPERT DECLARATION OF LAWRENCE S. MAYER, M.D., Ph.D., IN SUPPORT OF PLAINTIFF DR. DAVID SCHWARTZ'S MOTION FOR PRELIMINARY INJUNCTION**

I, Dr. Lawrence S. Mayer, declare as follows:

Qualifications

1. While retained as a private consultant in this matter, I serve as a Visiting Fellow in Integrative Knowledge and Human Flourishing at Harvard University.

2. I have been asked to offer my opinions on the state of science on the issues of sexual orientation and gender identity with a focus on the published quantitative literature.

3. I am a research physician, epidemiologist, and biostatistician; one of the few physicians with training in psychiatry, clinical epidemiology and a Ph.D. in Mathematics and Statistics.

4. I have served as a tenured (and nontenured) professor at major universities for over four decades. My professorial (and research) appointments have been at Arizona State University, Johns Hopkins University, The Ohio State University, The Mayo Clinic, Princeton University, Stanford University, University of Michigan, University of Pennsylvania, and Virginia Tech. I am currently a Visiting Fellow at Harvard University where my research focuses

on the integration of the quantitative methods of the social sciences with more classical biostatistical and epidemiological methods.

5. My appointments have been in 23 disciplines including statistics, biostatistics, epidemiology, public health, mental health, social methodology, psychiatry, mathematics, sociology, political science, economics, and biomedical informatics. My primary focus has been on the intersection among biostatistics, epidemiology, medicine, and public health.

6. I have reviewed as a biostatistician, epidemiologist, physician, and social methodologist hundreds of manuscripts submitted for publication to many of the major medical, statistical, and public health journals, including *The New England Journal of Medicine*, *The Journal of the American Statistical Association*, and *The American Journal of Public Health*. I have served as an associate editor for *The Journal of the American Statistical Association* and *Social Methods and Research*. I am a founding member of the editorial board of the journal *Social Methodology* and the Sage series on Social Methodology.

7. I am a Fellow of the Royal Statistical Society.

8. I attach as Exhibit A a copy of my current Professional Vita, which lists my education, appointments, publications, research, and other professional experience.

9. In this declaration, I present, in the headings marked with Roman numerals or capital letters, certain of my opinions about the current state of scientific knowledge about health, mental health, fluidity, and therapies in populations that are identified by their sexual orientation or gender identities. For each of these opinions, I then provide a non-exhaustive list of citations to studies published in science journals or other respected sources that support and provide in part the basis of my opinion, quoting or summarizing relevant findings of each article.

10. I begin by noting that the concepts at the core of these discussions—sexual orientation and gender identity—are complex, not well defined, and disputed. Widely cited researchers in the field, Lisa Diamond and Clifford Rosky, state that "sexual orientation is not easy to define or measure. This ambiguity poses a problem for research.... Sexual orientation is a multifaceted phenomenon, incorporating sexual attractions, sexual arousal, sexual fantasy, sexual behavior, and sexual identity.... Different researchers have emphasized different facets, and the facets themselves do not always coincide." Lisa M. Diamond & Clifford J. Rosky, *Scrutinizing Immutability: Research on Sexual Orientation & U.S. Legal Advocacy for Sexual Minorities*, 53:4-5 J. OF SEX RESEARCH 363, 365 (2016).

11. Similarly, there is no precise, unambiguous, let alone agreed upon, definition of "gender" or "gender identity."

I. Numerous published studies suggest that sexual orientation is fluid across the life span; for many persons, their orientation is not immutable.

1. Lisa M. Diamond & Clifford J. Rosky, *Scrutinizing Immutability: Research on Sexual Orientation & U.S. Legal Advocacy for Sexual Minorities*, 53:4-5 J. OF SEX RESEARCH 363, 365 (2016):

a) Studies "unequivocally demonstrate that same-sex and other-sex attractions do change over time in some individuals. The degree of change is difficult to reliably estimate, given differences in study measures, but the occurrence of change is indisputable." (368-67)

b) "[A]rguments based on the immutability of sexual orientation are unscientific, given that scientific research does not indicate that sexual orientation is uniformly biologically determined at birth or that patterns of same-sex and other-sex attractions remain fixed over the life course." (364)

c) These authors summarized findings from the Ott et al. Growing Up Today Study (GUTS) (2011) (http://nhs2survey.org/gutswordpress/) that involved more than 13,000 youth this way: "Of the 7.5% of men and 8.7% of women who chose a nonheterosexual descriptor at ages 18 to 21, 43% of the men and 46% of the women chose a different category by age 23. Among the same-sex-attracted youth who changed, 57% of the men's changes and 62% of the women's changes involved switching to completely heterosexual." (369-70)

d) These authors also summarized findings from the Dunedin Multidisciplinary Health and Development Study (DMHD) (available at https://dunedinstudy.otago.ac.nz/) this way: "[R]ates of change do not appear to decline as respondents get older. Rates of change in attractions among same-sex-attracted men ranged from 26% to 45%, and rates of change in same-sex-attracted women ranged from 55% to 60%. Among the same-sex attracted men reporting change, between 67% and 100% of the changes were toward heterosexuality, and this also was true for 83% to 91% of the same-sex-attracted women undergoing changes." (368)

e) These authors summarized findings from the National Survey of Midlife Development in the United States (MIDUS I and II) this way: "[F]ew respondents (less than 1% among both men and women) described themselves as homosexual or bisexual. Yet among this group 64% of the women and 26% of the men identified their sexual orientation differently 10 years later (Mock & Eibach, 2012). Half of the men's changes and 55% of the women's changes involved switching to heterosexuality." (370) (Information about this survey is available at http://midus.wisc.edu/scopeofstudy.php, as is access to the many papers published from the survey.)

2. Deborah L. Tolman et al, eds., *APA Handbook of Sexuality & Psychology*, (vol. 1, American Psychological Association, 2014) (available at http://dx.doi.org/10.1037/14193-000):

a) "...research on sexual minorities has long documented that many recall having undergone notable shifts in their patterns of sexual attractions, behaviors, or identities over time." (636)

b) "Although change in adolescence and emerging adulthood is understandable, change in adulthood contradicts the prevailing view of consistency in sexual orientation." (562)

c) "Over the course of life, individuals experience the following: (a) changes or fluctuations in sexual attractions, behaviors, and romantic partnerships;..." (619)

3. Ritch C. Savin-Williams & Geoffrey L. Ream, *Prevalence and Stability of Sexual Orientation Components During Adolescence and Young Adulthood*, 36 ARCHIVES OF SEXUAL BEHAVIOR 385 (2007):

a) "Migration over time among sexual orientation components was in both directions, from opposite-sex attraction and behavior to same-sex attraction and behavior and vice versa." (385)

b) "Evidence to support sexual orientation stability among nonheterosexuals is surprisingly meager. . . . Support for the instability of sexual orientation is far more prevalent—in both adult and adolescent populations. Among the 14% of Dutch adult males who reported ever having physical attraction to other males, about half noted that these feelings disappeared later in life (Sandfort, 1997)." (386)

c) "Although most (97%) heterosexuals maintained their heterosexual identity, nonheterosexuals frequently changed their identity label over the life course: 39% of gay males, 65% of lesbians, 66% of male bisexuals, and 77% of female bisexuals. The dimensional assessments of fantasy, attraction, and behavior reflected similar trends. Although roughly 90% of heterosexually identified individuals had none or one point changes during their lifetime, the majority of gay (52%), lesbian (80%), and bisexual (90%) identified individuals had multiple changes on the dimensional variables." (387)

d) "The data … highlight the high proportion of participants with same- and both-sex attraction and behavior that migrated into opposite-sex [heterosexual] categories between waves." (388)

e) "All attraction categories other than opposite-sex were associated with lower likelihood of stability over time. That is, individuals reporting any same-sex attractions were more likely to report subsequent shifts in their attractions than were individuals without any same-sex attractions." (389)

4. Steven E. Mock & Richard P. Eibach, *Stability and Change in Sexual Orientation Identity Over a 10-year Period in Adulthood*, 41 ARCHIVES OF SEXUAL BEHAVIOR 642, 646 (2011) (summarizing findings from National Survey of Midlife Development in the United States (MIDUS I and II) this way: "Overall, 55 (2.15%) participants reported a different sexual orientation identity at Wave 2 compared to Wave 1. Among women, 1.36% with a heterosexual identity changed, 63.3% with a homosexual identity changed, and 64.71% with a bisexual

identity changed. Among men, 0.78% with a heterosexual identity changed, 9.52% with a homosexual identity changed, and 47.06% with a bisexual identity changed.").

5. American Psychiatric Association, "Position Statement on Issues Related to Homosexuality" (2013) (Glassgold Decl. Ex. D) (acknowledging non-fixity in sexual orientation: "The American Psychiatric Association believes that the causes of sexual orientation (whether homosexual or heterosexual) are not known at this time and likely are multifactorial including biological and behavioral roots which may vary between different individuals and may even vary over time.").

II. The studies available, although limited, indicate that for a significant number of individuals who suffer gender dysphoria, most of whom identify as transgender, gender identity is not immutable.

1. American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders* 455 (5th Ed., 2013) ("Rates of persistence of gender dysphoria from childhood into adolescence or adulthood vary. In natal males, persistence has ranged from 2.2% to 30.0%. In natal females, persistence has ranged from 12% to 50%." Quoted in Kenneth J. Zucker, *The Myth of Persistence: Response to "A Critical Commentary on Follow-up Studies and 'Desistance' Theories About Transgender & Gender Nonconforming Children" by Temple Newhook et al.*, 19:2 INT'L J. OF TRANSGENDERISM 1, 3 (2018).

2. Wylie C. Hembree et al., "*Endocrine Treatment of Transsexual Persons: An Endocrine Society Clinical Practice Guideline*," 94:9 J. CLIN. ENDOCRINOL. METAB. 3132, 3132-33 (2009) (Glassgold Decl., Ex. T at 3132-33) ("Given the high rate of remission of GID [gender identity disorder] after the onset of puberty, we recommend against a complete social role change and hormone treatment in prepubertal children with GID.").

3. Stephen B. Levine, *Informed Consent for Transgendered Patients*, J. OF SEX & MARITAL THERAPY 7 (2018), DOI: 10.1080/0092623X.2018.1518885 ("It is important for parents to be told that the majority of cross-gender identified

children desist from their current identities after puberty (Steensma, McGuire, Kreukels, Beekman, & Cohen-Kettenis, 2013; Zucker, 2018).").

4. Stephen B. Levine, *Ethical Concerns About Emerging Treatment Paradigms for Gender Dysphoria*, J. OF SEX & MARITAL THERAPY 10 (2017), DOI: 10.1080/0092623X.2017.1309482 ("A surgical group reported on a series of seven male-to-female patients requesting surgery to transform their surgically constructed female genitalia back to their original male form (Djordjevic, Bizic, Duisin, Bouman, & Buncamper, 2016).").

III. Multiple studies report that voluntary therapeutic counsel is effective for some persons who are highly motivated to change sexual thoughts, attractions, and behavior.

1. American Psychological Association, "Report of the Am. Psychol. Ass'n Task Force on Appropriate Therapeutic Responses to Sexual Orientation," (2009) (Haldeman Decl., Ex. B).

> a) "Former participants in SOCE reported diverse evaluations of their experiences: Some individuals perceived that they had benefited from SOCE, . . . [These] individuals reported that SOCE was helpful—for example, it helped them live in a manner consistent with their faith. Some individuals described finding a sense of community through religious SOCE and valued having others with whom they could identify." (3)
>
> b) "For instance, participants reporting beneficial effects in some studies perceived changes to their sexuality, such as in their sexual orientation, gender identity, sexual behavior, sexual orientation identity…." (49)

2. Stanton L. Jones & Mark A. Yarhouse, *A Longitudinal Study of Attempted Religiously Mediated Sexual Orientation Change*, 37 J. OF SEX & MARITAL THERAPY 404 (2011) (23% of study participants experienced substantial reduction in homosexual attraction and substantial increase in heterosexual attraction and functioning. An additional 30% of participants experienced that homosexual attraction remained present only incidentally or in a way that did not seem to bring about distress, allowing them to live contentedly without overt sexual activity.).

3. Robert L. Spitzer, *Can Some Gay Men and Lesbians Change Their Sexual Orientation? 200 Participants Reporting a Change from Homosexual to Heterosexual Orientation*, 32:5 ARCHIVES OF SEXUAL BEHAVIOR 403, 413 (2003) ("This study indicates that some gay men and lesbians, following reparative therapy, report that they have made major changes from a predominantly homosexual orientation to a predominantly heterosexual orientation. The changes following reparative therapy were not limited to sexual behavior and sexual orientation self-identity. The changes encompassed sexual attraction, arousal, fantasy, yearning, and being bothered by homosexual feelings. The changes encompassed the core aspects of sexual orientation. Even participants who only made a limited change nevertheless regarded the therapy as extremely beneficial.").

4. Elan Y. Karten & Jay C. Wade, *Sexual Orientation Change Efforts in Men: A Client Perspective*, 18:1 The J. of Men's Studies 84 (2010).

a) Participants "experienced a decrease in homosexual feelings and behavior, an increase in heterosexual feelings and behavior, and a positive change in psychological functioning." (97)

b) "Participants perceived the most helpful interventions to be a men's weekend/retreat, a psychologist, and a mentoring relationship." (98)

IV. Available science does not permit a conclusion that voluntary therapeutic conversations aiming for change in sexual attraction, thoughts, behavior, or orientation, or of gender-identity, are harmful to most patients.

1. 2009 APA Task Force Report (Haldeman Decl., Ex. B).

   a) "Although the recent studies do not provide valid causal evidence of the efficacy of SOCE or of its harm, some recent studies document that there are people who perceive that they have been harmed through SOCE… just as other recent studies document that there are people who perceive that they have benefited from it. . . . . We conclude that there is a dearth of scientifically sound research on the safety of SOCE. Early and recent research studies provide no clear indication of the prevalence of harmful outcomes among people who have undergone efforts to change their sexual orientation or the frequency of occurrence of harm because no study to date of adequate scientific rigor has been explicitly designed to do so. Thus, we cannot conclude how likely it is that harm will occur from SOCE." (42)

   b) "[I]t is still unclear which techniques or methods may or may not be harmful." (91)

2. Jones & Yarhouse (2011) ("The attempt to change sexual orientation did not appear to be harmful on average for these participants. The only statistically significant trends that emerged…indicated improving psychological symptoms."). (424)

V. Available science does not permit a conclusion that voluntary therapeutic conversations aiming for change in sexual attraction, thoughts, behavior, or orientation, or of gender-identity, are ineffective.

1. 2009 APA Task Force Report (Haldeman Decl., Ex. B).

   a) "We found that nonaversive and recent approaches to SOCE have not been rigorously evaluated. Given the limited amount of methodologically sound research, we cannot draw a conclusion regarding whether recent forms of SOCE are or are not effective." (43)

   b) "We thus concluded that there is little in the way of credible evidence that could clarify whether SOCE does or does not work in changing same-sex sexual attractions." (28)

   c) "There are no studies of adequate scientific rigor to conclude whether or not recent SOCE do or do not work to change a person's sexual orientation." (120)

VI. Anecdotal stories, no matter how tragic, of suicide, depression, or distress in homosexual or transgender individuals who have undergone any particular treatment or therapy, do not constitute scientific evidence for causation or even correlation. This is because persons identifying as lesbian, gay, bisexual, and transgender exhibit substantially higher rates of suicidal ideation and attempts, and worse mental and physical health, than the general population.

A. Suicidal ideation, attempts, and completed suicide are more prevalent in the population of people who identify as homosexual or transgender.

1. John R. Blosnich et al., *Suicidality & Sexual Orientation: Characteristics of Symptom Severity, Disclosure, & Timing Across the Life Course*, 86:1 AM. J. ORTHOPSYCHIATRY 69, 69 (2016) ("Sexual minority men and women were more likely than heterosexual men and women to have disclosed suicide attempts to a medical professional.").

2. Ron de Graaf et al., *Suicidality & Sexual Orientation: Differences Between Men & Women in a General Population-Based Sample from the Netherlands*, 35:3 ARCHIVES OF SEXUAL BEHAVIOR 253, 253 (2006) ("This study suggests that even in a country with a comparatively tolerant climate regarding homosexuality, homosexual men were at much higher risk for suicidality than heterosexual men.").

3. Daniel M. Fergusson et al., *Is Sexual Orientation Related to Mental Health Problems & Suicidality in Young People?*, 56 ARCHIVES OF GEN. PSYCHIATRY 876, 876-80 (1999) (found that non-heterosexual young people were at increased risk for suicidal behavior and ideation, major depression, generalized anxiety disorder, conduct disorder, tobacco dependence, and multiple disorders compared to the heterosexual subsample).

4. Robin M. Mathy et al., *The Ass'n Between Relationship Markers of Sexual Orientation & Suicide*, 46 SOCIAL PSYCHIATRY AND PSYCHIATRIC EPIDEMIOLOGY 111, 111 (2011) ("The estimated age-adjusted suicide mortality risk for [men in same-sex registered domestic partnerships] was nearly eight times greater than for men with positive histories of heterosexual marriage and nearly twice as high for men who had never married.").

5. Ann P. Haas et al., *Suicide & Suicide Risk in Lesbian, Gay, Bisexual, & Transgender Populations: Rev. & Recommendations*, 58 J. OF HOMOSEXUALITY 10 (2011).

a) Population-based surveys of U.S. adolescents since the 1990s indicate that suicide attempts are "two to seven times" more likely in "high school students who identify as LGB." (17)

b) Studies cited in the report show that lesbian or bisexual women are likelier, on average, to experience suicidal ideation, that gay or bisexual men are more likely, on average, to attempt suicide, and that lifetime suicide attempts among non-heterosexuals are greater in men than in women. (15-19)

6. Martin Plöderl et al., *Suicide Risk and Sexual Orientation: A Critical Rev.*, 42 ARCHIVES OF SEXUAL BEHAVIOR 715, 722 (2013).

a) Among psychiatric patients, homosexual or bisexual populations are over-represented in "serious suicide attempts." (722)

b) In nonclinical population-based studies, non-heterosexual status is found to be one of the strongest predictors of suicide attempts. (722)

c) "The most exhaustive collation of published and unpublished international studies on the association of suicide attempts and sexual orientation with different methodologies has produced a very consistent picture: nearly all studies found increased incidences of self-reported suicide attempts among sexual minorities." (723)

d) "Given the evidence presented, sexual minority individuals are at greater risk for suicides and suicide attempts, compared to their heterosexual counterparts." (724)

7. Mathy et al. (2011) (After reviewing the impact of sexual orientation on suicide rates in Denmark during the first twelve years after the legalization of same-sex registered domestic partnerships (RDPs), this study found that the estimated age-adjusted suicide rate for men in same-sex registered domestic partnerships was nearly eight times the rate for men in heterosexual marriages, and nearly twice the rate for men who had never married.). (112)

8. Martin Plöderl et al., *The Relation Between Sexual Orientation & Suicide Attempts in Austria*, 39 ARCHIVES OF SEXUAL BEHAVIOR 1403, 1408 (2010) ("In

our study, increased rates of suicide attempts among sexual minority individuals occurred for all dimensions of sexual orientation: sexual behavior, sexual fantasies, partner preference, and self-identification.").

9. Haas et al. (2011) (reporting and discussing "a dramatic increased risk of completed suicide" in transgender populations) (26-28).

10. Jean M. Dixen et al., *Psychosocial Characteristics of Applicants Evaluated for Surgical Gender Reassignment*, 13:3 ARCHIVES OF SEXUAL BEHAVIOR 269, 272 (1984) (A clinical sample of transgender individuals requesting sex-reassignment surgery showed suicide attempt rates between 19% and 25%.).

11. Robin M. Mathy, *Transgender Identity & Suicidality in a Nonclinical Sample: Sexual Orientation, Psychiatric History, & Compulsive Behaviors*, 14:4 J. OF PSYCHOL. & HUMAN SEXUALITY 47, 47-65 (2003) (A large national survey in 2000 found transgender persons to report higher rates of suicide attempts than any group except lesbians.).

12. Anne P. Haas et al., *Suicide Attempts Among Transgender & Gender Non-Conforming Adults: Findings of the National Transgender Discrimination Survey*, Am. Found. for Suicide Prevention & the Williams Institute (2014).

a) "The prevalence of suicide attempts among respondents to the National Transgender Discrimination Survey (NTDS), conducted by the National Gay and Lesbian Task Force and National Center for Transgender Equality, is 41 percent, which vastly exceeds the 4.6 percent of the overall U.S. population who report a lifetime suicide attempt, and is also higher than the 10 – 20 percent of lesbian, gay and bisexual adults who report ever attempting suicide." (2)

b) The authors note that "respondents who said they had received transition- related health care or wanted to have it someday were more likely to report having attempted suicide than those who said they did not want it." (8)

13. Kristen Clements-Nolle et al., *HIV Prevalence, Risk Behaviors, Health Care Use, & Mental Health Status of Transgender Persons: Implications for Public Health Intervention*, 91:6 AM. J. OF PUBLIC HEALTH 915 (2001).

a) Of 392 male-to-female and 123 female-to-male transgender persons in study, 62% of the male-to-female and 55% of the female-to-male transgender persons were depressed at the time of the study, and 32% of each population had attempted suicide. (919)

b) "The prevalence of suicide attempts among male-to-female and female-to-male transgender persons in our study was much higher than that found in US household probability samples and a population-based sample of adult men reporting same-sex partners." (919)

14. Centers for Disease Control & Prevention, "Youth Risk Behavior Survey: Data Summary & Trends Report 2007-2017," CDC (2018), https://www.cdc.gov/healthyyouth/data/yrbs/pdf/trendsreport.pdf.

a) "Significantly higher percentages of lesbian, gay, or bisexual students (47.7%) and students not sure of their sexual identity (31.8%) seriously considered attempting suicide than heterosexual students (13.3%)." (84)

b) "Significantly higher percentages of lesbian, gay, or bisexual students (38.0%) and students not sure of their sexual identity (25.6%) made a suicide plan than heterosexual students (10.4%)." (85)

c) "Significantly higher percentages of lesbian, gay, or bisexual students (23.0%) and students not sure of their sexual identity (14.3%) attempted suicide than heterosexual students (5.4%)." (86)

d) "Significantly higher percentages of lesbian, gay, or bisexual students (7.5%) and students not sure of their sexual identity (5.6%) were injured in a suicide attempt than heterosexual students (1.7%)." (87)

B. <u>Mental health problems other than suicidal ideation, attempts, and completions are more prevalent in the population of people who identify as homosexual.</u>

1. 2018 CDC Report ("Significantly higher percentages of lesbian, gay, or bisexual students (63.0%) and students not sure of their sexual identity (46.4%) experienced persistent feelings of sadness or hopelessness than heterosexual students (27.5%).") (83).

2. Theo G. Sandfort et al., *Same-Sex Sexual Behavior & Psychiatric Disorders*, 48 ARCHIVES OF GEN. PSYCHIATRY 85, 85 (2001) (discussing findings from the 2001 Netherlands Mental Health Survey and Incidence Study (NEMESIS): "…people with same-sex sexual behavior are at greater risk for psychiatric disorders.").

3. D. Bradford Reich et al., *Sexual Orientation & Relationship Choice in Borderline Personality Disorder Over Ten Years of Prospective Follow-up*, 22:6 J. OF PERSONALITY DISORDERS 564, 564 (2008) (Study showed that individuals with borderline personality disorders "were significantly more likely than comparison subjects [with other personality disorders] to report homosexual or bisexual orientation and intimate same-sex relationships.").

4. Michael King et al., *A Systematic Rev. of Mental Disorder, Suicide, & Deliberate Self Harm in Lesbian, Gay, & Bisexual People*, 8:70 BMC PSYCHIATRY 1, 1 (2008) (Non-heterosexual people face a "higher risk of mental disorder, suicidal ideation, substance misuse, and deliberate self-harm than heterosexual people," with 2.47 times higher lifetime risk than heterosexuals for suicide attempts; twice as likely to experience depression over a 12-month period; and approximately 1.5 times as likely to experience anxiety disorders.).

5. Wendy B. Bostwick et al., *Dimensions of Sexual Orientation & the Prevalence of Mood & Anxiety Disorders in the United States*, 100:3 AM. J. PUB. HEALTH 468, 471 (2010) (Lesbian and bisexual women reported higher rates of anxiety disorder; also of lifetime mood disorders than women who identified as heterosexual: 44% in lesbians, 58.7% in bisexuals, compared to 30.5% in heterosexuals. Gay men had more than double the prevalence of lifetime mood disorders compared to men who identified as heterosexual (42.3% vs. 19.8%), and more than double the rate of any lifetime anxiety disorder (41.2% vs. 18.6%).).

6. Susan D. Cochran & Vickie M. Mays, *Physical Health Complaints Among Lesbians, Gay Men, & Bisexual & Homosexually Experienced Heterosexual Individuals: Results from the Ca. Quality of Life Survey*, 97:11 AM. J. PUB.

HEALTH 2048, 2048 (2007) (Non-heterosexual populations are at a higher risk of physical health problems in addition to mental health problems.).

7. Christine E. Grella et al., *Influence of Gender, Sexual Orientation, & Need on Treatment Utilization for Substance Use & Mental Disorders: Findings from the Ca. Quality of Life Survey*, 9:52 BMC PSYCHIATRY 1, 1 (2008) (More than twice as many LGB individuals, compared to heterosexuals, had reported receiving treatment in the past twelve months (48.5% compared to 22.5%).).

8. Theo G.M. Sandfort et al., *Sexual Orientation & Mental & Physical Health Status: Findings From a Dutch Population Survey*, 96:6 AM. J. PUB. HEALTH 1119, 1119 (2006) (Non-heterosexual respondents reported experiencing higher numbers of acute mental health problems and reported worse general mental health than heterosexuals; lesbian and gay respondents were more likely to report chronic health problems.).

9. Haas et al. (2011) (Combined worldwide studies showed up to 50% higher rates of mental disorders and substance abuse among persons self-identifying in surveys as lesbian, gay, or bisexual; lesbian or bisexual women showed higher levels of substance abuse, while gay or bisexual men had higher rates of depression and panic disorder.).

C. Mental health problems other than suicidal ideation, attempts, and completions are more prevalent in the population of people who identify as transgender.

1. Riittakerttu Kaltiala-Heino et al., *Two Years of Gender Identity Service for Minors: Overrepresentation of Natal Girls with Severe Problems in Adolescent Development*, 9:9 CHILD & ADOLESCENT PSYCHIATRY & MENTAL HEALTH 1, 5 (2015) (Reports 2015 Finland gender identity service statistics: 75% of adolescents assessed "had been or were currently undergoing child and adolescent psychiatric treatment for reasons other than gender dysphoria.").

2. Lisa Littman, *Parent Reports of Adolescents & Young Adults Perceived to Show Signs of a Rapid Onset of Gender Dysphoria*, PLOS ONE at 13 (2018) (Parental survey concerning adolescents exhibiting Rapid Onset Gender

Dysphoria reported that 62.5% of gender dysphoric adolescents had "a psychiatric disorder or neurodevelopmental disability preceding the onset of gender dysphoria.").

3. Azadeh Mazaheri Meybodi et al., *Psychiatric Axis I Comorbidities among Patients with Gender Dysphoria*, 2014 PSYCHIATRY J. 1 (2014).

a) "Eighty-three patients requesting sex reassignment surgery (SRS) were recruited and assessed … for DSM-IV Axis I disorders:" 62.7% had one or more. 33.7% had major depressive disorder, 20.5% had specific phobia, and 15.7% had adjustment disorder (the three most common). (1)

b) "Consistent with most earlier researches, the majority of patients with gender dysphoria had psychiatric Axis I comorbidity." (1)

4. Gunter Heylens et al., *Psychiatric Characteristics in Transsexual Individuals: Multicentre Study in Four European Countries*, 204 THE BRITISH JOURNAL OF PSYCHIATRY 151, 151 (2014) (In a sample from four nations in Europe: 38% with GID have a current DSM-IV-TR Axis I Diagnosis, mostly affective and anxiety disorders. Nearly 70% had "a current and lifetime diagnosis.").

5. Sari L. Reisner *et al*., *Mental Health of Transgender Youth in Care at an Adolescent Urban Community Health Center: A Matched Retrospective Cohort Study*, 56:3 J. OF ADOLESCENT HEALTH 274, 279 (2015) (Transgender youth had an elevated risk of depression (50.6% vs. 20.6%) and anxiety (26.7% vs. 10.0%); a higher risk of suicidal ideation (31.1% vs. 11.1%), suicide attempts (17.2% vs. 6.1%), and self-harm without lethal intent (16.7% vs. 4.4%) relative to the matched controls; and a significantly greater proportion of transgender youth accessed inpatient mental health care (22.8% vs. 11.1%) and outpatient mental health care (45.6% vs. 16.1%) services.).

VII. Multiple authors have reported data that show that the majority of individuals seeking counseling or therapy to change sexual orientation are motivated by religious convictions.

1. 2009 APA Task Force Report (Haldeman Decl., Ex. B).

   a) "From our survey of recent publications and research, most SOCE currently seem directed to those holding conservative religious and political beliefs, and recent research on SOCE includes almost exclusively individuals who have strong religious beliefs." (25)

   b) "The recent literature on those who participate in SOCE identifies a population of predominantly White men who are strongly religious and participate in conservative faiths." (52)

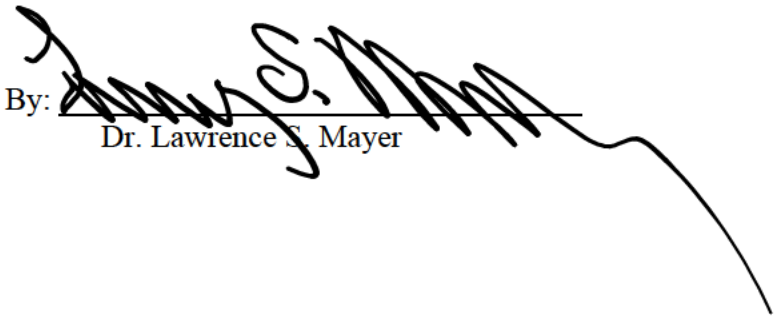
2. Diamond & Rosky (2016) ("[T]he majority of individuals seeking to change their sexual orientation report doing so for religious reasons rather than to escape discrimination.") (6).

3. American Counseling Association, "Ethical issues related to conversion or reparative therapy," ACA (Jan. 16, 2013) (Glassgold Decl., Ex. O at 4) ("Conversion therapy as a practice is a religious, not psychologically-based, practice…. The treatment may include techniques based in Christian faith-based methods….").

4. Douglas C. Haldeman, *The Pseudo-science of Sexual Orientation Conversion Therapy*, 4:1 ANGLES 1, 2 (1999) ("Historically, most conversion therapy occurred in religious settings….").

5. Douglas C. Haldeman, *When Sexual & Religious Orientation Collide: Considerations in Working with Conflicted Same-Sex Attracted Male Clients*, 32 THE COUNSELING PSYCHOLOGIST 691, 693 (2004) ("[T]he vast majority of those seeking sexual orientation change because of internal conflict have strong religious affiliations.").

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct and that this declaration was executed on April 11, 2019.

By: 
Dr. Lawrence S. Mayer