WELL-BEING FOR STUDENTS WITH MINORITIZED IDENTITIES

NICOLE BROCATO, FINN LUEBBER,
MORGAN TAYLOR, ÁNGEL DE JESUS GONZALEZ,
HOLLIE M. CHESSMAN, AND YITONG ZHAO

ACE® American Council on Education®

WELL-BEING FOR STUDENTS WITH MINORITIZED IDENTITIES

NICOLE BROCATO

FINN LUEBBER

MORGAN TAYLOR

ÁNGEL DE JESUS GONZALEZ

HOLLIE M. CHESSMAN

YITONG ZHAO

CONTENTS

ACKNOWLEDGMENTS

LAND

Both the land presently occupied by Wake Forest University and the land on which its original campus stood served for centuries as a place for exchange and interaction for Indigenous peoples; specifically, Saura, Catawba, Cherokee, and Lumbee inhabited the land of Wake Forest's current location and Shakori, Eno, Sissipahaw, and Occaneechi inhabited that of the original campus location. Today Wake Forest continues to be a place of learning and engagement for Indigenous students, faculty, and staff regionally, nationally, and globally.

IDENTITIES AND PRIVILEGE

The authors of this work hold a range of privileged and minoritized identities. We acknowledge that these identities grant us privileges and biases of which we are not aware because of our races and ethnicities, abilities, religious affiliations, economic statuses, gender identities, and sexual orientations. We have attempted in this brief to amplify the voices of scholars and practitioners with minoritized identities. We look forward to feedback, dialog, and ongoing opportunities for growth, and we are grateful for your time and consideration.

EXECUTIVE SUMMARY

Over the past decade, mental health and well-being have increasingly become major priorities on college campuses as concerns related to student mental health have escalated. In a 2019 survey of college and university presidents, 81 percent of respondents stated that student mental health on campus had become more of a priority compared with three years prior (Chessman and Taylor 2019). This paper uses data from Wake Forest University's spring 2019 Wellbeing Assessment to unpack the differences in the subjective well-being of students with minoritized[1] identities. We found that undergraduate students with minoritized racial and ethnic, gender, and sexual orientation identities have substantially lower subjective well-being[2] levels than their peers with privileged identities.[3] As students reported holding more minoritized identities, their subjective well-being levels decreased.

Despite a strong commitment to supporting student success, inequitable learning environments remain in higher education for students with minoritized identities. For example, students with minoritized racial and ethnic identities have lower completion rates than White students (Causey et al. 2020; Espinosa et al. 2019), and LGBTQ+[4] students are more likely to fail classes or drop out of college than their cisgender[5] and heterosexual peers (Greathouse et al. 2018).

Students are most academically successful when their learning environments support their welfare (Astin 1993; Hurtado 2001; Kuh 1996; Schreiner 2015; Tinto 2004), which is why colleges and universities devote 13 to 20 percent of their budgets to student and academic services (NCES 2020). Unfortunately, students with minoritized racial and ethnic identities face a myriad of environmental barriers to their well-being, including racism, unfair hiring practices, biased grading, microaggressions, and many more (Harper and Hurtado 2007; Sue et al. 2007). LGBTQ+ students often have to navigate a "traditionally heterogendered institution" that has been built by and for cisgender and heterosexual people (Preston and Hoffman 2015; Pryor 2018). The implications of this are reflected in structural issues for LGBTQ+ students, including the lack of gender inclusive bathrooms, chosen name and pronouns on institutional documents and classroom rosters, mental and physical health services with LGBTQ+-specific resources, and representation among faculty and staff. These systemic barriers not only diminish students' well-being, but they also interfere with students' ability to focus on academic achievement (Verschelden 2017; Verschelden and Bhargava 2019).

Creating more equitable and inclusive higher education environments may improve well-being and academic outcomes for students with minoritized identities. If well-being programs, policies, and practices at our nation's postsecondary institutions are to live up to their promise of improving student outcomes, they must shift from a mindset of accommodation and inclusion to one of fundamentally diverse design. Those diverse designs must also account for postsecondary institutions' diversity in their support capacities and capabilities—not all institutions necessarily can or should provide identical suites of supports. This report concludes with example models and frameworks to help institutional leaders create equitable and inclusive well-being supports tailored to the needs of their institution and the students they serve.

---

1   We utilize the term *minoritized* to bring attention to the fact that one is not born into a minority status, but rather oppressed into such via systemic structures of racism (Harper 2012). Identities that have been minoritized include race and ethnicity, gender identity, sexual orientation, first-generation status, physical ability, learning ability, and many others.

2   In this report, we primarily use the spelling *well-being*, but retain *wellbeing* when it refers to Wake Forest University's Wellbeing Assessment. Both spellings are correct and have extensive histories.

3   We use the term *privileged* to describe identities that are not minoritized.

4   We use the term *LGBTQ+* to refer to all minoritized gender identities and sexual orientations. Although the term LGBTQ is often intended to represent all these identities, the term itself only refers to the identities of lesbian, gay, bisexual, transgender, and queer. Many other gender identities and sexual orientations exist, such as gender-fluid, questioning, nonbinary, intersex, and more.

5   People who identify as cisgender are those whose gender identity aligns with the sex they were assigned at birth.

WHY DOES WELL-BEING MATTER?

Supportive Higher Education Environments Create Success

We all want our students to succeed—get good grades; engage with their academic environment; graduate with degrees; and translate their academic successes into rewarding personal, professional, and civic lives. Students are most academically successful when their learning environments support their general welfare (Astin 1993; Hurtado 2001; Kuh 1996; Schreiner 2015; Tinto 2004). Colleges and universities devote substantial resources to creating environments that foster academic and personal success. For example, student life offices support students' personal and social development. Academic advising and career counseling help students maximize the value of their education. Student health services help students fully engage in learning by caring for their physical and mental health. Teaching and learning centers promote the most effective teaching methods. In the 2018–19 academic year, student support and academic services accounted for 20 percent of the total budget at public two-year institutions, 13 percent of the total budget at public four-year institutions, and 17 percent of the total budget at private nonprofit four-year institutions (NCES 2020).

Well-Being in Higher Education Enriches Current Student-Success Support Practices

To enrich their student-success supports, a number of colleges and universities are using ideas from well-being research and theory. More than the absence of illness, the concept of well-being refers to optimal functioning and experience (Ryan and Deci 2001). The *Inter-association Definition of Well-being* (NIRSA, NASPA, and ACHA 2020) for higher education distills well-being into two types: individual and community. Individual well-being includes three components: how people are thinking and feeling about their lives (subjective well-being); the extent to which people are engaging in active citizenship (civic well-being); and whether people have access to basic needs and human rights like food, shelter, and freedom from discrimination (objective well-being). Community well-being includes two components: first, the extent to which all people are satisfied with their community lives and believe that quality of life is good for all members of the community irrespective of people's identities (subjective community well-being); and second, the extent to which institutions provide healthy and equitable policies, procedures, practices, resources, and cultures that are necessary both for the well-being of the community and for the well-being of individuals (objective community well-being).

Individual and community well-being are interrelated. For instance, student life offices promote civic well-being by supporting leadership skills and goal attainment. At the same time, many students enjoy the activities provided by student life offices, which promotes students' subjective well-being. Within community well-being, policies and cultures of anti-racism can support objective well-being in students with minoritized identities by making them feel safer. As students feel safer, they are better able to access and engage in other resources—like student activities and active classroom participation—that promote their civic and subjective well-being along with their academic success.

Because well-being integrates and encompasses many aspects of student-success supports, well-being can be seen as a higher purpose of education (Harward 2016), meaning that it cannot be solely a student's responsibility. Higher education must instead consider all the impacts—good, bad, and otherwise—that institutional environments have on student well-being and student success.

Higher Education Is Failing Students with Minoritized Identities

Systemic inequities in higher education continue to perpetuate equity gaps for students with minoritized identities. This report focuses specifically on minoritized racial and ethnic, gender, and sexual orientation identities. While these identities do not represent all minoritized groups, the data presented in this report can serve as a starting point for understanding the unique needs of students with minoritized identities.

RACE AND ETHNICITY

Between 2000 and 2018, the proportion of undergraduate students who identified with minoritized racial and ethnic identities grew from 29.2 percent to 44.8 percent (NCES 2019). Despite this encouraging increase in enrollment, great differences emerge when examining completion rates across racial and ethnic groups, with higher shares of Asian and White students completing a college credential within six years of first enrolling than Black and Latino students. Among the cohort of students who first enrolled at a public four-year institution in 2014, 80 percent of Asian students and 73 percent of White students completed a credential within six years, compared with 59 percent of Latino and 50 percent of Black students. A similar pattern emerged among students who first enrolled at a public two-year institution, with 51 percent of Asian and 49 percent of White students completing within six years, compared with 36 percent of Latino and 28 percent of Black students (Causey et al. 2020). Projections show that the racial and ethnic diversity of students enrolling in higher education will continue (Hussar and Bailey 2020), making it more important than ever that the field pay attention to and work toward closing these racial equity gaps in postsecondary education.

SEXUAL ORIENTATION AND GENDER

Students with minoritized sexual orientation and gender identities face similar challenges to their academic outcomes. LGBTQ+ students must manage unsafe campus climates that detract from their mental health and other foundational well-being needs (Gortmaker and Brown 2006). Many LGBTQ+ students must negotiate differing sets of biases across academic and home environments (Duran 2019), complicating their efforts to maintain their well-being and focus on their academics. As a result of these many stressors, even though students who identify as LGBTQ+ are more cognitively engaged in academics than their cisgender and heterosexual peers, they are approximately 25 percent more likely to fail a class and nearly twice as likely to drop out of college (Greathouse et al. 2018). Closing equity gaps for LGBTQ+ students will require institutions to address the negative stressors that stem from campus environments.

More Equitable Well-Being Supports May Yield More Equitable Academic Outcomes

Institutions can support student well-being in two ways: by increasing individual students' well-being knowledge, skills, and abilities; and by improving students' environments. Programming that improves students' well-being knowledge, skills, and abilities may improve academic outcomes such as grades, retention, and completion (Chow 2007; Chow 2010; Foster et al. 2014; Kennett and Reed 2009; Schreiner 2015). Many of the burgeoning well-being programs in higher education focus on improving students' knowledge, skills, and abilities, giving students invaluable learning and personal growth opportunities.

A critical step toward improving students' environments is addressing exclusionary policies, racism, homophobia, transphobia, and other systemic barriers. These systemic barriers not only diminish students' well-being, they interfere with students' ability to focus on academic achievement (Verschelden 2017; Verschelden and Bhargava 2019). As community organizer Nakita Valerio noted, "Shouting 'self-care' at people who actually need community care is how we fail people" (2019). Said differently, well-being programs, policies, and practices must take into account the material manifestation of systemic oppression on students' well-being and address the systems that promote inequities. The onus should be on the institutions, not only on the students, to create environments that foster well-being.

NATIONAL TRENDS IN UNDERGRADUATE STUDENT WELL-BEING

Examining national trends in student well-being can help us create better student-success supports. In this brief, we focus on subjective well-being as it was measured in Wake Forest University's 2019 Wellbeing Assessment (Brocato, Ni, and Hix 2020), a comprehensive assessment of student well-being that measures subjective, objective, and civic well-being. Subjective well-being is the extent to which people: (a) experience positive emotion, (b) experience a lack of negative emotion, and (c) think their lives are good (Diener 2000).

Wellbeing Assessment

Between February and May of 2019, 11,921 undergraduate students from 28 colleges and universities across the U.S. participated in Wake Forest University's Wellbeing Assessment. In this report, we measure subjective well-being using seven dimensions; three of those dimensions measure positive thoughts and feelings (happiness, life satisfaction, self-esteem) and four dimensions capture negative thoughts and feelings (depression, anxiety, social anxiety, loneliness).[6]

We present the data from the seven dimensions of subjective well-being as a single well-being summary score with an average value of 50 points.[7] Scores above 50 are considered above average, and scores below 50 are considered below average. These scores are presented relative to the average value of 50, not as a percentage of a whole. This distinction between presenting scores as relative averages rather than percentages of a whole is important because we often are presented with data in percentages. For example, 31 percent of bachelor's degrees were earned by students of color, or 74 percent of undergraduates attend a public institution. When considering a score, it is more useful to work with an average and report data relative to that average so that we can evaluate the magnitude of differences between groups. Knowing groups' subjective well-being scores relative to each other lets us prioritize student-success supports for students facing the most inequitable outcomes.

Race and Ethnicity

In the Wellbeing Assessment, students self-identified their race and ethnicity by first reporting whether they identified as being of Hispanic or Latino ethnicity. They next reported their identification with the racial identities of American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, or White (see Figure 1).

---

6   For more information on the questions included in the survey, please see Appendix A.

7   For detailed information about the data prepared and analyzed in this brief, as well as the research design of the Wellbeing Assessment, please see Appendix B.

Figure 1: Racial and ethnic identities of students who completed the Wellbeing Assessment
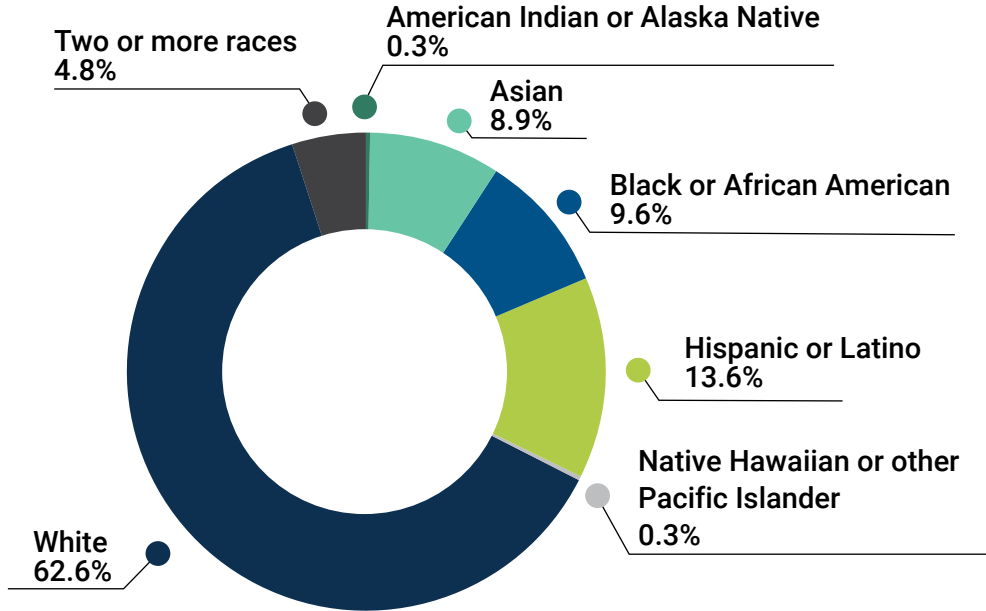
Notes: Total may add to more than 100 percent due to rounding. | The total number of individuals included in this analysis is 11,530. A total of 391 students who completed the Wellbeing Assessment did not report their racial and ethnic identity. Proportions are calculated based upon the total number of individuals who reported their race and ethnicity on the Wellbeing Assessment.

Looking at the data by race and ethnicity reveals nearly identical levels of above-average subjective well-being for students who identified as Black or African American, Native Hawaiian or other Pacific Islander, or White. The remaining groups—American Indian or Alaska Native, Asian, Hispanic or Latino, and students of two or more races—presented with lower-than-average subjective well-being levels. Students who identified with two or more racial identities reported the lowest levels of subjective well-being (see Figure 2).

Figure 2: Average subjective well-being scores across racial and ethnic identities
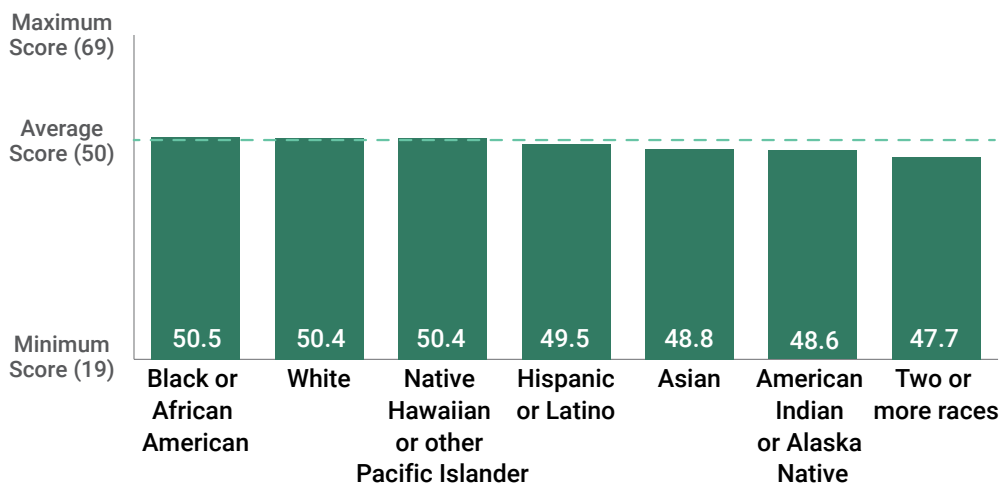
EXAMPLES OF CONTRIBUTING ENVIRONMENTAL FACTORS

Students with minoritized racial and ethnic identities face a myriad of environmental barriers to their well-being, including racism, unfair hiring practices, biased grading, microaggressions, and many more (Harper and Hurtado 2007; Sue et al. 2007). Mental health counseling is often suggested as a means to help students cope with these stressors. However, students with minoritized racial or ethnic identities face barriers to seeking mental health care, such as the perceived and actual cultural competence of counseling centers, weeks-long waitlists to access student counseling, and cultural stigma around mental health and mental health care (CCMH 2021).

Among the many factors that affect students' well-being are environmental cues that signal exclusion and inequality. For example, faculty and staff members with racially and ethnically minoritized identities are less likely to be well-represented or selected for promotion (Perna 2001; Perna et al. 2007), a signal that students with these identities are less respected and less likely to succeed. Compared with White students, those with minoritized racial and ethnic identities are more likely to leave an academic field due to a lack of connection with similar peers (Rainey et al. 2018). Many diversity initiatives may paradoxically increase exclusion felt by students (Dover, Kaiser, and Major 2020), if they falsely claim a fair environment with no need for improvement or send mixed signals to underrepresented groups that they lack competence. Authority figures' ineffective handling of incidents on campus can signal racial inequality and worsen the well-being of people with minoritized identities (Chavez et al. 2019).

Gender Identity

Gender identity refers to the gender that people authentically identify with; it is not an indicator of biological sex. The Wellbeing Assessment measured gender by asking students which best described them: female, male, or other (see Figure 3).[8] Because we asked about students' transgender identities in a separate question, we cannot assume all the female or male students in the sample were cisgender.
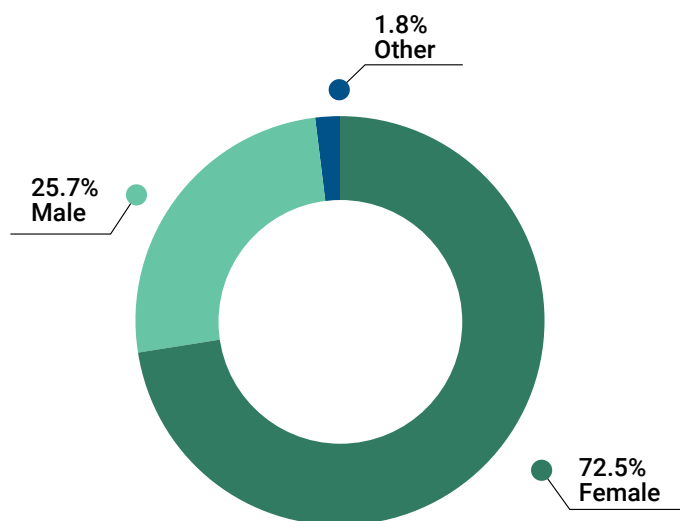
Figure 3: Gender identities of students who completed the Wellbeing Assessment

1.8% Other

25.7% Male

72.5% Female

Note: The total number of individuals included in this analysis is 11,576. A total of 345 students who completed the Wellbeing Assessment did not report their gender identity. Proportions are calculated based upon the total number of individuals who reported their gender on the Wellbeing Assessment.

---

8   There are many other identities not listed in these response options, such as genderqueer, gender-fluid, agender, and bigender, among others (Human Rights Campaign, n.d.).

The overall subjective well-being score for students who identified with a gender other than male or female was substantially lower—nearly a full standard deviation—than the score for students who identify as female or male (see Figure 4). Scores for female- and male-identifying students were nearly equal to each other and were equivalent to the national average.

Figure 4: Average subjective well-being scores across gender identities
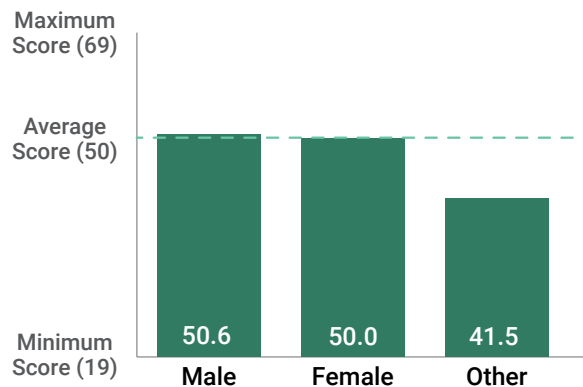
EXAMPLES OF CONTRIBUTING ENVIRONMENTAL FACTORS

Higher education institutions often unconsciously prefer cisgender identities. For example, bathrooms and housing are often binary, thereby making bathrooms unavailable or unsafe for people with nonbinary gender identities. Chronic exposure to discrimination can lead people to develop internalized transphobia, in which people develop discomfort with their own identity and perceive themselves negatively. Internalized transphobia is associated with worsened mental health (Austin and Goodman 2017; Rood et al. 2017).

Within binary gender groups, women are underrepresented in higher education leadership positions (Perna 2001; Rainey et al. 2018). Gender stereotypes frame women as communal instead of competent (Madden 2011), while some working environments lack tasks that require communal traits. Such environmental preferences and selection criteria may discourage women from selecting and persisting in science, technology, engineering, and mathematics (STEM) majors (Su and Rounds 2015) as well as dominance-oriented leadership roles (Johnson et al. 2008).

Transgender

People who identify as transgender have gender identities and/or expressions that differ from cultural expectations based on the sex they were assigned at birth (Human Rights Campaign, n.d.). People can identify as transgender if they identify as gender-fluid (i.e., as not having a fixed gender identity), as having a specific gender identity that is not consistent with their biological sex (i.e., born biologically male, but identifies as female), as nonbinary (i.e., as both or neither male or female), as agender (i.e., as neither male nor female), or as a number of other identities. People can identify as transgender and also identify with any gender: male, female, genderqueer, and more. It is important to note that transgender is also not a sexual orientation. We used a single yes/no item to ask students whether they identified as transgender (see Figure 5). Students who identified as transgender had an overall subjective well-being score that was markedly below that of their cisgender peers, of nearly one-half of one standard deviation (see Figure 6).

Figure 5: Transgender identity of students who completed the Wellbeing Assessment
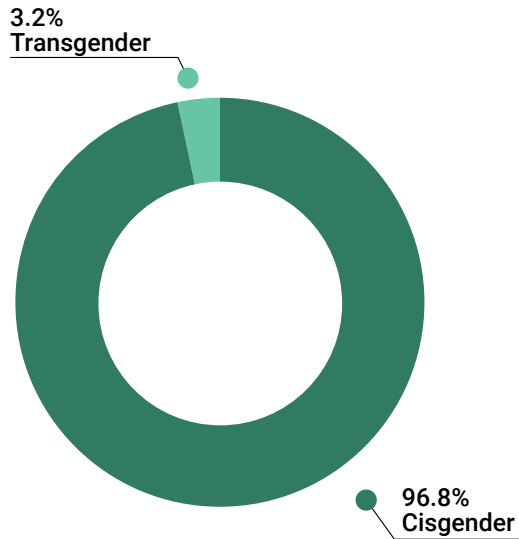
3.2%
Transgender

96.8%
Cisgender

Note: The total number of individuals included in this analysis is 11,562. A total of 359 students who completed the Wellbeing Assessment did not report transgender or cisgender identity. Proportions are calculated based upon the total number of individuals who reported their transgender or cisgender identity on the Wellbeing Assessment.

Figure 6: Average subjective well-being scores by transgender identity

Maximum
Score (69)

Average
Score (50)

Minimum
Score (19)

50.2   44.8
Cisgender Transgender
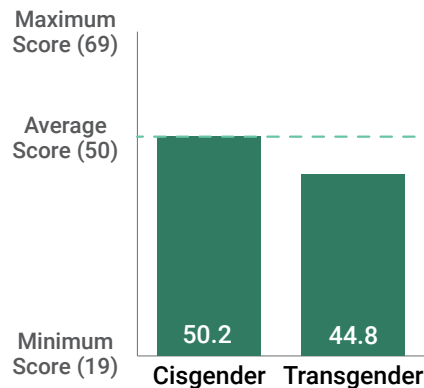
EXAMPLES OF CONTRIBUTING ENVIRONMENTAL FACTORS

Students who identify as transgender face multiple environmental barriers to their well-being. Many institutional policies are developed without the consideration of transgender students' needs. For example, transgender students—like nonbinary gender identity students—lack access to basic necessities, such as adequate housing and bathroom facilities (Seelman 2014). As a result, they may have to navigate a "tradition-ally heterogendered institution" that has been built by and for cisgender and heterosexual people (Preston and Hoffman 2015; Pryor 2018). Institutional policies and intervention programs may merely focus on saving transgender students from discrimination events (Pryor 2018) while neglecting their need for free identity expression (Schneider 2010).

Sexual Orientation

Sexual orientation refers to someone's inherent or immutable emotional, romantic, or sexual attraction to other people. While there are many sexual orientations and a wide range of associated terms, the 2019 Wellbeing Assessment asked people to indicate which of the following options best describe their sexual orientation: asexual, bisexual, gay, heterosexual, lesbian, or other (see Figure 7).

Figure 7: Sexual orientation identities of students who completed the Wellbeing Assessment
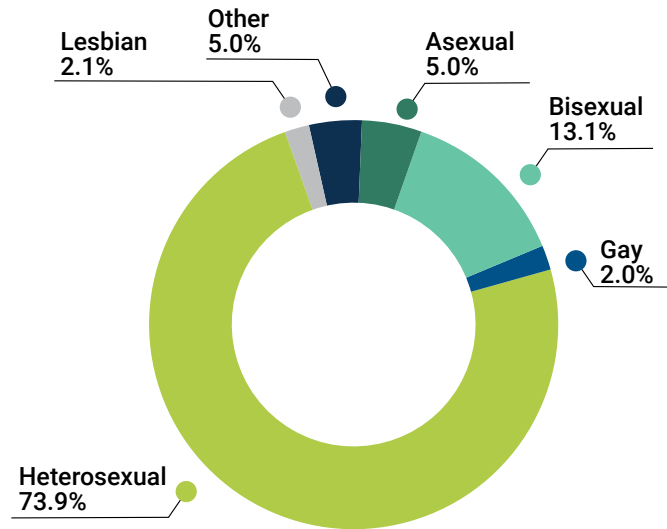
Notes: Total may add to more than 100 percent due to rounding. | The total number of individuals included in this analysis is 11,547. A total of 374 students who completed the Wellbeing Assessment did not report their sexual orientation identity. Proportions are calculated based upon the total number of individuals who reported their sexual orientation on the Wellbeing Assessment.

Students who identified as heterosexual showed the highest level of subjective well-being, and they were the only group with above-average subjective well-being scores (see Figure 8). The other sexual orientation identities were associated with below-average subjective well-being scores. Students who identified as bisexual exhibited the lowest levels of subjective well-being, and their scores were considerably lower—about three-quarters of one standard deviation—than the scores of students who identify as heterosexual.

Figure 8: Average subjective well-being scores across sexual orientation identities
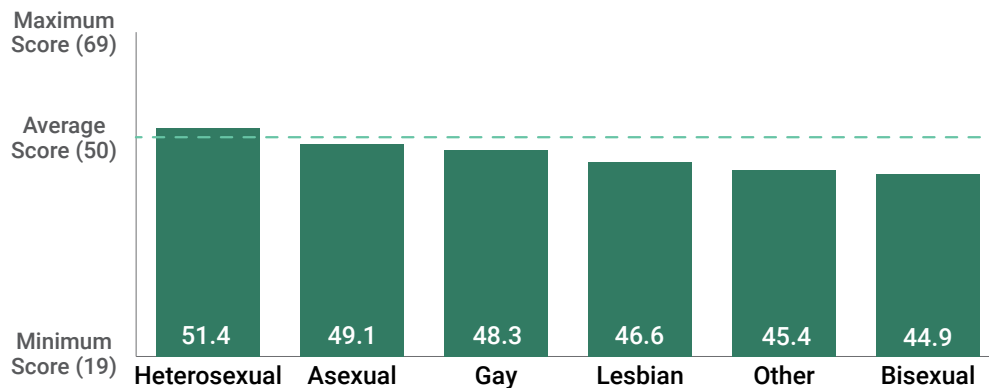
EXAMPLES OF CONTRIBUTING ENVIRONMENTAL FACTORS

As with the other identities examined so far, decreased well-being is a function of institutions' environments and not simply a function of students' coping skills, emotion dysregulation, or other factors internal to students. For example, internalized homophobia (i.e., believing that a heterosexual orientation is the only correct orientation) can be fostered by a socially repressive and hetero-sexist environment. Internalized homophobia can also lead to higher levels of anxiety and depression in people who identify as lesbian and gay (Lorenzi et al. 2015; Renn 2010). External discrimination and victimization also increase the risk of gay, lesbian, and bisexual students developing depressive and post-traumatic symptoms (Mustanski, Andrews, and Puckett 2016). Academic environments with high-quality interactions between students and faculty and staff with minoritized sexual orientations can ameliorate a perceived hostile campus climate (Garvey and Kurotsuchi Inkelas 2012). Student affairs practitioners can ensure that their programming includes inclusive activities and curricula (Hughes and Hurtado 2018).

Well-Being at the Intersections

The term *intersectionality*, originally developed to describe the experiences of Black women, describes the ways in which people experience layered and compounded oppressive experiences within structures due to having multiple, systemically marginalized identities (Crenshaw 1989; Collins 2019). For this report, we simply counted the number of intersectional identities students reported: a minoritized racial and ethnic identity, a gender identity other than male or female, identification as transgender, or a non-heterosexual sexual orientation. Students with none of these identities received an intersectionality count of zero, while students with all of these identities received a count of four. In cases where students skipped questions, they were treated as not having a minoritized identity for that question. In these data, nearly 50 percent of students reported holding at least one minoritized identity (see Figure 9).

Figure 9: Number of minoritized identities for students who completed the Wellbeing Assessment

3 identities
1.2%

4 identities
0.3%

2 identities
10.8%

0 identities
47.7%
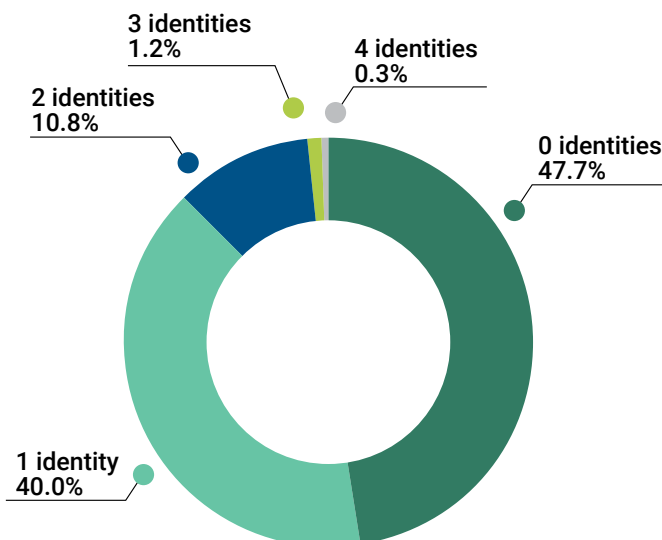
1 identity
40.0%

Note: This analysis is based on the responses of all 11,921 students who completed the Wellbeing Assessment.

Students' overall subjective well-being levels declined as their number of minoritized identities increased (see Figure 10). Students who reported having no minoritized identities had slightly above-average subjective well-being scores. Students who reported three or four minoritized identities had much lower-than-average subjective well-being scores, with subjective well-being levels being nearly one full standard deviation lower than students with no minoritized identities.

Figure 10: Average subjective well-being scores across number of minoritized identities

Maximum Score (69)					
Average Score (50)					
	51.8	49.1	46.5	42.0	41.7
Minimum Score (19)	0	1	2	3	4
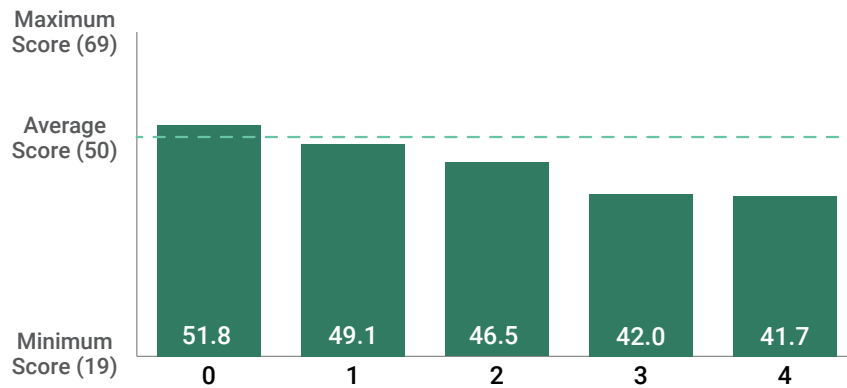
EXAMPLES OF CONTRIBUTING ENVIRONMENTAL FACTORS

The higher education environment may create more stressors for people with multiple minoritized identities than for those with one minoritized identity (Museus and Griffin 2011). For example, some negative stereotypes (e.g., about academic abilities, competence) apply to a specific gender group within a minoritized racial identity (e.g., Black women and Asian women) (Settles 2006; Buchanan et al. 2018). Besides this example in which race and gender intersect, another example is the "white-centricness" and racial segregation in some LGBTQ+ communities and student organizations (Duran, Pope, and Jones 2020). People with multiple past and current identities (e.g., multicultural immigrants, interracial individuals) may encounter external pressure that questions or denies their identities, leading to worse well-being (Cheryan and Monin 2005).

IMPROVING SUBJECTIVE WELL-BEING ON YOUR CAMPUS

Institutions have an important role to play in the support of student well-being. This section offers a potential strategy and framework that may help leaders more effectively address the subjective well-being of minoritized students on campus. We focus on assessment, which can help institutions chart their path forward to support students, and existing frameworks from authors who specialize in higher education well-being and diversity, equity, and inclusion. Well-being programs, policies, and practices throughout higher education must shift from a mindset of accommodation and inclusion to a fundamentally intersectional perspective (Annamma, Jackson, and Morrison 2017). An approach based only on accommodation and inclusion implies that there are unified, majority-approved practices that merely adjust to people the majority considers "other."

Assessment: A Strategy to Identify Your Institution's Path Forward

As this brief has shown, campus leaders should not rely on data in the aggregate to accurately capture the well-being of their student population. Data need to be disaggregated by race, ethnicity, gender identity, and sexual orientation, among other characteristics, so that campus leaders can have an accurate picture of the subjective well-being of all students. It is also important to note that, in the wake of COVID-19, campuses cannot rely on pre–COVID-19 well-being assessment data to accurately capture current subjective well-being levels on campus (American Council on Education 2020). For example, recent data collected during the pandemic point to a decline in student psychological well-being relative to fall 2019 (Healthy Minds Network and ACHA 2020).

Assessment is essential to establish a subjective well-being baseline of the student population, and more specifically, of the subjective well-being of students with minoritized identities. Before introducing new well-being resources, programs, or services on campus, institutions should establish an understanding of this baseline in order to comprehend the efficacy of these newly introduced well-being supports, something that is especially important in the wake of the pandemic. For example, over half the presidents (52 percent) in an April 2021 survey indicated they had increased their budget to support student mental health on campus, with close to half (48 percent) of those increasing their budget by 6 percent or more (Taylor et al. 2021). Tracking subjective well-being levels before and after these investments is a good way for institutional leaders to understand the potential return on investment.

There are a host of well-being assessments available to campuses, which range in length, topics covered, costs, and audience (e.g., graduate students, undergraduate students). The following is a brief description of three comprehensive and readily available assessments; information on additional assessments and tools can be found in Appendix C of this report.

AMERICAN COLLEGE HEALTH ASSOCIATION'S NATIONAL COLLEGE HEALTH ASSESSMENT

The American College Health Association's (ACHA) National College Health Assessment (NCHA) is a nationally recognized research survey that helps institutions collect information about their undergraduate and graduate students' physical and emotional health, habits, behaviors, and perceptions (ACHA 2021). Survey results capture self-reported student data on well-being, alcohol, tobacco, and other drug use, along with topics like personal safety and violence, nutrition, food and housing insecurity, mental health, and several

others. The tool also includes questions on experiences with discrimination, microaggressions, and feelings of belonging. Information pertaining to COVID-19 and its impact on students has been collected since late spring 2020.

HEALTHY MINDS STUDY

The Healthy Minds Study (HMS) is a survey-based study assessing mental health, health service utilization, and related factors among college and university student populations. HMS is one of the only annual surveys of college and university populations that focuses exclusively on mental health and related factors, allowing for substantial detail in this area. The survey gathers data on a variety of domains connected to mental health, including mental health status, access and barriers to services, utilization of services, social environment, academic environment, academic performance, and health behaviors (e.g., sleep and substance use). The tool uses clinically validated measures to assess issues such as depression, anxiety, and eating disorders, among others. It also asks questions about student's experiences with discrimination and their sense of belonging. The study has a special emphasis on understanding service utilization and help-seeking behavior, including factors such as stigma and knowledge, as well as the role of peers and other potential gatekeepers (Healthy Minds Network, n.d.).

WAKE FOREST WELLBEING ASSESSMENT

The Wellbeing Collaborative at Wake Forest distributes the Wellbeing Assessment to help campuses design and develop "targeted effective, and evidence-based programming to support student wellbeing" (Wake Forest University, n.d.). This tool evaluates core well-being dimensions like subjective well-being, belonging, and meaning and purpose, as well as factors that contribute to students' well-being such as access to care; freedom from discrimination; and students' well-being knowledge, skills, and abilities. The Wellbeing Assessment focuses on thriving and provides a strengths-based evaluation of student well-being and contributing socio-ecological factors.

These assessments are just three examples of tools that institutions can use to gather information on campus well-being and factors related to campus climate. Institutions working with limited budgets may want to examine their data from HERI's CIRP Freshman Survey, National Study of Student Engagement (NSSE), Community College Survey of Student Engagement (CCSSE), or college senior surveys, which include questions that generally capture students' well-being. Appendix C includes a list of several surveys that campus leaders can review to determine which tool may be the best for their student population.

Frameworks to Guide Well-Being Support

Just as students vary in their well-being needs, institutions vary in their capacities and priorities for supporting student well-being. There are several frameworks and models available that allow institutional leaders to interpret and tailor to their campus' unique needs and values. Rather than implementing these models and frameworks in a one-size-fits-all approach, we encourage localized adaptations that consider the unique needs of all identities and intersectionalities. We offer examples of two frameworks below that can help guide institutions in their efforts to address well-being on their campuses.[9]

EQUITY IN MENTAL HEALTH FRAMEWORK

The Equity in Mental Health Framework, coauthored by The Steve Fund and the Jed Foundation (2017), offers 10 recommendations and implementation strategies for campus mental health support and programs specifi-

---

9   Information on additional frameworks can be found in ACE's *Mental Health Task Forces in Higher Education* report (Chessman, Vigil, and Soler 2020, 24).

cally for students of color. Its focus on students with minoritized identities enables the recommendations to be more specific and actionable, and each recommendation comes with to-the-point implementation strategies. While the emphasis is on students of color, the 10 recommendations could be tailored to students with other minoritized identities.

THE EQUITY AND MENTAL HEALTH FRAMEWORK'S 10 RECOMMENDATIONS[10] **ARE:**

1. Identify and promote the mental health and well-being of students of color as a campus-wide priority
2. Engage students to provide guidance and feedback on matters of student mental health and emotional well-being
3. Actively recruit, train and retain a diverse and culturally competent faculty and professional staff
4. Create opportunities to engage around national and international issues/events
5. Create dedicated roles to support well-being and success of students of color
6. Support and promote accessible, safe communication with campus administration and an effective response system
7. Offer a range of supportive programs and services in varied formats
8. Help students learn about programs and services by advertising and promoting through multiple channels
9. Identify and utilize culturally relevant and promising programs and practices, and collect data on effectiveness
10. Participate in resource and information sharing (within and between schools)

An Equity in Mental Health Toolkit is available online for implementation with recommendation-specific suggestions, advice, and resources (The Steve Fund and JED 2017).

OKANAGAN CHARTER

A more general framework for supporting well-being in higher education is the Okanagan Charter (2015), which primarily functions at the institutional level. It advocates for health-promoting colleges and universities by infusing "health into everyday operations, business practices and academic mandates," believing that higher education is ideally suited to advance health through everyday life as well as by participating in global research and collaboration.

The Okanagan Charter has two overarching calls to action: embed health into all aspects of campus culture, across the administration, operations and academic mandates; and lead health promotion action and collaboration locally and globally. Both calls to action include specific methods, and the charter also includes principles to guide institutions as they implement these calls to action. The Charter advocates using "settings and whole system approaches" and "comprehensive and campus-wide approaches." But it also encourages participatory approaches, incorporating the voices of students and other campus stakeholders. The charter builds on the idea of participation in other "key principles for action." It encourages "trans-disciplinary collaborations and cross-sector partnerships" and "research, innovation and evidence-informed action" in order to create and share knowledge and evidence. Finally, it also acknowledges the strengths that are already present on campuses and it encourages an asset-based approach to a campus's health, as well as valuing "local and indigenous communities' contexts and priorities" and our universal right to health.

---

10 This list of recommendations is reprinted with permission from The Steve Fund and JED.

CONCLUSION

Well-being has been important in higher education for many decades and under many names. Well-being can help students achieve their academic goals, and it is dependent upon safe, healthy, and supportive campus environments. Data from Wake Forest University's spring 2019 Wellbeing Assessment showed that students with minoritized identities often had lower levels of subjective well-being than students with traditionally privileged identities. For colleges' and universities' well-being programs, policies, and practices to be effective, they must be developed through an intersectional lens, rather than through one of accommodation and inclusion; a one-size-fits-all approach is unlikely to fit anyone well.

AFTERWORD

When we administered the Wellbeing Assessment in 2019 and began developing this brief, we had no idea that the coronavirus pandemic was imminent. At the time of this brief's publication, the pandemic has damaged our economy, upended our long-standing education practices, and exacerbated systemic inequities. These inequities are showing up during the pandemic as seemingly countless reports of inequitable death rates, unemployment burdens, "essential employee" designations, inequitable vaccine distributions, and other injustices (e.g., Adams-Prassl et al. 2020; Berkhout et al. 2021; Ndugga et al. 2021; Oronce et al. 2020; Wrigley-Field 2020). At the same time that so many people are struggling to keep their lives and their livelihoods, the world's richest citizens have gotten richer, further widening systemic inequities (Berkhout et al. 2021).

The effects of the pandemic on nearly everyone are expected to be profound and long lasting. On an individual level, the prolonged stress and grief associated with the pandemic may lead to sustained mental health challenges, changes to brain structures that regulate mood and memory, and increased rates of post-traumatic stress disorder (Kousoulis et al. 2020). Data from the CDC indicate that roughly 30 percent of individuals who identify as Black or White and more than 40 percent of individuals who identify as Hispanic or Latino and multiracial report anxiety and depressive disorders due to the pandemic. The data also show that roughly one out of four 18- to 24-year-olds seriously considered suicide during the pandemic (Czeisler et al. 2020). These findings have significant implications for our college campuses.

As higher education institutions work to reestablish and redefine the post-pandemic higher education experience, equity in well-being will be more important than ever. Students will bring with them a new range of historical inequities, traumas, and other challenges to their well-being. We cannot expect that students—or anyone—will be able to pull themselves up by their bootstraps or overcome these challenges alone. These challenges have arisen from shortcomings in community structures, and they can only be remedied through compassionate reconsiderations of our community structures to ensure that all people have all forms of well-being.

APPENDIX A: ITEMS USED TO MEASURE SUBJECTIVE WELL-BEING

Over the past two weeks, how often have you experienced any of the following:

HAPPINESS

Feeling cheerful	Not at all	Several days	Half the days	Over half the days	Nearly every day
Being in good spirits	Not at all	Several days	Half the days	Over half the days	Nearly every day
Feeling happy	Not at all	Several days	Half the days	Over half the days	Nearly every day
Feeling satisfied	Not at all	Several days	Half the days	Over half the days	Nearly every day
Feeling full of life	Not at all	Several days	Half the days	Over half the days	Nearly every day

ANXIETY

Feeling nervous, anxious, or on edge	Not at all	Several days	Half the days	Over half the days	Nearly every day
Not being able to stop or control worrying	Not at all	Several days	Half the days	Over half the days	Nearly every day
Being concerned that something bad might happen	Not at all	Several days	Half the days	Over half the days	Nearly every day

DEPRESSION

Feeling depressed	Not at all	Several days	Half the days	Over half the days	Nearly every day
Thinking that others would be better off without you	Not at all	Several days	Half the days	Over half the days	Nearly every day
Feeling like you have let yourself, friends, or family down	Not at all	Several days	Half the days	Over half the days	Nearly every day

LONELINESS

Feeling left out	Not at all	Several days	Half the days	Over half the days	Nearly every day
Feeling isolated from others	Not at all	Several days	Half the days	Over half the days	Nearly every day
Feeling like no one understands you	Not at all	Several days	Half the days	Over half the days	Nearly every day
Feeling excluded	Not at all	Several days	Half the days	Over half the days	Nearly every day

SOCIAL ANXIETY

Feeling an intense and persistent fear of a social situation in which people might judge you	Not at all	Several days	Half the days	Over half the days	Nearly every day
Fearing that you will embarrass yourself	Not at all	Several days	Half the days	Over half the days	Nearly every day
Fearing that people will notice that you are anxious	Not at all	Several days	Half the days	Over half the days	Nearly every day

Please rate how strongly you agree or disagree with the following statements.

LIFE SATISFACTION

So far I have gotten the important things I want in life	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
Overall, I would say that I am satisfied with my life	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
I am satisfied with the direction my life is going	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

SELF-ESTEEM

I really like myself	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
On the whole, I am satisfied with myself	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
I feel that I have a number of good qualities	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

APPENDIX B: SURVEY METHODS

Measure Validation

Research to develop the Wellbeing Assessment began in 2014. The Wellbeing Assessment was developed using an extensive literature review of extant measures and theory, ongoing consultation with substantive experts, and a combination of qualitative studies (i.e., cognitive interviews) and quantitative studies. Prior to the data described in this brief, we[11] tested the Assessment using four rounds of multisite qualitative research, two quantitative studies at Wake Forest University, and two quantitative studies in national samples. The version of the items presented in this paper were tested qualitatively in fall 2018, and quantitatively in a national sample between February and May of 2019. Further details about the development of the Wellbeing Assessment are available on our website (www.WellbeingCollaborative.wfu.edu).

Participation rates. The set of items presented here was included in the Wellbeing Assessment's spring 2019 administration to 28 public and private institutions across the country. Between the months of February and May 2019, 94,819 students were invited to participate; 13,287 (14.01 percent) consented, and the final sample size was 11,921 after removing blank cases and graduate students.

Participating colleges and universities incentivized their own students, and no national incentive was provided. Incentives varied quite a bit across institutions; some provided no incentives, some provided lottery-based incentives to a small number of students for gift cards or services, and some provided small incentives (e.g., a free beverage, "swag") to all participants.

Survey design. The 2019 Assessment administration incorporated a planned missing data design (Graham et al. 2006; Little and Rhemtulla 2013; Raghunathan and Grizzle 1995) to decrease response burden and fatigue and increase item response rate. The planned missing design yielded MCAR (missing completely at random) rates of roughly 33 percent, although there were not missing data at the factor score level. Please update: Unplanned missingness at the item level ranged from 0 percent to 7 percent, and it was treated as MAR (missing at random).

Weights. To improve the data's representativeness of the general population, subjective well-being scores were weighted using the *survey* package in R (Lumley 2004; Lumley 2020) to rake-weight the data to 2018 undergraduate enrollment data from the National Center for Education Statistics. The weight values ranged from 0.52 to 5.97. We trimmed the upper range of the weights to 3.00. The final set of weights ranged from 0.52 to 3.00.

Because this sample is very large, the 95 percent margins of error for most statistics reported for most student groups are very small, between 0.24 (0.5 percent) and 3.8 (8 percent) points.

The mean value for the subjective well-being score and all the well-being dimension scores is 50 points, and the standard deviation is 10 points. The minimum score in the dataset is approximately 19, and the maximum is approximately 65; the range is 46 points.

Item selection and model validation. The original set of available items was larger than the items presented in this brief. We used confirmatory factor analysis (CFA; *lavaan* package; Rosseel 2012) and measurement invariance analyses (across race/ethnicity, gender, and sexual orientation; Mplus version 8.0, Muthén and Muthén 2017; Vandenberg and Lance 2000) to select the subset of items presented in this brief. In the CFA model, standardized factor loadings were at least 0.7 and fit indices met or exceeded standard guidelines (Hu and Bentler 1999; Kenny and McCoach 2003; Yu 2002).

---

11   Throughout Appendix B, "we" refers to the Wellbeing Collaborative at Wake Forest University.

Validity. According to Fornell and Larcker (1981), we evaluated convergent validity using average variance extracted (AVE) with the *matrixpls* (Rönkkö 2020) package in R. We used a variant appropriate for latent factor variances of 1. Values of 0.5 or greater are considered acceptable; values of 0.7 or higher are considered very good. For the current set of items, values exceeded 0.7.

We calculated discriminant validity in two ways. First, we evaluated average variance extracted (as in convergent validity procedures) for each dimension to ensure that it was larger than the correlations between the constructs (Campbell and Fiske 1959). Second, we evaluated heterotrait-monotrait (HTMT) correlation ratios to ensure that they were lower than 0.9 (Teo, Srivastava, and Jiang 2008). Analyses were conducted using the *semTools* (Jorgensen et al. 2021) package in R.

Reliability. We calculated composite reliability using the omega coefficient (Bollen 1980) from the *semTools* (Jorgensen et al. 2021) package in R. Omega reliability values for the factors in this brief ranged from 0.81 to 0.95.

Scoring

The subjective well-being score was derived from a bifactor model that included an omnibus factor for subjective well-being and residual factors for happiness, life satisfaction, self-esteem, anxiety, social anxiety, depression, and loneliness. Analyses were conducted using the *lavaan* (Rosseel 2012) package in R. The subjective well-being factor score was extracted using the regression method.

Margins of Error

We estimated margins of error for the score values as 95 percent confidence intervals against a z-distribution. Although we do not have confirmed population data for all identities included in this brief (i.e., the number of undergraduate students who identify as transgender or non-cisgender), we presumed that all populations were larger than 5,000 and therefore did not apply finite population corrections. Margins of error ranged from less than 1 percent to approximately 4 percent.

APPENDIX C: WELL-BEING ASSESSMENT TOOLS

Below is a sampling of different well-being assessment tools that vary in length, cost, the number of concepts measured, and their mode of delivery.[12]

AMERICAN COLLEGE HEALTH ASSOCIATION NATIONAL COLLEGE HEALTH ASSESSMENT*

https://www.acha.org/NCHA/NCHA_Home

CANADIAN CAMPUS WELLBEING SURVEY

https://www.ccws-becc.ca/

FLOURISHING SCALE

https://eddiener.com/scales/9

HEALTHY MINDS STUDY*

https://healthymindsnetwork.org/hms/

INVENTORY ON THRIVING (CIT & BIT)

https://eddiener.com/scales/12

PERMA PROFILER

https://www.peggykern.org/questionnaires.html

WAKE FOREST WELLBEING ASSESSMENT*

https://wellbeingcollaborative.wfu.edu/the-wellbeing-assessment/

---

12 The authors would like to thank Chris Dawe and Suzy Harrington, whose presentation at the 2021 NASPA Strategies Conferences informed this list (Dawe and Harrington 2021).

*   Additional details about this assessment are included in this report.

REFERENCES

Adams-Prassl, Abi, Teodora Boneva, Marta Golin, and Christopher Rauh. 2020. "Inequality in the Impact of the Coronavirus Shock: Evidence from Real Time Surveys." *Journal of Public Economics* 189 (September). https://doi.org/10.1016/j.jpubeco.2020.104245.

ACHA (American College Health Association). 2021. "American College Health Association National College Health Assessment." Accessed May 24, 2021. https://www.acha.org/NCHA/NCHA_Home.

American Council on Education, ed. 2020. *Mental Health, Higher Education, and COVID-19: Strategies for Leaders to Support Campus Well-Being.* With Active Minds, American College Health Association, Healthy Minds Network, JED Foundation, Mary Christie Foundation, and The Steve Fund. Washington DC: American Council on Education.

Annamma, Subini Ancy, Darrell D. Jackson, and Deb Morrison. 2017. "Conceptualizing Color-Evasiveness: Using Dis/ability Critical Race Theory to Expand a Color-Blind Racial Ideology in Education and Society." *Race Ethnicity and Education* 20, no. 2: 147–162. https://doi.org/10.1080/13613324.2016.1248837.

Astin, Alexander W. 1993. *What Matters in College? Four Critical Years Revisited.* San Francisco: Jossey-Bass.

Austin, Ashley, and Revital Goodman. 2017. "The Impact of Social Connectedness and Internalized Transphobic Stigma on Self-Esteem Among Transgender and Gender Non-Conforming Adults." *Journal of Homosexuality* 64, no. 6: 825–841. https://doi.org/10.1080/00918369.2016.1236587.

Berkhout, Esmé, Nick Galasso, Max Lawson, Pablo Andrés Rivero Morales, Anjela Taneja, and Diego Alejo Vázquez Pimentel. 2021. *The Inequality Virus: Bringing Together a World Torn Apart by Coronavirus Through a Fair, Just, and Sustainable Economy.* Oxford, UK: Oxfam International. https://www.oxfam.org/en/research/inequality-virus.

Bollen, Kenneth A. 1980. "Issues in the Comparative Measurement of Political Democracy." *American Sociological Review* 45, no. 3 (June): 370–390. https://doi.org/10.2307/2095172.

Brocato, Nicole W., Xinyu Ni, and Laura E. Hix. 2020. *Technical Report: Wellbeing Assessment Methods and Psychometric Properties for the Spring 2019 Administration.* Winston-Salem, NC: Wake Forest University. https://wellbeingcollaborative.wfu.edu/the-wellbeing-assessment/technical-reports/.

Buchanan, NiCole T., Isis H. Settles, Ivan H. C. Wu, and Diane S. Hayashino. 2018. "Sexual Harassment, Racial Harassment, and Well-Being Among Asian American Women: An Intersectional Approach." *Women & Therapy* 41 (3-4): 261–280. https://doi.org/10.1080/02703149.2018.1425030.

Campbell, Donald T., and Donald W. Fiske. 1959. "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix." *Psychological Bulletin* 56, no. 2 (March): 81–105. https://doi.apa.org/doi/10.1037/h0046016.

Causey, Jennifer, Faye Huie, Robert Lang, Mikyung Ryu, and Doug Shapiro. 2020. *Completing College: National and State Reports.* Herndon, VA: National Student Clearinghouse Research Center. https://nscresearchcenter.org/wp-content/uploads/Completions_Report_2020.pdf.

CCMH (Center for Collegiate Mental Health). 2021. *2020 Annual Report*. University Park, PA: CCMH, Penn State University. https://ccmh.psu.edu/assets/docs/2020%20CCMH%20Annual%20Report.pdf.

Chavez, Leo R., Belinda Campos, Karina Corona, Daina Sanchez, and Catherine Belyeu Ruiz. 2019. "Words Hurt: Political Rhetoric, Emotions/Affect, and Psychological Well-Being Among Mexican-Origin Youth." *Social Science & Medicine* 228 (May): 240–251. https://doi.org/10.1016/j.socscimed.2019.03.008.

Cheryan, Sapna, and Benoît Monin. 2005. "Where are You *Really* From?: Asian Americans and Identity Denial." *Journal of Personality and Social Psychology* 89, no. 5 (November): 717–730. https://psycnet.apa.org/doi/10.1037/0022-3514.89.5.717.

Chessman, Hollie M., and Morgan Taylor. 2019. "College Student Mental Health and Well-Being: A Survey of Presidents." *Higher Education Today* (blog), American Council on Education. August 12, 2019. https://www.higheredtoday.org/2019/08/12/college-student-mental-health-well-survey-college-presidents/.

Chessman, Hollie M., Darsella Vigil, and Maria Claudia Soler. 2020. *Mental Health Task Forces in Higher Education*. Washington, DC: American Council on Education. https://www.acenet.edu/Documents/Mental-Health-Task-Forces-in-Higher-Education.pdf.

Chow, Henry P.H. 2007. "Psychological Well-Being and Scholastic Achievement Among University Students in a Canadian Prairie City." *Social Psychology of Education* 10, no. 4 (December): 483–493. https://doi.org/10.1007/s11218-007-9026-y.

Chow, Henry P.H. 2010. "Predicting Academic Success and Psychological Wellness in a Sample of Canadian Undergraduate Students." *Electronic Journal of Research in Education Psychology* 8 (2): 473–496. http://dx.doi.org/10.25115/ejrep.v8i21.1382.

Collins, Patricia Hill. 2019. *Intersectionality as Critical Social Theory*. Durham, NC: Duke University Press.

Crenshaw, Kimberlé. 1989. "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory, and Antiracist Politics." *University of Chicago Legal Forum* 1989 (1): 139–167. https://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8.

Czeisler, Mark É., Rashon I. Lane, Emiko Petrosky, Joshua F. Wiley, Aleta Christensen, Rashid Njai, Matthew D. Weaver, Rebecca Robbins, Elise R. Facer-Childs, Laura K. Barger, Charles A. Czeisler, Mark E. Howard, and Shantha M. W. Rajaratnam. 2020. "Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic—United States, June 24–30, 2020." *Morbidity and Mortality Weekly Report* 69, no. 32 (August 14): 1049–1057. https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6932a1-H.pdf.

Dawe, Chris, and Suzy Harrington. 2021. "Exploring the Menu: Well-Being Assessment Tool Alternatives." Presented at the 2021 NASPA Strategies Conferences, virtual, January 13, 2021.

Diener, Ed. 2000. "Subjective Well-Being: The Science of Happiness and a Proposal for a National Index." *American Psychologist* 55, no. 1 (January): 34–43. https://doi.apa.org/doi/10.1037/0003-066X.55.1.34.

Dover, Tessa L., Cheryl L. Kaiser, and Brenda Major. 2020. "Mixed Signals: The Unintended Effects of Diversity Initiatives." *Social Issues and Policy Review* 14 (1): 152–181. https://doi.org/10.1111/sipr.12059.

Duran, Antonio. 2019. "Queer *and* of Color: A Systematic Literature Review on Queer Students of Color in Higher Education Scholarship." *Journal of Diversity in Higher Education* 12, no. 4 (December): 390–400. https://psycnet.apa.org/doi/10.1037/dhe0000084.

Duran, Antonio, Raechele L. Pope, and Susan R. Jones. 2020. "The Necessity of Intersectionality as a Framework to Explore Queer and Trans Student Retention." *Journal of College Student Retention: Research, Theory & Practice* 21, no. 4 (February): 520–543. https://doi.org/10.1177%2F1521025119895510.

Espinosa, Lorelle L., Jonathan M. Turk, Morgan Taylor, and Hollie M. Chessman. 2019. *Race and Ethnicity in Higher Education: A Status Report*. Washington, DC: American Council on Education.

Fornell, Claes, and David F. Larcker. 1981. "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error." *Journal of Marketing Research* 18, no. 1 (February): 39–50. https://doi.org/10.2307/3151312.

Foster, Jane, William Allen, Florin Oprescu, and Margaret McAllister. 2014. "Mytern: An Innovative Approach to Increase Students' Achievement, Sense of Wellbeing and Levels of Resilience." *Journal of the Australia and New Zealand Student Services Association* 43 (April): 31–40.

Garvey, Jason C., and Karen Kurotsuchi Inkelas. 2012. "Exploring Relationships Between Sexual Orientation and Satisfaction with Faculty and Staff Interactions." *Journal of Homosexuality* 59 (8): 1167–1190. https://doi.org/10.1080/00918369.2012.712846.

Gortmaker, Valerie J., and Robert D. Brown. 2006. "Out of the College Closet: Differences in Perceptions and Experiences Among Out and Closeted Lesbian and Gay Students." *College Student Journal* 40, no. 3 (September): 606–619.

Graham, John W., Bonnie J. Taylor, Allison E. Olchowski, and Patricio E. Cumsille. 2006. "Planned Missing Data Designs in Psychological Research." *Psychological Methods* 11, no. 4 (December): 323–343. https://psycnet.apa.org/doi/10.1037/1082-989X.11.4.323.

Greathouse, Maren, Allison BrckaLorenz, Mary Hoban, Ronald Huesman Jr., Susan Rankin, and Ellen Bara Stolzenberg. 2018. *Queer-Spectrum and Trans-Spectrum Student Experiences in American Higher Education*. New Brunswick, NJ: Tyler Clementi Center, Rutgers University–New Brunswick. https://clementicenter.rutgers.edu/sites/default/files/pdf/White-Paper-Final.pdf.

Harper, Shaun R. 2012. "Race Without Racism: How Higher Education Researchers Minimize Racist Institutional Norms." *The Review of Higher Education* 36, no. 1: 9–29. https://doi.org/10.1353/rhe.2012.0047.

Harper, Shaun R., and Sylvia Hurtado. 2007. "Nine Themes in Campus Racial Climates and Implications for Institutional Transformation." *New Directions for Student Services* 2007, no. 120 (Winter): 7–24. https://doi.org/10.1002/ss.254.

Harward, Donald W., ed. 2016. *Well-Being and Higher Education: A Strategy for Change and the Realization of Education's Greater Purposes*. Washington, DC: Bringing Theory to Practice.

Healthy Minds Network. n.d. "Overview of the Healthy Minds Study." Accessed May 24, 2021. https://healthymindsnetwork.org/hms/.

Healthy Minds Network and ACHA (American College Health Association). 2020. *The Impact of COVID-19 on College Student Well-Being*. Silver Spring, MD: ACHA.

Hu, Li-tze, and Peter M. Bentler. 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives." *Structural Equation Modeling: A Multidisciplinary Journal* 6 (1): 1–55. https://doi.org/10.1080/10705519909540118.

Hughes, Bryce E., and Sylvia Hurtado. 2018. "Thinking About Sexual Orientation: College Experiences That Predict Identity Salience." *Journal of College Student Development* 59, no. 3 (May–June): 309–326. https://doi.org/10.1353/csd.2018.0029.

Human Rights Campaign. n.d. "Glossary of Terms." Human Rights Campaign. Accessed April 6, 2020. https://www.hrc.org/resources/glossary-of-terms.

Hurtado, Sylvia. 2001. "Linking Diversity and Educational Purpose: How Diversity Affects the Classroom Environment and Student Development." In *Diversity Challenged: Evidence on the Impact of Affirmative Action*, edited by Gary Orfield with Michal Kurlaender, 187–203. Cambridge, MA: The Civil Rights Project, Harvard University.

Hussar, William J., and Tabitha M. Bailey. 2020. *Projections of Education Statistics to 2028.* Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Johnson, Stefanie K., Susan Elaine Murphy, Selamawit Zewdie, and Rebecca J. Reichard. 2008. "The Strong, Sensitive Type: Effects of Gender Stereotypes and Leadership Prototypes on the Evaluation of Male and Female Leaders." *Organizational Behavior and Human Decision Processes* 106, no. 1 (May): 39–60. https://doi.org/10.1016/j.obhdp.2007.12.002.

Jorgensen, Terrence D., Sunthud Pornprasertmanit, Alexander M. Shoemann, and Yves Rosseel. 2021. "SemTools: Useful Tools for Structural Equation Modeling." R package version 0.5-4. https://cran.r-project.org/package=semTools.

Kennett, Deborah J., and Maureen J. Reed. 2009. "Factors Influencing Academic Success and Retention Following a 1st-year Post-secondary Success Course." *Educational Research and Evaluation* 15 (2): 153–166. https://doi.org/10.1080/13803610902804382.

Kenny, David A., and D. Betsy McCoach. 2003. "Effect of the Number of Variables on Measures of Fit in Structural Equation Modeling." *Structural Equation Modeling* 10 (3): 333–351. https://doi.org/10.1207/S15328007SEM1003_1.

Kousoulis, Antonis A., Tine Van Bortel, Priscila Hernandez, and Ann John. 2020. "The Long Term Mental Health Impact of Covid-19 Must Not Be Ignored." *BMJ Opinion* (blog), *The British Medical Journal.* May 5, 2020. https://blogs.bmj.com/bmj/2020/05/05/the-long-term-mental-health-impact-of-covid-19-must-not-be-ignored/.

Kuh, George D. 1996. "Guiding Principles for Creating Seamless Learning Environments for Undergraduates." *Journal of College Student Development* 37 (2): 135–48.

Little, Todd D., and Mijke Rhemtulla. 2013. "Planned Missing Data Designs for Developmental Researchers." *Child Development Perspectives* 7, no. 4 (December): 199–204. https://doi.org/10.1111/cdep.12043.

Lorenzi, Georgia, Marina Miscioscia, Lucia Ronconi, Caterina Elisa Pasquali, and Alessandra Simonelli. 2015. "Internalized Stigma and Psychological Well-Being in Gay Men and Lesbians in Italy and Belgium." *Social Sciences* 4 (4): 1229–1242. https://doi.org/10.3390/socsci4041229.

Lumley, Thomas. 2004. "Analysis of Complex Survey Samples." *Journal of Statistical Software* 9 (1): 1–19. https://www.jstatsoft.org/article/view/v009i08.

Lumley, Thomas. 2020. "Survey: Analysis of Complex Survey Samples." R package version 4.0. https://cran.r-project.org/web/packages/survey/index.html.

Madden, Margaret. 2011. "Gender Stereotypes of Leaders: Do They Influence Leadership in Higher Education?" *Wagadu: A Journal of Transnational Women's & Gender Studies* 9: 55–88.

Museus, Samuel D., and Kimberly A. Griffin. 2011. "Mapping the Margins in Higher Education: On the Promise of Intersectionality Frameworks in Research and Discourse." *New Directions for Institutional Research* 2011, no. 151 (Fall): 5–13. https://doi.org/10.1002/ir.395.

Mustanski, Brian, Rebecca Andrews, and Jae A. Puckett. 2016. "The Effects of Cumulative Victimization on Mental Health Among Lesbian, Gay, Bisexual, and Transgender Adolescents and Young Adults." *American Journal of Public Health* 106, no. 3 (March): 527–533. https://doi.org/10.2105/AJPH.2015.302976.

Muthén, Linda K., and Bengt O. Muthén. 2017. *Mplus User's Guide.* 8th ed. Los Angeles: Muthén & Muthén.

NCES (National Center for Education Statistics). 2019. *Digest of Education Statistics,* Table 306.10. Washington, DC: U.S. Department of Education, NCES. https://nces.ed.gov/programs/digest/d19/tables/dt19_306.10.asp.

NCES (National Center for Education Statistics). 2020. *Digest of Education Statistics 2020*, Tables 334.10 and 334.30. Washington, DC: U.S. Department of Education, NCES. https://nces.ed.gov/programs/digest/2020menu_tables.asp.

Ndugga, Nambi, Olivia Pham, Latoya Hill, and Samantha Artiga. 2021. "Latest Data on COVID-19 Vaccinations Race/Ethnicity." *KFF*. Accessed March 3, 2021. https://www.kff.org/coronavirus-covid-19/issue-brief/latest-data-on-covid-19-vaccinations-race-ethnicity/.

NIRSA (NIRSA: Leaders in Collegiate Recreation), NASPA (NASPA – Student Affairs Administrators in Higher Education), and ACHA (American College Health Association). 2020. *Inter-association Definition of Well-being*. Corvalis, WA; Washington, DC; and Silver Spring, MD: NIRSA, NASPA, and ACHA. www.nirsa.org/hands-in.

Okanagan Charter. 2015. *Okanagan Charter: An International Charter for Health Promoting Universities and Colleges*. https://open.library.ubc.ca/cIRcle/collections/53926/items/1.0132754.

Oronce, Carlos Irwin A., Christopher A. Scannell, Ichiro Kawachi, and Yusuke Tsugawa. 2020. "Association Between State-Level Income Inequality and COVID-19 Cases and Mortality in the USA." *Journal of General Internal Medicine* 35, no. 9 (September): 2791–2793. https://doi.org/10.1007/s11606-020-05971-3.

Perna, Laura W. 2001. "Sex and Race Differences in Faculty Tenure and Promotion." *Research in Higher Education* 42, no. 5 (October): 541–567. https://doi.org/10.1023/A:1011050226672.

Perna, Laura W., Danette Gerald, Evan Baum, and Jeffrey Milem. 2007. "The Status of Equity for Black Faculty and Administrators in Public Higher Education in the South." *Research in Higher Education* 48, no. 2 (March): 193–228. https://doi.org/10.1007/s11162-006-9041-4.

Preston, Marilyn J., and Garrett Drew Hoffman. 2015. "Traditionally Heterogendered Institutions: Discourses Surrounding LGBTQ College Students." *Journal of LGBT Youth* 12 (1): 64–86. https://doi.org/10.1080/19361653.2014.935550.

Pryor, Jonathan T. 2018. "Visualizing Queer Spaces: LGBTQ Students and the Traditionally Heterogendered Institution." *Journal of LGBT Youth* 15 (1): 32–51. https://doi.org/10.1080/19361653.2017.1395307.

Raghunathan, Trivellore E., and James E. Grizzle. 1995. "A Split Questionnaire Survey Design." *Journal of the American Statistical Association* 90 (429): 54–63. https://doi.org/10.1080/01621459.1995.10476488.

Rainey, Katherine, Melissa Dancy, Roslyn Mickelson, Elizabeth Stearns, and Stephanie Moller. 2018. "Race and Gender Differences in How Sense of Belonging Influences Decisions to Major in STEM." *International Journal of STEM Education* 5, 10. https://doi.org/10.1186/s40594-018-0115-6.

Renn, Kristen A. 2010. "LGBT and Queer Research in Higher Education: The State and Status of the Field." *Educational Researcher* 39, no. 2 (March): 132–141. https://doi.org/10.3102%2F0013189X10362579.

Rönkkö, Mikko. 2020. "Matrixpls: Matrix-Based Partial Least Squares Estimation." R package version 1.0.9. https://cran.r-project.org/web/packages/matrixpls/index.html.

Rood, Brian A., Sari L. Reisner, Jae A. Puckett, Francisco I. Surace, Ariel K. Berman, and David W. Pantalone. 2017. "Internalized Transphobia: Exploring Perceptions of Social Messages in Transgender and Gender-Nonconforming Adults." *International Journal of Transgenderism* 18 (4): 411–426. https://doi.org/10.1080/15532739.2017.1329048.

Rosseel, Yves. 2012. "lavaan: An R Package for Structural Equation Modeling." *Journal of Statistical Software* 48, no. 2 (May): 1–36. http://dx.doi.org/10.18637/jss.v048.i02.

Ryan, Richard M. and Edward L. Deci. 2001. "On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-being." *Annual Review of Psychology* 51, no. 1: 141–166. https://doi.org/10.1146/annurev.psych.52.1.141.

Schneider, Finn. 2010. "Where Do We Belong? Addressing the Needs of Transgender Students in Higher Education." *The Vermont Connection* 31 (1): 96–106. https://scholarworks.uvm.edu/tvc/vol31/iss1/11/.

Schreiner, Laurie A. 2015. "Positive Psychology and Higher education: The Contribution of Positive Psychology to Student Success and Institutional Effectiveness." In *Positive Psychology on the College Campus*, edited by John C. Wade, Lawrence I. Marks, and Roderick D. Hetzel, 1–25. Series in Positive Psychology. New York: Oxford University Press.

Seelman, Kristie L. 2014. "Transgender Individuals' Access to College Housing and Bathrooms: Findings from the National Transgender Discrimination Survey." *Journal of Gay & Lesbian Social Services* 26 (2): 186–206. https://doi.org/10.1080/10538720.2014.891091.

Settles, Isis H. 2006. "Use of an Intersectional Framework to Understand Black Women's Racial and Gender Identities." *Sex Roles* 54, no. 9 (May): 589–601. https://doi.org/10.1007/s11199-006-9029-8.

Su, Rong, and James Rounds. 2015. "All STEM Fields are not Created Equal: People and Things Interests Explain Gender Disparities Across STEM Fields." *Frontiers in Psychology* 6:189. https://doi.org/10.3389/fpsyg.2015.00189.

Sue, Derald Wing, Christina M. Capodilupo, Gina C. Torino, Jennifer M. Bucceri, Aisha M. B. Holder, Kevin L. Nadal, and Marta Esquilin. 2007. "Racial Microaggressions in Everyday Life: Implications for Clinical Practice." *American Psychologist* 62, no. 4 (May-June): 271–286. https://psycnet.apa.org/doi/10.1037/0003-066X.62.4.271.

Taylor, Morgan, Charles Sanchez, Hollie M. Chessman, and Anna Marie Ramos. 2021. *College and University Presidents Respond to COVID-19: 2021 Spring Term Survey, Part II*. Washington, DC: American Council on Education.

Teo, Thompson S. H., Shirish C. Srivastava, and Li Jiang. 2008. "Trust and Electronic Government Success: An Empirical Study." *Journal of Management Information Systems* 25 (3): 99–132. https://doi.org/10.2753/MIS0742-1222250303.

The Steve Fund and JED (The Jed Foundation). 2017. *The Equity in Mental Health Framework*. Providence, RI and New York: The Steve Fund and JED. equityinmentalhealth.org.

Tinto, Vincent. 2004. *Student Retention and Graduation: Facing the Truth, Living with the Consequences.* Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education. https://eric.ed.gov/?id=ED519709.

Valerio, Nakita. 2019. "This Viral Facebook Post Urges People to Rethink Self-Care." *Flare.* April 16, 2019. https://www.flare.com/identity/self-care-new-zealand-muslim-attack/.

Vandenberg, Robert J., and Charles E. Lance. 2000. "A Review and Synthesis of the Measurement Invariance Literature: Suggestions, Practices, and Recommendations for Organizational Research." *Organizational Research Methods* 3, no. 1 (January): 4–70. https://doi.org/10.1177%2F109442810031002.

Verschelden, Cia. 2017. *Bandwidth Recovery: Helping Students Reclaim Cognitive Resources Lost to Poverty, Racism, and Social Marginalization*. Sterling, VA: Stylus Publishing, LLC.

Verschelden, Cia, and Tina Bhargava. 2019. "Preventing & Recovering the Loss of Bandwidth Due to Poverty, Racism, and Other 'Differentisms.'" Presented at AAC&U Annual Meeting, Atlanta, GA, January 25, 2019. https://www.aacu.org/sites/default/files/files/AM19/bandwidth%20-%20aacu%202019.pdf.

Wake Forest University. n.d. "The Wellbeing Assessment." Wellbeing Collaborative. Accessed May 24, 2021. https://wellbeingcollaborative.wfu.edu/the-wellbeing-assessment/.

Wrigley-Field, Elizabeth. 2020. "U.S. Racial Inequality May Be as Deadly as COVID-19." *Proceedings of the National Academy of Sciences* 117, no. 36 (September 8): 21854–21856. https://doi.org/10.1073/pnas.2014750117.

Yu, Ching-Yun. 2002. "Evaluating Cutoff Criteria of Model Fit Indices for Latent Variable Models with Binary and Continuous Outcomes." PhD diss., University of California, Los Angeles. http://www.statmodel.com/download/Yudissertation.pdf.