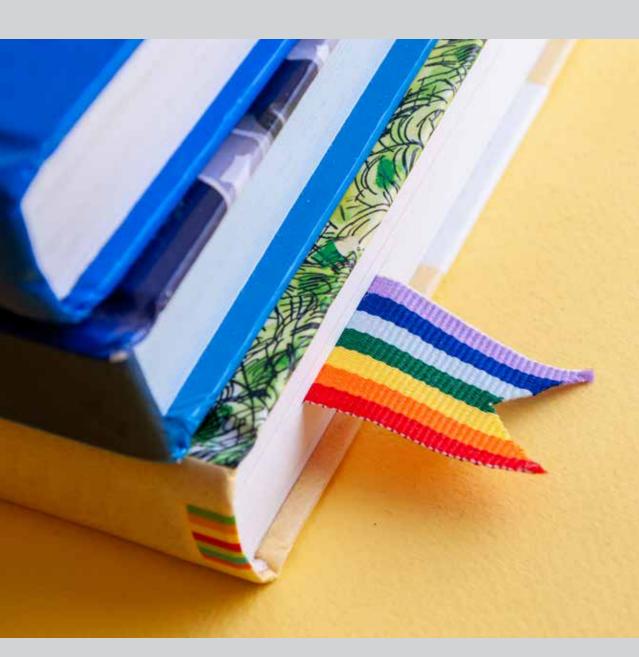


Educating Educators:

Knowledge, Beliefs, and Practice of Teacher Educators on LGBTQ Issues





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Teacher Educators on LGBTQ Issues

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GLSEN is the leading national education organization focused on ensuring safe schools for all students. Established in 1990, GLSEN envisions a world in which every child learns to respect and accept all people, regardless of sexual orientation or gender identity/expression. GLSEN seeks to develop school climates where difference is valued for the positive contribution it makes to creating a more vibrant and diverse community. For more information on our educator resources, research, public policy agenda, student leadership programs, or development initiatives, visit www.glsen.org.

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PREFACE

Since 1990, GLSEN research has demonstrated that educators who are openly supportive of LGBTQ+ people and who positively include LGBTQ+ topics in their curriculum are critical to ensuring safe and affirming schools for all students. Supportive educators are one of the Four Core Supports identified by the GLSEN Research Institute that improves school climates for LGBTQ+ youth, along with comprehensive nondiscrimination and anti-bullying policies, access to inclusive curriculum, and access to GSAs (Gender and Sexuality Alliances or Gay-Straight Alliances).

For more than 20 years, GLSEN has been at the forefront of building the foundation of evidence for action on LGBTQ+ youth civil rights in K–12 schools. In addition to spearheading evidence-based investments, GLSEN has led in tracking the impact of efforts to improve the lives and futures of LGBTQ+ children by ensuring their ability to participate fully in education and all parts of school life.

Educating Educators: Knowledge, Beliefs, and Practice of Teacher Educators on LGBTQ Issues is the latest example of GLSEN's evidence-based approach to creating safe and affirming schools for all youth and the first national report examining LGBTQ+-inclusive teaching in teacher education programs. This new report identifies teacher educators' attitudes and beliefs about the inclusion of LGBTQ+ issues in their teacher education courses, how teacher educators were prepared in their training to include LGBTQ+ people and issues in their work, the LGBTQ+-inclusive practices teacher educators engage in in their teaching, the barriers teacher educators face in engaging in LGBTQ+-inclusive teaching practices, and factors that lead to more inclusion of LGBTQ+-related content in teacher educators' teaching practice.

Student experiences are shaped by what they learn in the classroom. When LGBTQ+ students attend schools where they learn about positive representations of LGBTQ+ people, history, and events during their course of study, they do better in school, have higher educational aspirations, they experience greater school belonging, and are also more likely to report that their peers are accepting of LGBTQ+ people.

Educators who are openly supportive of LGBTQ+ people and who positively include LGBTQ+ topics in their curriculum are critical to ensuring safe and affirming schools for all students. For many students, having adult allies in school to whom they can turn to for support creates a more welcoming and safe learning environment. Teachers are often the first adult allies LGBTQ+ students share their identity with—it is critical that these teachers be trained and prepared in how to support these young people. When LGBTQ+ students are able to be who they are, feel seen and represented in the curriculum, and have supportive and confident educators to address and advocate for their needs, it allows them to focus on doing their best and enables them to thrive in school.

Further, student experiences are shaped by what they learn in the classroom. When LGBTQ+ students attend schools where they learn about positive representations of LGBTQ+ people, history, and events during their course of study, they do better in school, have higher educational aspirations, they experience greater school belonging, and are also more likely to report that their peers are accepting of LGBTQ+ people.

In order for teachers to create a more positive school climate, they need to have the tools and preparation to do so. While the vast majority of teachers feel a strong obligation to ensure a safe and supportive learning environment for their LGBTQ+ students, many teachers are not prepared to act on this responsibility. This leads to inaction and ultimately negative outcomes for LGBTQ+ youth and all students in schools.

Many teachers strongly support diversity and ensuring LGBTQ+ students are in safe and supportive learning environments. However, as they complete their pre-service training and enter the classroom, educators may lack the knowledge and skills needed to ensure safe and affirming learning environments for these students. Further, even if educators are equipped to work with lesbian, gay, bisexual, and queer students, they may lack the confidence and knowledge to work with transgender students. In our current political climate in which the rights of transgender and nonbinary youth are being attacked and their access to fully participate in education limited, this lack of preparation to address the specific needs

of transgender students can be detrimental to the well-being and academic success of these students. Furthermore, teachers are subject to extreme and increasing outside pressures. From working on the front line of the health crises created by the ongoing COVID19 pandemic, to being in the crosshairs of the right-wing led battle to limit diversity and prohibit honesty in school curriculum, to becoming easy targets of a vocal, emboldened, and increasingly violent anti-education anti-gay "parent's rights groups" and regressive school boards—educators need to be equipped to handle opposition from all sides. These are just a few examples of why it is imperative that educators be trained properly in their teacher education programs—they must be able to enter their classrooms prepared and willing to integrate LGBTQ+ topics into their teaching and to support their LGBTQ+ students while also helping to foster welcoming learning communities.

Education is the cornerstone of democracy. As such, we have a shared responsibility to ensure that every child receives a quality education, that every learner has what they need to not only learn, but *thrive* in school. Given this, teacher educators and pre-service education programs and institutions have a pedagogical and democratic responsibility to produce teachers who are not only skilled and capable of creating and maintaining classrooms, hallways, and learning communities that are safe and affirming for all learners, but also those who are confident in their abilities and consistent in their practice. We hope this research and report can help fill the gaps in teacher education programs when addressing LGBTQ+ issues and will encourage in-service teachers to put their support into bold practice as they enter and remain in the classroom.

Melanie Willingham-Jaggers (they/she)

Executive Director

GLSEN

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EXECUTIVE SUMMARY

For 30 years GLSEN has worked to ensure that all students have access to safe and welcoming schools, regardless of sexual orientation, gender identity, or gender expression. In service of this mission, the GLSEN Research Institute conducts national studies examining the state of LGBTQ issues in K–12 education from various perspectives, including students, school staff, and administrators. Given that teachers are critical to creating safe and supportive learning environments, it is essential to better understand how they are being prepared to do so, and especially to better understand how K–12 teachers are being prepared, in their pre-service training and teacher education programs, to address LGBTQ issues and topics in their teaching and the needs of LGBTQ students. Thus, the current study examines the state of teacher education programs in regard to LGBTQ-inclusive practices and preparation.

Given the lack of national research examining LGBTQ-inclusive teaching in teacher education programs, we undertook the *Educating Educators: Knowledge, Beliefs, and Practice of Teacher Educators on LGBTQ Issues* to examine teacher educators', or those who teach courses in colleges and universities that prepare pre-service educators, perspectives and experiences regarding their LGBTQ-related work. GLSEN, in partnership with the Association of College and Teacher Education (AACTE) and the Association of Teacher Educators (ATE), conducted the survey, which examined:

- Teacher educators' attitudes and beliefs about the inclusion of LGBTQ issues in their teacher education courses:
- How teacher educators were prepared in their training to include LGBTQ people and issues in their work as teacher educators;
- The LGBTQ-inclusive practices teacher educators engage in in their teaching;
- The barriers faced in engaging in LGBTQ-inclusive teaching practices; and
- Factors that lead to more inclusion of LGBTQ-related content in teacher educators' teaching practice.

Methods

From March to September 2016, teacher educators, deans, or program coordinators of teacher education programs were invited to participate in our study online. Email invitations, in addition to social media posts and announcements, were sent by professional organizations for teacher educators and other related professions. Additionally, 150 department chairs and/or deans at randomly selected schools and programs of education in the US were asked to share the survey with their students. Finally, we conducted targeted outreach though social media (e.g. Facebook, Google).

The final sample consisted of 584 teacher educators from colleges and universities in 45 states and the District of Columbia. The majority of teacher educators in the study identified as White (87.1%), heterosexual (83.0%) and/or cisgender female (76.8%). Most teacher educators had doctorate degrees (81.1%), and two-thirds were faculty members - either tenured (42.8%) or tenure-track faculty (24.4%). Over two-thirds of respondents worked at state colleges or universities (68.3%) and most taught undergraduate (80.0%) students. The average age of respondents was 50.3 years and most respondents had over 6 years of experience as a teacher educator (69.5%).

Key Findings

Attitudes and Beliefs about LGBTQ-Inclusive Teaching

There are currently no national regulations or standards requiring LGBTQ-related content inclusion in teacher preparation, and the inclusion of such content is dependent on individual schools, programs, and teacher educators. Thus, teacher educators' own attitudes and beliefs about LGBTQ issues and inclusive teaching could be an important factor influencing LGBTQ-inclusion in their teaching. We asked teacher educators about the level of perceived important of LGBTQ-related content and other diversity topics. Additionally, we examined teacher educators' confidence engaging in LGBTQ-related teaching practices.

Attitudes

- Teacher educators rated all general diversity and sociocultural topics, in addition to more traditional interpersonal skills, as important for their students to learn. The topic rated most important by teacher educators was multicultural education and diversity, with nearly 9 in 10 teacher educators reporting it as "very important" for their pre-service students to be taught.
- The majority of teacher educators (56.9%) rated the inclusion of LGBTQ content as very important, although they rated it as less important than more general diversity and sociocultural topics.
- The vast majority of teacher educators (94.7%) believed it was very important to equip pre-service teachers with the skills and knowledge to teach their students about respecting all.
- Of LGBTQ-specific skills and content, intervening in anti-LGBTQ remarks was rated the most important (82.4% reporting "very important") followed by skills and knowledge to use LGBTQ-inclusive language (63.0%), and to advocate for changes in their school's LGBTQ inclusivity (58.2%).
- Teacher educators rated providing skills and knowledge to assess their school climate for LGBTQ issues (42.7%) and including information on LGBTQ people and issues in their teaching and curriculum (42.0%) as the least important topics for their students.

Confidence

- Overall, teacher educators were not very confident engaging in LGBTQ-inclusive teaching. The minority
 of teacher educators reported being very confident in various LGBTQ-inclusive teaching practices
 including intervening in anti-LGBTQ language and behaviors of their students, recognizing anti-LGBTQ
 bias in education practices and materials, and teaching future educators about how to support LGBTQ
 students.
- Teacher educators were most confident intervening when hearing anti-LGBTQ remarks or witnessing anti-LGBTQ bullying or harassment, and using culturally sensitive terminology related to lesbian, gay, and bisexual people and topics (48.6% and 42.4% reporting "very confident," respectively).
- Over a third of teacher educators were also very confident in challenging their future students to consider their own LGBTQ bias (38.7%), and recognizing anti-LGBTQ bias in education practice and materials (35.3%).
- Teacher educators were least confident in teaching other educators how to support LGBTQ students (25.5%) and answering questions from their students about LGBTQ people and issues (23.6%).

LGBTQ-Related Professional Preparation and Resources

The preparation that teacher educators may or may not receive in their own careers may influence how they prepare their pre-service teachers to include LGBTQ-related content in their teaching. To this end, we asked teacher educators about their own LGBTQ-related professional development experiences, including where they received training and in what content areas as well as what resources have been useful in their development as a teacher educator.

Influences on Teacher Educators Practices

- In their general teaching:
 - Teacher educators were most influenced by their own experiences as a K-12 educator, their own experiences, other post-secondary education, and reading professional journals and publications; and
 - Teacher educators were least influenced by in-service professional development as a K–12 educator, formal professional development as teacher, and the policies or practices of the schools where their students are placed.
- In their LGBTQ-inclusive teaching:
 - Teacher educators rated readings as the most influential source of LGBTQ-related information, followed by colleagues, and current and former students.
 - Teacher educators were least influenced by the policies and practices of any student field placement or cooperating school districts.

Setting and Content of LGBTQ-Related Professional Development Received by Teacher Educators

Setting

- Over three quarters (76.0%) of teacher educators reported receiving any professional development in LGBTQ-related topics either in undergraduate or graduate school, in their current or former professional institutions, or somewhere else.
- Only 3 in 10 teacher educators (34.3%) received training on LGBTQ-related topics in their in-service training and just over 4 in 10 received such training in their graduate or undergraduate training (39.3%).

Content

- The most common kind of LGBTQ-related training teacher educators received was about family diversity and different family structures (65.1%).
 - Teacher educators received significantly less training on topics that were explicitly about LGBTQ topics, with the minority of teacher educators receiving any training on LGBTQ-specific topics including ways to support lesbian, gay, and bisexual youth, ways to support transgender youth, and how to include LGBTQ topics/issues into students' teaching/curricula.
- Teacher educators received little training in topics that had to do with assessing and including LGBTQ content into curriculum. A third or fewer reported that they had had professional development on including LGBTQ topics in the curriculum (33.7%), inclusion of LGBTQ history (28.8%), and assessing curricular materials for LGBTQ-related bias (27.8%).

- Training on family diversity, queer and gender theory, sexual identity development, and gender identity and transgender identity development were more likely to be addressed in pre-service training, i.e., while teacher educators were in undergraduate and graduate school.
- Training on ways to support LGB youth, ways to support transgender youth, and intervention in anti-LGBTQ language were more likely to be addressed through in-service training, i.e., training provided or mandated by their current or previous teaching institution.
- Training on including LGBTQ content in curriculum was most commonly received from other sources, such as academic conferences or a community training.

Engagement in LGBTQ-Inclusive Practices

To understand if and how teacher educators actually engaged in LGBTQ-inclusive teaching, we asked teacher educators about their LGBTQ-inclusive teaching practices, including the types of LGBTQ content they included, in which courses this content was included, and what instructional methods they used. Further, we asked about LGBTQ-supportive actions outside of the classroom.

Inclusion of LGBTQ-Specific Topics and Content

- Most teacher educators (80.1%) reported that they included LGBTQ content in their courses (Figure 3.2).
- Of LGBTQ-specific topics, teacher educators were most likely to teach pre-service teachers about ways to support lesbian, gay, and bisexual youth, sexual identity and development, and intervention in anti-LGBTQ language.
- Topics that were less frequently incorporated in teacher educators' teaching were topics related to transgender youth and identity, assessing curriculum and institutional practices with a lens toward LGBTQ bias, and LGBTQ curricular inclusion.
- Teacher educators were most likely to include LGBTQ-related content in multicultural, diversity, and equity education courses 39.3% reported including LGBTQ content frequently in this type of course.
- The majority of teacher educators also reported including LGBTQ content in sociocultural foundations and child or adolescent development courses, with 59.1% and 55.2% reporting including it somewhat to frequently throughout the course, respectively.

Instructional Methods and Resources for LGBTQ-Inclusive Teaching

- Teacher educators were most likely to include LGBTQ content through class discussions and interactive activities (70.6%) and through readings, such as assigned books and articles (61.9%).
- Teacher educators found publications (e.g., journals and books) (68.8%), and their own students in their teacher education courses and their colleagues to be the most helpful (66.4%).
- In contrast, the vast minority of teacher educators found curricular standards or syllabi from their institution or department helpful (21.6%).

LGBTQ-Supportive Activities and Advocacy Outside of the Classroom

• There is no single activity or form of advocacy that the majority of teacher educators engaged in.

- The most commonly reported LGBTQ-supportive activities outside of the classroom were displaying a visual sign of support for LGBTQ people in their office or other space where they meet students (27.3%), attending a training designed to create and maintain supportive spaces for LGBTQ spaces, such as Safe Zone or Safe Space training (24.7%), and mentoring or providing support to LGBTQ preservice teachers (23.0%).
- The least common activities were addressing LGBTQ issues in their own research or scholarship (14.8%), supporting or advising an LGBTQ student group at their institution (11.3%), or providing professional development for colleagues on LGBTQ issues (11.0%).
- Fewer the 1 in 5 teacher educators engaged in advocacy or community service related to an LGBTQ issue or cause (17.4%), and advocated for the inclusion of LGBTQ-related topics in their institution's teacher education programs curriculum or course content (14.7%).

Barriers to LGBTQ-Inclusive Teaching

Some teacher educators may have a desire to include more LGBTQ-related content in their courses but may face barriers to doing so. Others may not feel personally compelled to include this type of content either because of their personal beliefs or because of the level of importance they ascribe to the issues. Thus, we asked teacher educators the reasons why they do not always include LGBTQ content and additionally whether they had experienced specific barriers. About two-thirds (63.2%) of teacher educators reported facing some kind of barrier or other factor that prevented them from including LGBTQ-related content at all, or as much as they would like.

Type of Barriers

- More than a third (39.3%) of teacher educators reported that their own lack of knowledge or preparation regarding LGBTQ issues were barriers for inclusion.
- About a quarter (29.6%) of teacher educators reported that they did not include LGBTQ content
 because it was not relevant or appropriate to the specific course they taught. However, education
 advocates, as well as experts in curricular inclusion, would maintain most areas of teacher education,
 including early childhood education, art education, and education policy (which were courses and
 topics cited by teacher educators as not relevant) could be cognizant of sexual and gender diversity.
- About a quarter of teacher educators (27.4%) also reported that time constraints prevented them from including LGBTQ content.
- One in ten teacher educators (10.9%) reported that their students were a barrier to LGBTQ inclusion, such as students protesting in class when LGBTQ content was presented or writing about their LGBTQ-inclusive teaching in negative teaching evaluations.
- Nearly 1 in 10 teacher educators (9.1%) reported that the local community or school districts that they and their students engaged with were too conservative.

Predictors of LGBTQ-Inclusive Practices

We maintain that attitudes and beliefs, self-efficacy, prior knowledge and experiences, and professional characteristics of the individual could all contribute to the propensity of inclusive teacher educator practice, along with support, or lack thereof, from one's institution and barriers to inclusion. Thus, we explored what are the most salient predictors of LGBTQ-inclusive practice when considering all the factors simultaneously. Our findings suggest that certain professional characteristics, previous career influences, attitudes and beliefs, knowledge, and perhaps to a lesser extent self-efficacy, may be significant influences for teacher educators.

- Professional Characteristics. Teaching early childhood education and teaching secondary education
 were associated with a greater likelihood of LGBTQ inclusive teaching practices, but teaching preservice elementary education was not significantly related to LGBTQ inclusion. In addition, being a
 faculty member without an additional administrative or other role at one's institution was associated
 with a lower likelihood of inclusive practice, which may indicate that those faculty with less autonomy
 or authority may be less likely to engage in LGBTQ inclusive practice and teaching,
- Knowledge. Increased exposure to LGBTQ content via professional development trainings was associated with increased likelihood of LGBTQ inclusion in one's own teaching.
- Attitudes and Beliefs. Teacher educators' belief that the inclusion of LGBTQ content is important
 for pre-service educators was related to a greater likelihood of LGBTQ inclusion in teacher educator
 practice. In contrast, however, we found that teacher educators' belief that it is important to teach
 socioemotional development was related to a lower likelihood on inclusion.
- Previous Career Influences. The influence of current and former students was related to a greater likelihood of LGBTQ inclusion in teacher educator practice. In contrast, the influence of teacher educators' own college and graduate school experiences was related to a lower likelihood of LGBTQinclusive practice.
- Self-efficacy. Self-efficacy regarding employing LGBTQ inclusive practices was only a marginally significant predictor of greater LGBTQ inclusive practice.
- Demographics. Teacher educators with more years of experience were more likely to employ inclusive practices. It may be that teacher educators with a longer teaching history are more likely to have been exposed to content on LGBTQ issues, particularly through professional development. It may also be that teacher educators with more years of experience had greater job security because of academic tenure. We also found, with regard to gender, that cisgender female teacher educators were more likely to employ LGBTQ-inclusive teaching practices than their cisgender male peers.

We did not find that perceived barriers to inclusion and institutional support were significantly related to teacher educator practices when all factors were considered, in contrast to what we found regarding individual characteristics and experiences.

Conclusions and Recommendations

Teacher educators have a responsibility to prepare their pre-service students with skills and knowledge to support and affirm LGBTQ youth in their classes, and create learning environments that are supportive of LGBTQ people and topics. Most teacher educators believed that it was important to prepare their students with skills to engage in LGBTQ teaching, but had low confidence doing so. Further, even though most teacher educators reported including LGBTQ content in some way at least once in their courses, few engaged in this content regularly and frequently. Furthermore, when considering specific types of LGBTQ-related content, only a few were more commonly taught, such as family diversity and supporting LGBTQ youth. Even though many engaged in LGBTQ-inclusive teaching to any extent, most teacher educators faced various barriers to such teaching, the most common being lack of knowledge and preparation. This is unsurprising when considering our findings that show that most teacher educators do not receive LGBTQ-related training or professional development in their in-service or pre-service training.

Our findings highlight a gap between teacher educators' positive attitudes and beliefs about LGBTQ-inclusive teaching and their actual practice. Based on these findings, we recommend the following to support LGBTQ-inclusive teaching practices among teacher educators:

- Increased Professional Development. More LGBTQ-related professional development and training must be provided at all levels of education and professional careers, to improve teacher educators' knowledge base, improve their attitudes about LGBTQ-related topics, and equip them with skills and resources to improve their confidence, self-efficacy, which will in turn, improve teaching practices.
 - Professional development must not only include general and basic knowledge about LGBTQ people and youth, but also include training on assessing and examining school climates and curricula for anti-LGBTQ bias. This would help ensure that teacher educators have the skills to proactively assess and address bias in all elements of teaching and the classroom, including implicit forms of bias in curricula.
 - LGBTQ professional development must go beyond training educators to be competent in sexual orientation-related topics, and ensure that educators understand the unique experiences and needs of transgender people and youth.
 - Although multicultural education and diversity education are key venues for LGBTQ content inclusion, it is critical that they not be the only locations of inclusion, and it is necessary to provide training and support to teacher educators in all subject areas and of all school levels.
- Advocacy at the institutional level. At the institutional level, there must be policies and practices in place requiring inclusion of LGBTQ-related work in pre-service education. Higher education institutions and professional organizations have a responsibility to set standards and expectations to promote LGBTQ inclusion in teacher education programs.
 - Put in place policies and practices requiring inclusion of LGBTQ-inclusive work in pre-service education.
 - University administrations should require a certain amount of LGBTQ-related content in preservice education courses and require LGBTQ professional development for all teacher educators at their institution.
 - Professional organizations mission statements should be written to include a dedication to LGBTQ-inclusive teaching, and policies and practices should make it clear that LGBTQ competency is expected of the organization's member.
- State standards and certification. Advocacy is needed in regards to state standards at the higher education level. Pre-service educators should be required to be taught how to engage in LGBTQ-inclusive curriculum in their pre-service programs, so that they are well prepared for their careers as K-12 teachers. Such legislation is especially important in states with laws that require the inclusion of LGBTQ content in K-12 curriculum, as teachers in these states are mandated to teach content that they were not mandated to learn in their teacher preparation.

Teacher educators and pre-service education programs and institutions have a responsibility to prepare teachers who will create classrooms that are safe and affirming for all youth and who are confident in their abilities. More professional development and training is needed at all the stages of teacher educators' educational and professional careers – from their pre-service education to continuing professional development in their tenure as teachers. Further, it is the responsibility of higher education institutions, professional organizations, and state legislatures to ensure that this work occurs, by supporting and mandating LGBTQ-inclusive teaching and curriculum in teacher preparation programs across the country.

INTRODUCTION

For over 30 years, GLSEN has worked to promote safe and affirming schools for all students, regardless of their sexual orientation, gender identity, or gender expression. In service of this mission, the GLSEN Research Institute has been a leading contributor to the growing body of research examining the school experiences of lesbian, gay, bisexual, transgender, and queer (LGBTQ) youth in the United States since 1999. Findings from GLSEN's National School Climate Survey (NSCS), our biennial survey on LGBTQ students' school experiences, have consistently shown that LGBTQ youth in U.S. secondary schools experience high rates of victimization, biased-language, and discrimination in their schools, and that these experiences negatively impact educational experiences and psychological well-being. Anti-LGBTQ bias also leads to hostile school climate in U.S. elementary schools. In GLSEN's Playgrounds and Prejudice, elementary school students report frequently hearing remarks like "that's so gay" and some experience gender-expression-based bullying and name-calling.2

In light of the negative school experiences often faced by LGBTQ students, GLSEN advocates for supportive educators in K-12 schools, as well as the inclusion of LGBTQ-related information in the curriculum. To this end, GLSEN has documented the extent to which LGBTQ students have reported the availability of LGBTQ supportive educators as well as the presence of an LGBTQ-inclusive curriculum, and the relationship between the availability of these resources and school climate. Years of research confirm resources and supports, such as educators who are openly supportive of LGBTQ students and curriculum that is inclusive of LGBTQ people and issues, help promote a safer and more welcoming school environment for all students, especially for LGBTQ students.³ Specifically, GLSEN research has found that LGBTQ students who have LGBTQ-supportive teachers felt safer in their schools, experienced less victimization, reported greater psychological well-being, and had more positive educational outcomes.4 Despite this, we know that most LGBTQ students report hearing homophobic remarks and negative remarks about gender expression from teachers and school staff.⁵ Even when teachers and school staff are not the ones using biased language, many LGBTQ students report that adults in their schools do not intervene when they hear anti-LGBTQ language used in schools.⁶ Additionally, in the 2019 NSCS, less

than half of students reported that they reported victimization to school staff. When students did report these incidents, the most common responses by school staff were telling the student to ignore the victimization, or taking no action all. Although these results about teachers' inaction initially suggest that staff do not care about LGBTQ students, most students can identify at least one LGBTQ-supportive educator in their school. However, it is possible that teachers are not properly trained in how to address these issues. Despite best intentions, teachers must be informed of the best practices in intervening in LGBTQ related harassment and assault.

Student experiences are shaped by what they learn in the classroom and LGBTQ students in schools where they learn about positive representations of LGBTQ people, history, and events, do better in school, have higher educational aspirations, greater school belonging, and are also more likely to report that their peers are accepting of LGBTQ people.8 However, only 19.4% LGBTQ students reported being taught positive representation of LGBTQ people, history, or events in their schools, and a similar amount of students (17.0%) reported being taught negative content about LGBTQ topics.9 Though many educators are supportive of their LGBTQ students, it may be that they have not received the adequate tools to properly integrate LGBTQ-related content into their curriculum in order to create more welcoming lessons and classrooms for LGBTQ youth.

Educators who are openly supportive of LGBTQ people and who positively include LGBTQ topics in their curriculum are critical to ensuring safe and affirming schools for all students. However, in order for teachers to create a more positive school climate, they need to have the tools and preparation to do so. Yet, very little is known about the extent to which teacher education programs, or graduate programs that prepare pre-service educators for their professional careers as teachers. address LGBTQ issues. What research does exist shows that though the vast majority of teachers do feel a strong obligation to ensure a safe and supportive learning environment for their LGBTQ students, many teachers are not prepared to act on this responsibility. ¹⁰ Many pre-service teachers hold positive personal attitudes about LGBTQ people but hesitate to integrate this support into their teaching out of fear of pushback from staff and parents. 11 Additionally, in general pre-service

teachers are less confident in their abilities to work with transgender students than with LGBQ students. ¹² If not trained properly in their teacher education programs, pre-service teachers will enter their classrooms unprepared and perhaps unwilling to integrate LGBTQ topics into their teaching.

Research has also shown that U.S. teachers may be misinformed on issues of sexual orientation and gender identity and unprepared to support LGBTQ students and families in their classrooms. 13 Thus. it is not surprising that some research has found that that many teacher education programs do not adequately prepare teachers to address issues related to bullying, bias, and LGBTQ students in their classrooms. 14 In a national survey, GLSEN research found that less than 1 in 10 teachers received any training or professional development on LGBTQ issues in their teacher education programs. 15 Most teacher education programs require training on diversity, or multicultural teacher education, and this is most commonly the course in which LGBTQ topics are covered. However, in diversity and multicultural training, gender and sexual orientation are a low priority compared to other diversity issues such as race, ethnicity, and language.¹⁶

Prior research has shown that many teacher preparation programs in the U.S. do not cover information about LGBTQ people and issues.¹⁷ When LGBTQ issues are included in teacher preparation courses, the coverage may be woefully insufficient.18 Often, LGBTQ issues are covered with little depth, and students are taught surface skills such as how to reject biased language and how to address LGBTQ-related questions when raised by students. 19 Teachers are often not prepared to take active steps to interrupt heterosexism in their classroom and to reduce prejudice toward LGBTQ people.²⁰ In addition to the lack of depth of LGBTQ issues, some teacher preparation programs also frame LGBTQ issues as problematic, only in the context of victimization and self-destructive behaviors, without presenting information about positive LGBTQ life experiences, like romantic relationships and family formation.²¹ Thus, pre-service teachers

can often be left with skewed impressions of LGBTQ people – as people who only engage in risky behavior or whose lives are defined by harassment and bullying. While issues related to sexual orientation or the experiences of LGBQ students are rarely presented positively in teacher education curricula and materials, it is even rarer to find any representation, positive or negative, of gender identity issues and transgender people.²²

Although the research that exists provides valuable descriptions of pedagogy and information about the state of LGBTQ inclusion in teacher preparation education, empirical research on the topic is less common. The empirical studies that have been done have had a narrow scope, for example, studying only textbooks, or curricular materials. Additionally, they have had small and/or nonrepresentative samples, and there is no national or holistic data on the extent to which teacher educators (in other words, those who teach courses in colleges and universities that prepare pre-service educators) incorporate LGBTQ issues into their teaching. There is little evidence-based information on what would be helpful to teacher educators in their attempts to address LGBTQ issues.

To help fill the gap in the literature, GLSEN partnered with the Association of College and Teacher Education (AACTE) and the Association of Teacher Educators (ATE) on a national study of preservice educators. The purpose of this study was to further our understanding of the state of teacher preparation education on LGBTQ issues through a national research study of teacher educators. In this study, we assessed: a) teacher educators' attitudes and beliefs about the inclusion of LGBTQ issues in their teacher education courses; b) how they were prepared in their training to include LGBTQ people and issues in their work as teacher educators; c) the actual LGBTQ-inclusive practices they engage in in their teaching; and d) the barriers they face in engaging in this kind of teaching. We further examined how these factors influence each other, and what leads to more inclusion of LGBTQrelated content in teacher educators' teaching practice.

METHODS AND SAMPLE

GLSEN Research Institute, in partnership with the American Association of College for Teacher Education (AACTE), conducted this research via a national survey of teacher educators regarding their experiences as education professionals regarding LGBTQ topics in curriculum and pedagogy. The GLSEN Research Institute – in collaboration with partner organizations and other educational experts on LGBTQ issues in schools – developed the survey instrument (see the appendix for the complete survey instrument), which involved a review of existing instruments related to teacher education and LGBTQ topics in schools, a formative workshop on this topic held at AACTE's annual meeting, and interviews with key informants. Items and scales were adapted from multiple surveys used in previous research by GLSEN and by other experts in the field of teacher education, examining the perspectives and competencies of school staff and administration²³ and multicultural teacher educators.²⁴ Finally, experts in the field reviewed the instrument.

In addition to collecting data on general demographic, professional, and institution characteristics, the survey was designed to assess the following information related to teacher educators' LGBTQ-related work experiences: attitudes and beliefs about LGBTQ-inclusive work, LGBTQ-related practices in teacher education, barriers in engaging in LGBTQ work, and graduate training and professional development activities.

The survey was administered via the internet to teacher educators, deans, or program coordinators of teacher education programs. From March to September 2016, we invited teacher educators to participate in the survey using three methods:

 The GLSEN Research Institute reached out to 32 professional organizations for teacher educators and other related professions, and 9 organizations agreed to disseminate the survey through their channels, including emails to constituencies and members, social media posts, and announcements on the organizations' websites. The outreach through professional organizations accounted for 54.1% of the final sample.

- A list of over 800 schools and programs of education in the US was created, and 150 institutions were randomly selected.
 Department chairs and/or deans at these programs were contacted and ask to share the survey with their students. This method resulted in 10 programs sharing the survey, and accounted for 43.7% of our final sample.
- Advertisements on social media (e.g. Facebook, Google) were targeted to teacher educators. This resulted in 2.2% of the final sample.

As an incentive to take the survey, participants were able to enter a lottery drawing to win their choice of a \$100 dollar Amazon gift card or AACTE conference registration.

The final sample consisted of 584 teacher educators from colleges and universities in 45 states and the District of Columbia. Demographic, professional, and institution setting characteristics of the entire sample are presented in Tables M.1 and M.2. The majority of the sample was white (87.1%), heterosexual (83.0%), and/or cisgender²⁵ female (76.8%). Most teacher educators had doctorate degrees (81.1%), and two-thirds were faculty members - either tenured (42.8%) or tenure-track faculty (24.4%). Over two-thirds of respondents worked at state colleges or universities (68.3%) and most taught undergraduate (80.0%) students. The average age of respondents was 50.3 years and most respondents had over 6 years of experience as a teacher educator (69.5%).

Table M.1 Demographic Characteristics							
Sexual Orientation (n=528)	n	%	Region (n=574)	п	%		
Straight/Heterosexual	438	83.0%	Northeast	133	23.2%		
Gay/Lesbian	60	11.4%	Midwest	169	29.4%		
Bisexual	19	3.6%	South	196	34.2%		
Queer	10	1.9%	West	76	13.2%		
Other	1	0.2%	Race and Ethnicity (n=550)				
Gender (n=535)			White	479	87.1%		
Cisgender Female	411	76.8%	African American or Black	27	4.9%		
Cisgender Male	116	21.7%	Hispanic or Latinx, 91 any race	23	4.2%		
Transgender/Genderqueer	8	1.5%	Asian	12	2.2%		
Average Age (n=55) = 50.3 ye	ars		Native American, American Indian, Alaska Native	9	1.6%		
			South Asian (Asian Indian, Bangladeshi, Sri Lankan)	5	0.9%		
			Middle Eastern/Arab	3	0.6%		
			Alaska Native				
			Other Race/ethnicity	4	0.7%		

Table M.2 Professional and Setting Characteristics						
Institution Type (n=584)*	п	%	School Level Taught (n=575)*	n	%	
Research University	191	32.8%	Early Childhood	192	33.4%	
Liberal Arts College	159	34.3%	Elementary School	431	75.0%	
State College or University	256	68.3%	Middle School	408	71.0%	
Community or Technical College	5	4.0%	High School	371	64.5%	
For-Profit Institution	14	11.4%	Other	31	5.4%	
Religious-Affiliated Institution	91	82.7%				
Other	3	0.5%	Highest Degree (n=582)			
D T E	0.4*		Bachelors	2	0.3%	
Role in Teacher Education (n=5		40.00/	Masters	104	17.9%	
Tenured Faculty	249	42.8%	Doctorate	472	81.1%	
Tenure-Track Faculty	142	24.4%	Other Degree	4	0.7%	
Other Faculty	81	13.9%				
Adjunct Instructor/Faculty	59	10.1%	Years of Experience (n=583)			
Graduate Teaching Assistant	26	4.5%	Less than 1 year	12	2.6%	
Dean or Administrator	42	7.2%	1 to 2 years	43	7.4%	
Program Director or Coordinator	104	17.8%	3 to 5 years	120	20.6%	
Clinical Supervisor	62	10.6%	6 to 10 years	134	23.0%	
Other	18	3.1%	More than 10 years	271	46.5%	
Level of Students Taught (n=58	4)*		Alternative Certification Studen	ts (n=5	84)	
Undergraduate Associates	11	1.9%	None	489	83.7%	
Undergraduate Bachelors	466	79.8%	Some	83	14.2%	
Graduate Masters	378	64.7%	Most or All	12	2.1%	
Graduate Doctoral	68	11.6%				
Initial Certification	366	62.7%				
Advanced Training, Programs, or Certification	187	32.0%				

 $[\]ensuremath{^*}$ Participants could choose more than one response. Percentages add up to more than 100%.

PART ONE: ATTITUDES AND BELIEFS ABOUT LGBTQ-INCLUSIVE TEACHING

In order to ensure that teachers are entering the classroom with the skills and knowledge necessary to address LGBTQ topics and create safe and affirming environments for their LGBTQ students, pre-service teachers should receive LGBTQrelated training and preparation in their graduate programs. To date there are no national regulations or standards requiring that LGBTQ-related content be taught in teacher preparation or education graduate programs. Without such, the inclusion of LGBTQ-related content in pre-service education would then be dependent on inclusion by the school or program or by the initiative of the individual teacher educators themselves. Thus, the teacher educators' own attitudes and beliefs could be an important factor influencing LGBTQ inclusion in their teaching — teacher educators with positive attitudes and beliefs about LGBTQ inclusion in education programs may be more likely to include this kind of teaching in their own courses. Therefore, we assessed teacher educators' attitudes and beliefs about their work preparing current and future educators for LGBTQ-inclusive teaching.

Teacher educators who view teaching LGBTQrelated content as important and valuable may be more likely to include such content in their own courses. Thus, we explored the level of perceived importance of LGBTQ-related content overall among teacher educators. In addition to LGBTQrelated content specifically, we also examined the importance of certain other courses or curricular content areas that we believe would be prime loci for the inclusion of LGBTQ student issues. Diversity and sociocultural topics, including multicultural education (MCE), social justice/equity, and gender issues, provide ample opportunities to raise LGBTQ issues in teaching. Additionally, more traditional areas of teaching that address interpersonal skills, such as classroom management, character education, and socio-emotional development may also easily allow for the discussion of LGBTQ issues.

Attitudes About Diversity and Sociocultural Topics and LGBTQ-Inclusive Teaching

As shown in Figure 1.1, the majority of teacher educators rated all the content areas as "very important," with the exception of character education. Nevertheless, there were some significant differences across the areas in level of importance. ²⁶ Teacher educators rated multicultural education and diversity higher in importance than all content other areas with nearly 9 in 10 teacher educators (87.6%) reporting that it was very important for

their pre-service students to be taught this topic. Most teacher educators also reported that it was very important for their students to learn content related to social justice and equity (82.0%), classroom management (78.9%), and socioemotional development (74.1%). However, a smaller percentage (56.8%) of teacher educators reported that it was very important for their pre-service students to learn LGBTQ content. In fact, learning about LGBTQ content was rated lower in importance than all other topics, except for character education.

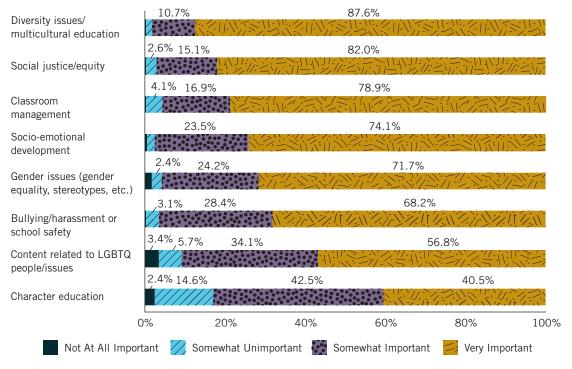
Even though LGBTQ content was lower in priority compared to other diversity and sociocultural topics, a majority of teacher educators nevertheless believed this content was very important for their students to learn. To better understand specifically what LGBTQ-related content teacher educators valued, we asked teacher educators how important they thought it was to equip their students with various LGBTQ-related skills and knowledge. As shown in Figure 1.2, the vast majority of teacher educators (94.7%) rated equipping pre-service teachers with the skills and knowledge to teach their students about respecting all as the most important, with almost all teacher educators responding that this topic was "very important". Of LGBTQ specific skills and knowledge, as shown in Figure 1.2, teacher educators rated skills and knowledge to intervene in anti-LGBTQ remarks as the most important (82.4% reporting "very important") followed by skills and knowledge to use LGBTQ-inclusive language (63.0%), and to advocate for changes in their school's LGBTQ inclusivity (58.2%). Teacher educators rated providing skills and knowledge to assess their school climate for LGBTQ issues (42.7%) and including information on LGBTQ people and issues in their teaching and curriculum (42.0%) as the least important topics for their students.²⁷

Confidence in Engaging in LGBTQ-Inclusive Teaching

In addition to teacher educators' attitudes and beliefs about the importance of teaching certain topics, their self-efficacy, or their belief in their abilities to engage in certain teaching practices, may also influence actual teaching behaviors. Thus, we examined teacher educators' confidence engaging in LGBTQ-related teaching practices.

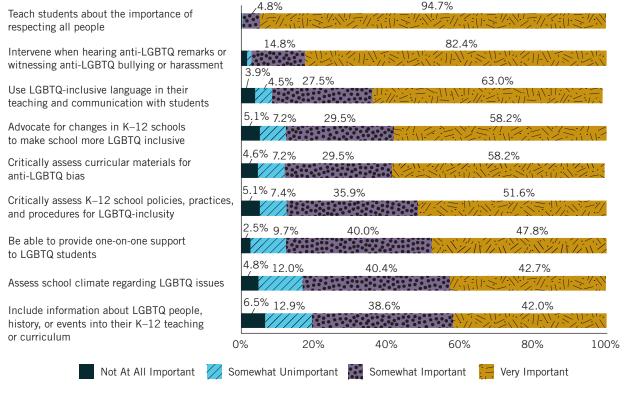
As shown in Figure 1.3, teacher educators were most confident intervening when hearing anti-LGBTQ remarks or witnessing anti-LGBTQ bullying

Figure 1.1 Teacher Educators' Ratings of Importance of Their Students Learning Various Content Areas in Teacher Education



Note: Percentages not shown for values under 2%.

Figure 1.2 Teacher Educators' Ratings of Importance of Equipping Their Students with LGBTQ-Specific Skills and Knowledge



Note: Percentages not shown for values under 2%.

or harassment, and using culturally sensitive terminology related to lesbian, gay, and bisexual people and topics (48.6% and 42.4% reporting "very confident," respectively).²⁸ Over a third of teacher educators were also very confident in challenging their future students to consider their own LGBTQ bias (38.7%), and recognizing anti-LGBTQ bias in education practice and materials (35.3%). Teacher educators were least confident in teaching other educators how to support LGBTQ students (25.5%) and answering questions from their students about LGBTQ people and issues (23.6%). Overall, there was no single teaching practice with which the majority of teacher educators reporting feeling very confident. Even with the two highest rated practices, intervention in anti-LGBTQ bullying and using appropriate LGBTQ terminology, less than half of our respondents reported being very confident.

Personal Demographic and Institutional Differences in Attitudes and Beliefs

With regard to classroom teachers, previous GLSEN research suggests that secondary school may be more comfortable responding to student questions about LGBTQ issues than elementary

school teachers.²⁹ Thus, it is possible that teacher educators' attitudes and beliefs vary based on the level of school they prepare their students to teach. We examined differences among teacher educators who exclusively taught elementary education (i.e., current and pre-service elementary school educators), those who exclusively taught secondary education (i.e., current and pre-service secondary school educators), and those who taught both. Although there was no difference between these three groups in their attitudes and beliefs about the importance to equip students with LGBTQ-related skills and knowledge, there were differences in their level of confidence by school level. Teacher educators who exclusively taught elementary education were less confident engaging in LGBTQinclusive teaching than those teacher educators who exclusively taught secondary education.³⁰ Thus, even though elementary level teacher educators did not believe it was less important to teach their students LGBTQ content and skills, they were less confident engaging in LGBTQ-related practices in their own teaching than teacher educators who teach future and current middle and high school teachers.

We also examined whether attitudes and beliefs about LGBTQ-inclusive teaching varied by the

Figure 1.3 Teacher Educators' Confidence Engaging in LGBTQ-Related Practices

Intervene in anti-LGBTQ langauge and behaviors of their students

Use culturally sensitive terminology when talking with or about lesbian, gay, and bisexual people

Challenge students to consider their own biases as they relate to LGBTQ people

Use LGBTQ-inclusive language and practices in my teaching

Recognize anti-LGBTQ bias in education practices and materials

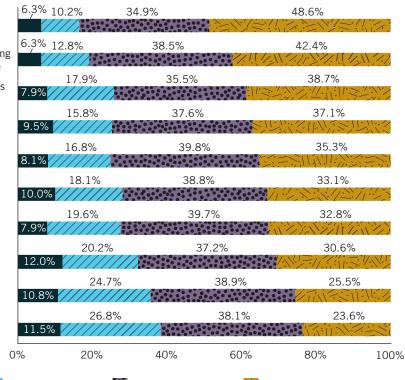
Provide direct support to LGBTQ students

Use culturally sensitive terminology when talking with or about transgender people

Include LGBTQ content in their teacher education preparation courses

Teach future educators about how to support LGBTQ students

Answer questions about LGBTQ issues/people from students





Not At All Confident Not Very Confident



Somewhat Confident Very Confident



types of courses or subjects that teacher educators taught. Teacher educators who taught courses on multicultural education and diversity, sociocultural foundations, and methods and pedagogy were more likely to report that it was important to equip their students with LGBTQ-related skills and knowledge than teacher educators who did not teach these classes.31 Additionally, those who taught subject specific methods courses were less likely to report that it was important to equip their students with these skills than those who did not.32 In regard to confidence engaging in LGBTQ-inclusive practices, teacher educators who taught multicultural education and diversity courses, as well as those who taught educational psychology classes, were more confident than those who did not teach these courses.33

Attitudes and beliefs with regard to LGBTQ inclusion may also vary by the type of institution where teacher educators taught. Religious higher education institutions may be more likely to have policies and practices that discriminate against LGBTQ educators and students. For example, at some religious colleges and universities, faculty and students are forbidden for being out, and at others, students are prohibited from forming LGBTQ groups on campus.34 Additionally, teacher educators with specific religious values including attitudes and beliefs about LGBTQ people and issues and may be more drawn to religious institutions that share those values. Thus, we examined differences in the sample by whether teacher educators taught at a religious institution or not. We found, in fact, that teacher educators at religious institutions were less likely to report that it was important to equip students with LGBTQ-related knowledge and skills, and were less confident engaging in LGBTQ-inclusive practices than those who did not teach at religious institutions.35

Conclusion

While most teacher educators believe it is somewhat or very important for their students to learn LGBTQ content in their teacher preparation programs, LGBTQ content was a low priority compared to other topics such as, multicultural education and diversity, social justice and equity, classroom management, socio-emotional

development, bullying and harassment, and school safety. When considering LGBTQ-specific skills and knowledge, interpersonal skills, such as intervening when witnessing anti-LGBTQ bullying and harassment or hearing anti-LGBTQ remarks and being able to use LGBTQ-inclusive language, were more important to teacher educators than skills that involved school structures and systems, such assessing school climate regarding LGBTQ issues and including information about LGBTQ people, history, or events into their curriculum. Teacher educators believed it was important for pre-service teachers to learn LGBTQ-related skills but most were not very confident engaging in LGBTQ-related practices in their own teaching of pre-service teachers.

Attitudes and beliefs about LGBTQ-related content in pre-service education differed by some professional characteristics. Teacher educators who prepared pre-service teachers for work in secondary schools were more confident engaging in LGBTQ-related practices in their teaching than were those who prepared pre-service teachers for elementary schools. Even though it is important to prepare teachers of all levels to engage in LGBTQ-inclusive teaching, these results suggest that there is an even higher need among elementary teacher educators.

These findings also provide useful information for furthering LGBTQ content inclusion in teacher education programs. We found that teacher educators who taught multicultural education and diversity courses had the most positive attitudes and beliefs about the importance for pre-service teachers to learn LGBTQ-related skills and knowledge, and they also had higher confidence engaging in LGBTQ-related work. Thus, multicultural and diversity courses are a prime candidate for LGBTQ inclusion in teacher education. We also found that teacher educators who taught at religious institutions believed LGBTQ-related skills and knowledge were less important for pre-service teachers to learn than those who taught at secular institutions, which may indicate a greater need for professional development for teacher educators on LGBTQ content and for advocating for the inclusion of LGBTQ issues in the standard teacher education curriculum.

PART TWO:
LGBTQ-RELATED
PROFESSIONAL
PREPARATION
AND
RESOURCES

The preparation, or lack thereof, teacher educators receive in their own careers may influence how they prepare their pre-service teachers to include LGBTQ-related content in their teaching. To this end, we asked teacher educators about their own LGBTQ-related professional development experiences, including where they received training and in what content areas. Additionally, we asked about what has been useful in their development as a teacher educator, both in general and in regard to LGBTQ-related teaching.

Influences on Teacher Educators' Practice

In order to understand what has been most influential in their own development as a teacher educator, we asked participants about the importance of key influences in their professional journey. As shown in Figure 2.1, teacher educators were most influenced by their own experiences as a K–12 educator, their own experiences, other post-secondary education, and reading professional journals and publications. Teacher educators were least influenced by in-service professional development as a K–12 educator, formal professional development as teacher, and the policies or practices of the schools where their students are placed.³⁶

Setting and Content of LGBTQ-Related Professional Development Received by Teacher Educators

As discussed above, teacher educators reported being most influenced by their experiences as an educator and their post-secondary education. Yet we know from a GLSEN national survey of secondary school teachers that most had not been exposed to LGBTQ student issues in their education or during their professional practice.³⁷ Thus, in order to understand the degree of knowledge and experience of teacher educators regarding LGBTQ student issues, we asked participants if they had exposure to this content in their graduate education, in-service professional development, or some other setting. Over three quarters (76.0%) of teacher educators reported receiving any professional development in LGBTQrelated topics (either in undergraduate or graduate school, in their current or former professional institutions, or somewhere else). As shown in Figure 2.2, only 3 in 10 teacher educators (34.3%) received this kind of training in their in-service training. Further, teacher educators

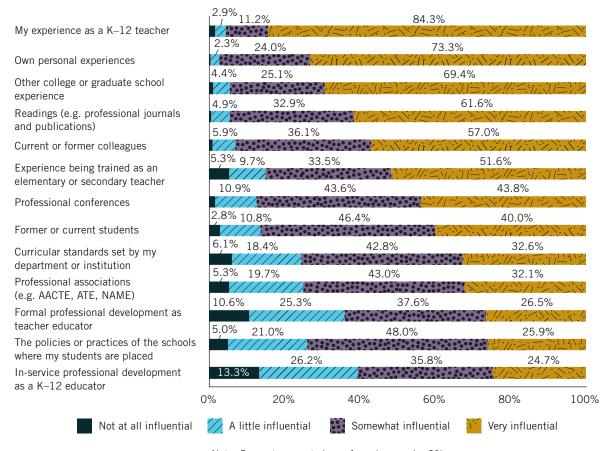
were not more likely to have received professional development in other settings, such as in-service trainings.³⁸

We further asked teacher educators who had received LGBTQ-related training about the content areas this training covered. As shown in Figure 2.3, the most common kind of LGBTQ-related training teacher educators received was about family diversity and different family structures (65.1%). Teacher educators received significantly less training on topics that were explicitly about LGBTQ topics, as shown in Figure 2.3.39 For most of these LGBTQ topics, less than half of teacher educators received any training. In particular, teacher educators received little training in topics that had to do with assessing and including LGBTQ content into curriculum. As shown in Figure 2.3, a third or fewer reported that they had had professional development on including LGBTQ topics in the curriculum, inclusion of LGBTQ history, and assessing curricular materials for LGBTQ-related bias.

With regard to professional development related to family diversity, it is important to note that it was the only topic in the list provided that was not specifically LGBTQ-related. Although discussion of family diversity should include LGBTQ families, it is possible to talk about family diversity without LGBTQ inclusion, instead focusing on things like single-parent families, adoption, and mixed-race families. Thus, we cannot be certain that those who reported this type of training were taught about families with LGBTQ members.

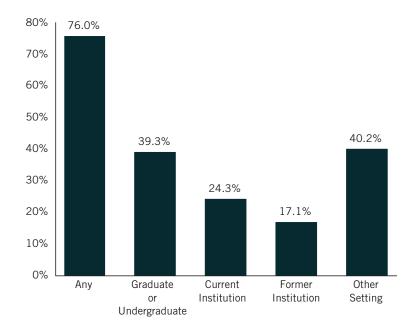
Across the different types of LGBTQ-related PD content, some topics were more commonly covered in pre-service training and others were more common in in-service training. Specifically, training on family diversity, queer and gender theory, sexual identity development, and gender identity and transgender identity development were more likely to be addressed in pre-service training, i.e., while teacher educators were in undergraduate and graduate school (see Figure 2.4).40 In contrast, ways to support LGB youth, ways to support transgender youth, and intervention in anti-LGBTQ language were more likely to be addressed through in-service training, i.e., training provided or mandated by their current or previous teaching institution (see Figure 2.4).41 It is important to note that for several content areas, training was more likely to come from other sources, such as an

Figure 2.1 Influences on Teacher Educators' Practice



Note: Percentages not shown for values under 2%.

Figure 2.2 Setting of Teacher Educators' Own LGBTQ-Related Professional Development



academic conference or a community training (not in their current or previous institutions or schools), rather than from pre-service or in-service training. ⁴² For example, training on including LGBTQ content in curriculum was most commonly received from other sources.

In order to understand what would be the most influential pathways for reaching teacher educators, we asked participants to rank their main sources of information regarding LGBTQ topics, including readings, colleagues, students, and training and experiences in K–12 teaching and teacher education experiences. As shown in Figure 2.5, teacher educators rated readings as the most influential source of LGBTQ-related information, followed by colleagues, and current and former students.⁴³ Policies and practices of any student field placement or cooperating districts was the least influential.

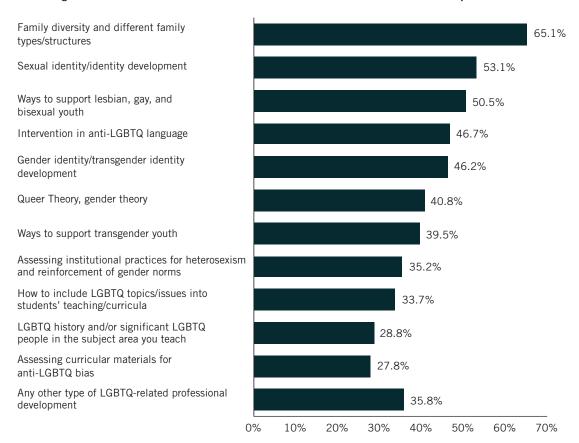
Notably, teacher educators ranked professional development received in their role as a teacher educator as more influential than professional

development received in their role as K–12 educators, although neither one was highly rated as influential. However, not all teacher educators may have experience as K–12 classroom teachers, so we cannot know whether this difference was about relative influence or also related to past career experiences. Nevertheless, our data also show that the majority of teacher educators received no LGBTQ-related professional development in their pre-service or in-service training.

Conclusion

Teacher educators, in general, believe that their own experiences were the most influential in their development as a teacher educator. These experiences included their past K–12 teaching experience, their secondary education, and personal experiences outside of their professional and educational life. However, when asked specifically about LGBTQ-related topics, teacher educators found readings, colleagues, and current and former students as the most influential, suggesting that a lack of formal resources and

Figure 2.3 Content of Teacher Educators' Own LGBTQ-Related Professional Development



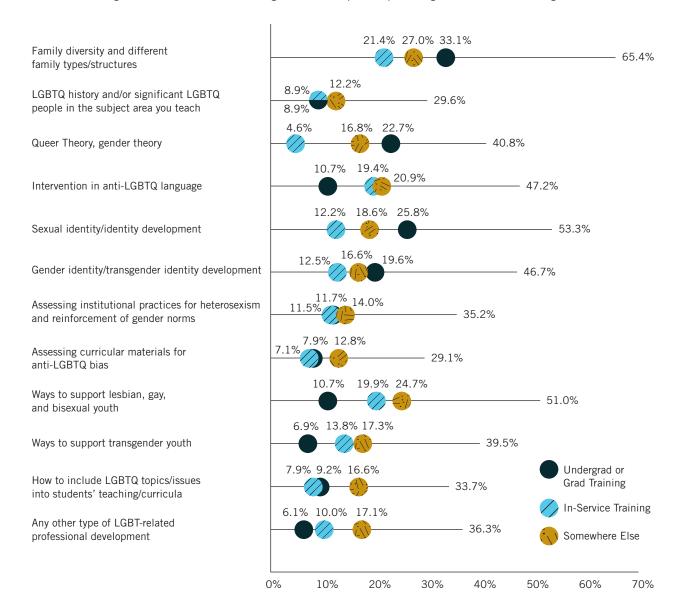
training may lead teacher educators to self-directed informal learning about these topics. Though teacher educators reported that PD, both in pre-service and in-service, were less influential than other resources, this could be because many are not receiving LGBTQ-related PD in either of these venues.

Though most teacher educators reported that they had been exposed to training on LGBTQ content at some point in their education or professional career, the majority did not receive professional development in their in-service training. We

investigated what LGBTQ-related topics were covered in PD, and found that family diversity, which could be taught without any mention of LGBTQ people, was the most commonly reported topic. In contrast, LGBTQ-specific topics were much less common, and in general, less than half of the teacher educators in our sample reported receiving training on most of these LGBTQ-specific topics. Further, it was even less common for teacher educators to have received training on curriculum – how to include LGBTQ content in curriculum, and how to assess their curricula for anti-LGBTQ bias.

Figure 2.4 Teacher Educators' LGBTQ-Related Professional Development

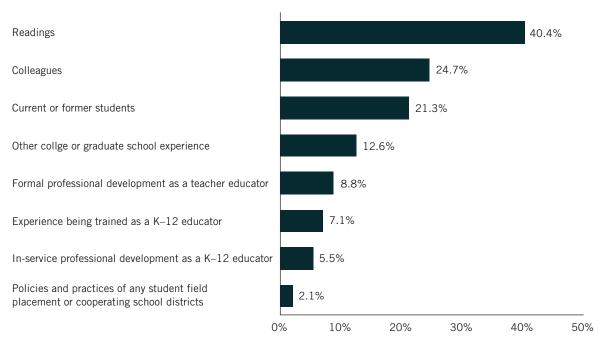
(Percentage of teacher educators receiving PD in each topic and percentages of where that training was received)



Our results show that teacher educators receive little formal training on LGBTQ-specific topics. It is possible that this lack of formal LGBTQ-related training could lead teacher educators to seek out more informal learning on LGBTQ issues on their own, such as reading books and papers about LGBTQ topics, consulting their colleagues with more knowledge and experience, and by learning from their students. Although this may provide opportunities for national experts in LGBTQ issues in education to provide valuable resources and training to teacher educators, it also

highlights need for higher education administrators to proactively include this important content into course offerings, and to provide policy and guidance on inclusion of LGBTQ issues, as well as other diversity and multicultural content. Given by 2020, several states have policies about LGBTQ content in K–12 curriculum,⁴⁴ it is an important time for teacher educators and departments and schools of education in higher education to proactively prepare their future teachers for these content areas.

Figure 2.5 Most Influential Sources of LGBTQ-Related Information or Preparation



PART THREE: ENGAGEMENT IN LGBTQ-INCLUSIVE PRACTICES

In addition to teacher educators' LGBTQ-related attitudes and beliefs and preparation, we also wanted to understand if and how teacher educators actually engaged in LGBTQ-inclusive teaching. We asked teacher educators about their LGBTQ-inclusive teaching practices, including the LGBTQ content they included, in which courses this content was included, and what instructional methods they used.

Inclusion of Diversity and Sociocultural Topics and Content

Diversity and sociocultural topics, such as social justice/equity issues and socio-emotional development, are promising places to include LGBTQ topics. However, previous research suggests that LGBTQ topics are given low priority compared to other topics in diversity and multicultural teacher education.⁴⁵ To further explore the relationship between LGBTQ content and more general diversity and sociocultural topics, we asked teacher educators about their inclusion of both types of topics.

The vast majority of teacher educators incorporated topics related to general diversity and sociocultural issues in their courses. As shown in Figure 3.1, the most commonly included topics reported were diversity issues and multicultural education (90.9%) and social justice/equity issues (88.1%).46 In addition, many teacher educators also reported including topics such as family diversity, bullying and harassment and school safety, classroom management, socio-emotional development, and gender issues (i.e. gender differences and stereotypes). Although each of these content areas would be prime locations for the inclusion of LGBTQ content, it is not a guarantee as they all could be taught without any mention of LGBTQ topics and issues. For example, a teacher educator could teach about bullying and harassment without ever discussing bias-based bullying in general or anti-LGBTQ bullying specifically. Teacher educators reported incorporating general diversity and sociocultural issues in their teaching more than any LGBTQ-specific topic.47

Inclusion of LGBTQ- Specific Topics and Content

In addition to general sociocultural issues, we also asked teacher educators about their inclusion of LGBTQ-specific topics and content. Most teacher educators (80.1%) reported that they included

LGBTQ content in their courses (Figure 3.2). Teacher educators were most likely to teach preservice teachers about ways to support lesbian, gay, and bisexual youth, sexual identity and development, and intervention in anti-LGBTQ language (Figure 3.1).⁴⁸ Topics that were less frequently incorporated in teacher educators' teaching were topics related to transgender youth and identity, assessing curriculum and institutional practices with a lens toward LGBTQ bias, and LGBTQ curricular inclusion (Figure 3.1). Even though most teacher educators included LGBTQ-related content in their courses, it is important to note that about 1 in 5 teacher educators did not include LGBTQ content at all.

Of those who included LGBTQ content in their courses, teacher educators were most likely to teach this content in multicultural, diversity, and equity education courses (Figure 3.3) — 39.3% reported including LGBTQ content frequently in this type of course. ⁴⁹ The majority of teacher educators also reported including LGBTQ content in sociocultural foundations and child or adolescent development courses, with 59.1% and 55.2% reporting including it somewhat to frequently throughout the course, respectively (see also Figure 3.3).

Instructional Methods and Resources for LGBTQ-Inclusive Teaching

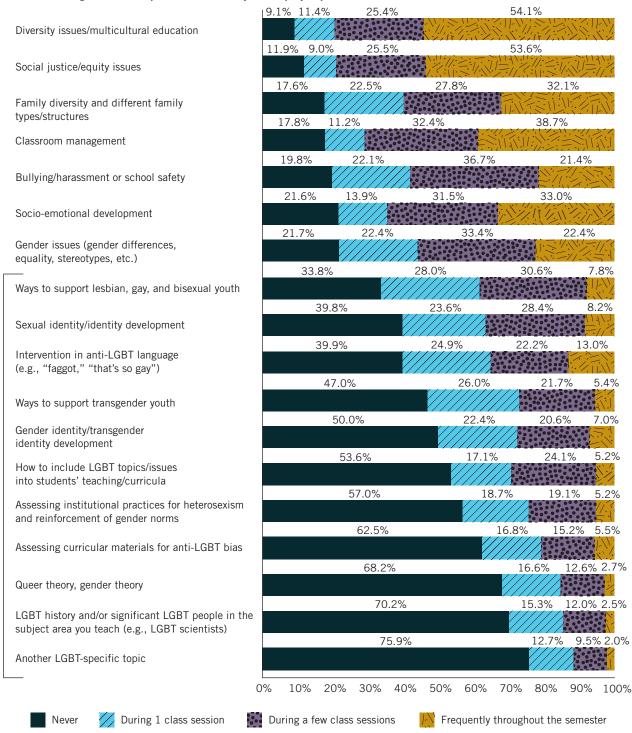
In addition to understanding the content areas in which LGBTQ issues were included, knowing the most commonly used instructional methods could help inform future curriculum development for the field. Thus, we asked those teacher educators who had included LGBTQ content in their teaching about the instructional methods they used and about the instructional materials they thought would be most helpful in engaging in this kind of teaching. As shown in Figure 3.4, teacher educators were most likely to include LGBTQ content through class discussions and interactive activities. Nearly three-quarters (70.6%) of teacher educators employed this method, more than any other type of instructional methods (Figure 3.4).50 Including LGBTQ content through readings (books, articles, etc.) was also common, with 61.9% of teacher educators reporting this instructional method.⁵¹

Figure 3.5 shows the degree to which teacher educators found certain resources helpful for including LGBTQ-related content in their curricula,

of those who had included LGBTQ-related content. Overall, teacher educators found all of the resources helpful to some degree (see Figure 3.5). However, there were significant differences in ratings across the types of resource.⁵² Teacher educators found publications (e.g., journals and books), their own students in their teacher

education courses, and their colleagues to be the most helpful, with 7 out of 10 reporting these were somewhat or very helpful. In contrast, teacher educators found curricular standards or syllabi from their institution or department significantly less helpful than all other resources.

Figure 3.1 Incorporation of Diversity and Equity Topics in Teacher Educators' Most Recent Course



-GBTQ-specific topic

Figure 3.2 Inclusion of LGBTQ-Related Content in Any Courses

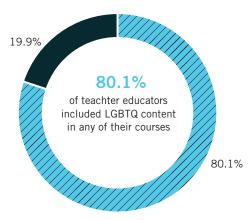


Figure 3.3 Teacher Educators' Inclusion of LGBTQ Content in Various Courses

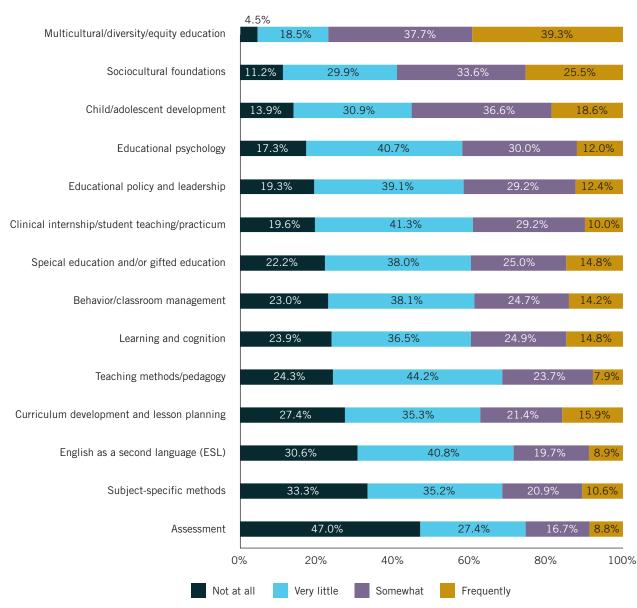


Figure 3.4 Instructional Methods Used by Teacher Educators to Address LGBTQ Topics in Classes

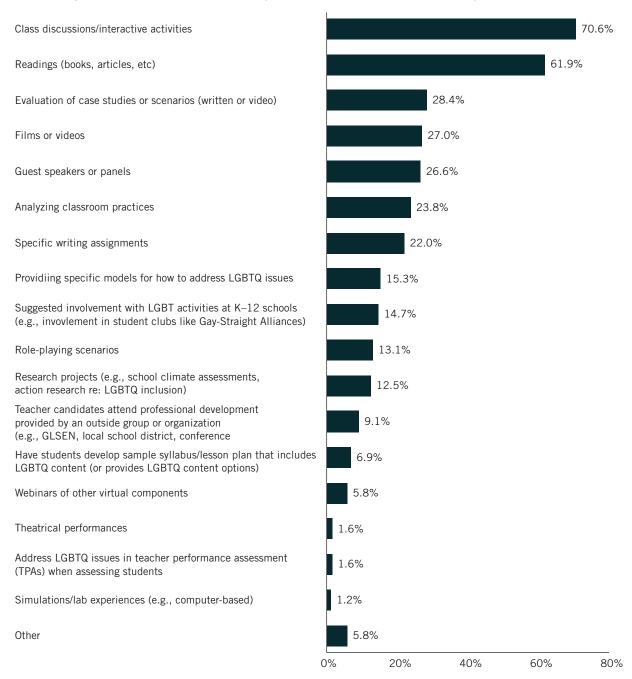
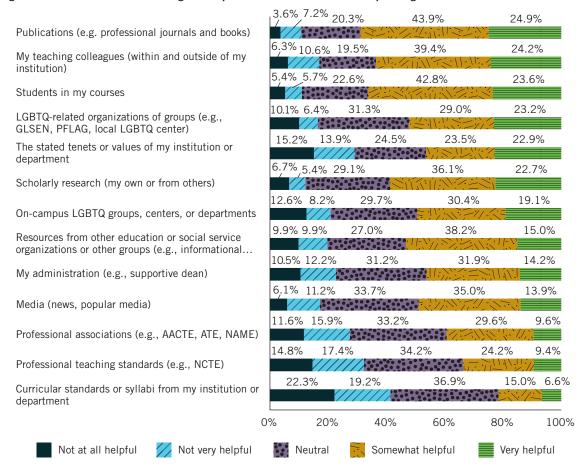


Figure 3.5 Teacher Educators' Ratings of Helpfulness of Resources for Incorporating LGBTQ-Related Content in Teaching



LGBTQ-Supportive Activities and Advocacy Outside of the Classroom

LGBTQ-related work in teacher education programs is not just relegated to the classroom or curriculum, and teacher educators can engage in LGBTQ-supportive activities through campus activities and organizations, in work with students outside the classroom, and in their own training. However, among the teacher educators in this study, less than a third of teacher educators engaged in LGBTQ-supportive activities outside of the classroom. As shown in Figure 3.6, among the minority of those who had, the most commonly reported LGBTQ-supportive activities were displaying a visual sign of support for LGBTQ people in their office or other space where they meet students (27.3%), attending a training designed to create and maintain supportive

spaces for LGBTQ spaces, such as Safe Zone or Safe Space training (24.7%), and mentoring or providing support to LGBTQ pre-service teachers (23.0%).⁵³ The least common activities were addressing LGBTQ issues in their own research and scholarship (14.8%), supporting or advising an LGBTQ student group at their institution (11.3%), or providing professional development for colleagues on LGBTQ issues (11.0%).⁵⁴

In addition to LGBTQ-supportive activities, some teacher educators engaged in LGBTQ advocacy both inside and outside of their institution (see Figure 3.7). For example, 17.4% of teacher educators engaged in advocacy or community service related to an LGBTQ issue or cause, and 14.7% advocated for the inclusion of LGBTQ-related topics in their institution's teacher education programs curriculum or course content.

Figure 3.6 Teacher Educators' Engagement in LGBTQ-Related Activities

Displayed any type of visual signs of support for LGBTQ people in your office or area where you meet students (e.g.

Attended a traning designated to create and maintain supportive spaces for LGBTQ people (e.g. Safe Zone, Safe Safe Space poster, gay pride sticker, etc.)

Mentored or provided support to LGBTQ teacher candidates

Participated in activities through an LGBTQ Center or LGBTStudies Program on campus

Addressed LGBTQ issues in my own research or scholarship

Supported or advised an LGBTQ student group at your institution

Provided professional development for colleagues on LGBTQ issues

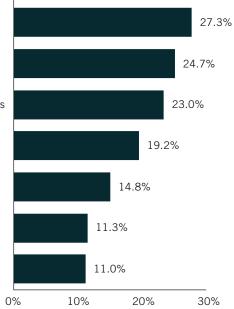
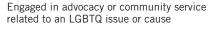


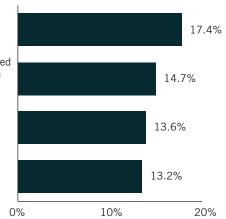
Figure 3.7 Teacher Educators' Engagement in LGBTQ-Related Advocacy



Advocated for the inclusion of LGBTQ-related topics in my institution's teacher education preparation program curriculum or course content

Advocated for LGBTQ-inclusive policies at my institution (e.g. discrimination policies, housing policies)

Advocated for the needs of LGBTQ teacher candidates



Personal Demographic and Institutional Differences in Inclusion and Action

Inclusion. As discussed earlier, teacher educators were more likely to include general diversity and sociocultural topics in their courses than they were to include LGBTQ-specific topics. There were also differences in inclusion of these two categories of topics based on various personal and professional demographics. With regard to diversity and sociocultural issues, there was a significant difference in inclusion based on gender, with cisgender females including these topics more than cisgender males⁵⁵ but there was no difference by LGBTQ status.⁵⁶ However, in regard to inclusion

of LGBTQ-specific topics, there was an effect of sexual orientation, with LGBTQ teacher educators including these topics more than others,⁵⁷ but there was no effect of gender on inclusion of LGBTQ topics.⁵⁸

There were also some differences in inclusion of diversity and sociocultural topics based on professional and institution characteristics, specifically years of professional experience and the school level that teacher educators prepared their pre-service teachers for (elementary vs. secondary vs. both). Teacher educators' years of experience was not related to inclusion of diversity and sociocultural topics, but was related to the

inclusion of LGBTQ content.⁵⁹ Teachers who had less than a year of experience were less likely to engage in LGBTQ-inclusive teaching than teachers who had 6 or more years of experience.

Additionally, there were no differences in inclusion of diversity and sociocultural topics based on the school level of their pre-service teachers plan to teach, but there were differences in LGBTQinclusion. Specifically, teacher educators who only taught elementary level pre-service teachers (i.e., those who do or will teach elementary school) included LGBTQ topics less than did teacher educators who taught secondary level pre-service teachers and teacher educators who taught both levels. 60 Lastly, diversity and sociocultural inclusion did not differ based on institution type⁶¹, but LGBTQ-inclusion did — teacher educators who taught at state schools were less likely to engage in LGBTQ inclusive practices. 62 Interestingly, although we found that teacher educators at religious institutions thought it was less important to equip their students with the skills to engage in LGBTQ teaching and were less confident engaging in LGBTQ-inclusive teaching themselves than others (see "Attitudes and Beliefs about Preparing Students for LGBTQ-Inclusive Teaching"), they did not differ in actual LGBTQ-inclusive practice than those who did not.

LGBTQ-Supportive Activities and Advocacy. There were additional demographic differences in teacher educators' LGBTQ-oriented activities on campus outside of their teaching and LGBTQ-related advocacy by gender and LGBTQ status.

- Cisgender females engaged in LGBTQ-related activities in their job more frequently than did cisgender males.⁶³
- Younger teacher educators engaged in both LGBTQ-related activities and advocacy more than did older teacher educators.⁶⁴
- LGBTQ teacher educators engaged in LGBTQrelated activities and advocacy more than did teacher educators who were not LGBTQ.⁶⁵

There were also differences in teacher educators' LGBTQ-related activities and advocacy outside of the classroom by institution type. Teacher

educators at research institutions engaged in LGBTQ advocacy more than did teacher educators who did not teach at research institutions, however they did not differ in regard to LGBTQ-related activities. 66

Conclusion

Teacher educators were most likely to include LGBTQ-specific content in multicultural, diversity, and equity education courses. However, even though most teacher educators reported including LGBTQ-related content into their courses, they included LGBTQ topics less frequently than they did more general diversity and sociocultural topics, including multicultural education and social justice/equity issues. Support and guidance must be provided to teacher educators who teach other courses besides multicultural, diversity and equity courses, as these classes are least likely to include LGBTQ content and instructors might struggle with when and how to incorporate LGBTQ topics. Additionally, support and guidance on how to include LGBTQ-related content should also be provided to those who only teach elementary level pre-service teachers as these teacher educators might find LGBTQ content more difficult to include considering the age of elementary students. In addition, teacher educators who do teach multicultural, diversity, and equity courses should also work to ensure that other diversity and sociocultural topics are not prioritized over LGBTQ topics, and that LGBTQ content is included in more general diversity and sociocultural topics when appropriate, such as in instruction about bullying and harassment and family diversity.

When teachers did include LGBTQ-related content, they most often taught about ways to support LGB youth, sexual identity and development, and how to intervene in anti-LGBTQ language, and were least likely to include content about transgender youth and how to assess and include LGBTQ content into curriculum. Clearly, more training on transgender identity and youth who hold such identities is needed among teacher educators. In addition, teacher educators appear to have difficulty critically considering how to assess and alter their courses to include LGBTQ content, and LGBTQ-inclusive curriculum development instruction would be beneficial.

Teacher educators reported that curricular standards or syllabi from their institution as least helpful in incorporating LGBTQ content, suggesting that teacher education programs might not be supportive or encouraging of LGBTQ-inclusive teaching. We also found that teacher educators rarely participated in LGBTQ-related actions and advocacy outside of the classroom, including advising an LGBTQ-group, mentoring LGBTQ teacher candidates, or engaging in LGBTQ related community service. It is possible that teacher educators' institutions and administrations do not prioritize this kind of community service among faculty, leading to less engagement in these types of activities. We found that LGBTQ inclusive

teaching varied based on teacher educators' years of experience, suggesting that younger or newer teacher educators, perhaps due to concerns about tenure and promotion, might be prioritizing work they believe would please an institutional administration. As such, this calls for college and university administrators to articulate and demonstrate the importance of LGBTQ-related inclusion in the curriculum and support for future teachers learning to create safe and affirming learning environments for LGBTQ students. Overall, it appears that institutional change is necessary to increase and improve LGBTQ-inclusive teaching in teacher education programs.

PART FOUR: BARRIERS TO LGBTQ-INCLUSIVE TEACHING

As previously discussed, although the majority of teacher educators reported that they do include LGBTQ-related content in their courses, 2 in 10 teacher educators (19.9%) reported not including this kind of content at all. Some teacher educators may have a desire to include more LGBTQ-related content in their courses but may face barriers to doing so. Others may not feel personally compelled to include this type of content either because of their personal beliefs or because of the level of importance they ascribe to the issues. Thus, we asked teacher educators the reasons why they do not always include LGBTQ content and additionally whether they had experienced specific barriers. About two-thirds (63.2%) reported that they faced some kind of barrier or other factor that prevented them from including LGBTQ-related content at all, or as much as they would like.

Types of Barriers

As shown in Figure 4.1, we found that the most common barrier was not being knowledgeable or prepared enough in their own training to address LGBTQ topics (39.3%).⁶⁷ For example, one teacher educator stated: "I need to become more versed in LGBTQ literature. My lack of expertise is the reason LGBTQ issues do not play a more prominent role in my teaching."

Another common reason for not including LGBTQ content, second to knowledge and preparation, was the belief that the topic was not relevant or appropriate to their specific course. For example, one teacher educator wrote "The particular courses I'm answering for don't lend themselves too well to this inclusion, unfortunately." This

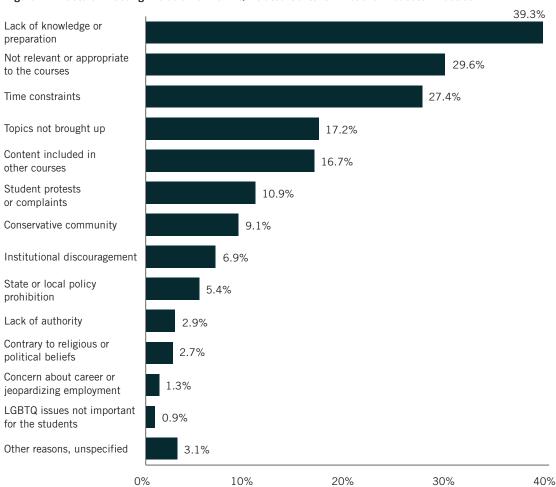


Figure 4.1 Factors Affecting Inclusion of LGBTQ-Related Content in Teacher Educator Practice

respondent reported teaching "Educational Policy and Research," and "Learning and Curriculum." In addition, several teacher educators also named their field of study as not relevant for LGBTQ inclusion, including art education, early childhood education, early child development, and special education. GLSEN and other education advocates, as well as experts in curricular inclusion, would maintain that there are many, if not most, areas of teacher education that could be cognizant of sexual and gender diversity. Future research is indicated to better understand why these educators believe these content areas are not relevant for inclusion of LGBTQ-related content, especially given some of the content areas mentioned would appear to be natural areas for LGBTQ inclusion. Further, these findings indicate a need for education and perhaps resource development that indicates how LGBTQ content is relevant and can be included in the wide range of subject matters in teacher education.

Several teacher educators remarked that LGBTQ content was not relevant because it was not required or part of certification standards. This finding then further points to the need for state-level advocacy for the inclusion of LGBTQ-related content in state standards. Further, it raises a larger question and possible concern about the degree to which teacher education is constrained or confined only to state standards.

Along with perceived relevance of LGBTQ content, teacher educators reported time constraints as the second most common barrier to inclusion. As an example, one teacher educator reported: "Time is the great arbiter. With so many mandates, it's difficult to include everything that we would like." It is conceivable that institutional requirements, along with the need to cover material related to certification standards, may result in time constraints. However, there are many teacher educators who reported finding time to do so. Thus, more research is needed to understand whether time constraints are the sole or primary impediment and whether the concern about time is also related to perceived importance of the content.

One in ten teacher educators (10.9%) reported that their students were a barrier to LGBTQ inclusion, such as students protesting in class when LGBTQ content was presented or writing about their LGBTQ-inclusive teaching in negative teaching evaluations. For example, one teacher educator

wrote, "Students have commented on evaluations that I have an 'agenda' that does not belong in an education course." Nearly 1 in 10 teacher educators also reported that the local community or school districts that they and their students engaged with were too conservative (9.1%), as seen in this teacher educators' comment, "I meet a fair amount of resistance to LGBTQ topics in my courses as our university is in the south (The Bible Belt)."

As also shown in Figure 4.1, 5% or fewer teacher educators reported other impediments to LGBTQ inclusion, such as: the disapproval of colleagues or administrators, a policy in their institution or state that explicitly prohibited LGBTQ-inclusive teaching, lack of authority in decision-making about curriculum, conflict with their own political or religious beliefs, a fear of being outed or fear of damage to their career, and belief that LGBTQ information is not important for their students.

In examining relationships among these barriers, a few notable patterns emerged.⁶⁸ First, teacher educators who reported that they had time constraints were more likely to also say that they did not include LGBTQ content because of concerns about students, their conservative environment, and that the topics were covered in other courses.⁶⁹ These relationships may be indication that for some teacher educators, time constraints alone may not be an impediment to inclusion, and that it is perhaps more of a socially acceptable reason or rationale for lack of inclusion. Second, teacher educators who reported that policies in their institution or state prohibited inclusion of LGBTQ topics also were more likely to report that they believed the attitudes of colleagues and administrators were an impediment as was their conservative location.⁷⁰ Further, these teacher educators were also marginally more likely to report that their own knowledge and training was also a limitation for their inclusion of LGBTQ inclusion.⁷¹ These findings may indicate a particular need in more conservative communities for professional development as well as advocacy in teaching standards. Third, teacher educators who were concerned about the risk to their career were also more likely to report attitudes of their colleagues and of their students as barriers.72 Thus, it may be that these teacher educators have experienced negative interactions in their institutions that may give them pause for future LGBTQ inclusion.

Personal Demographic and Institutional Differences in Barriers

We examined whether there were differences in the barriers to LGBTQ inclusion faced by teacher educators based on personal and institutional characteristics. With regard to reporting any type of barrier, teacher educators did not vary with regard to their personal characteristics but there were differences based on the school level their pre-service teachers planned to teach. Specifically, teacher educators who taught early childhood teachers or secondary school pre-service teachers were less likely to report having barriers to LGBTQ inclusion. In contrast, teacher educators who taught elementary school pre-service teachers were more likely to report having barriers.⁷³

We further examined whether demographic and institutional characteristics were related to specific types of barriers.⁷⁴

Knowledge and Preparation. Sexual orientation, gender, and intended school level of pre-service teachers were significantly related to reporting knowledge and preparation as a barrier. Teacher educators who identified as LGBTQ and teacher educators who taught secondary school pre-service teachers were less likely to report this as a barrier; whereas, cisgender males were more likely to report knowledge and preparation as a barrier.⁷⁵

Content Not Relevant or Appropriate. Geographic region, type of institution, and type of pre-service educators taught were significantly related to teacher educators' reporting the belief that LGBTQ content was not relevant or appropriate for their courses. Teacher educators in the Midwest and West compared to those in the Northeast, as well as teacher educators in research and liberal arts institutions were less likely to report relevance as a reason for not including LGBTQ content. In contrast, teacher educators who taught elementary school pre-service teachers were *more* likely to report that LGBTQ content was not relevant as a reason for not including it in their teaching.⁷⁶

Student Protests or Complaints. LGBTQ status and gender, as well as geographic region and type of institution were significantly related to teacher educators reporting that student protests or complaints were reasons for not including LGBTQ content in the curriculum. LGBTQ teacher educators were more likely to report this reason,

and cisgender males were less likely. With regard to institutional characteristics, those in the Midwest were more likely to report the concern about student complaints than those in the Northeast, and those in research universities were also more likely.⁷⁷

Concern about Colleagues. With regard to personal characteristics, age was associated with a lower likelihood of teacher educators reporting that they were concerned about critique from colleagues and administrators at their institutions. In contrast, identifying as LGBTQ was associated with a greater likelihood of being inhibited (or prohibited) by their colleagues or administrators regarding the inclusion of LGBTQ content in their courses.⁷⁸

Conclusion

Although many teacher educators reported including LGBTQ content in their teaching, the majority also reported significant factors that prevented or inhibited this inclusion. Further, the most common reason for the lack of inclusion is teacher educators' own knowledge and preparation on the content area. Thus, it is important to address these barriers so that our future teachers will be better equipped to work with LGBTQ students and families when they enter the classroom. Professional development and training about how to include LGBTQ content in all courses, and that increases teacher educators' knowledge and awareness of resources and LGBTQrelated teaching strategies may help alleviate some of these barriers and in turn, increase the rate of LGBTQ-inclusive teaching in teacher education programs. In addition, professional development should address how LGBTQ content can be included in the diverse array of courses that are taught as part of teacher education. As discussed, many of the teacher educators in this study reported that such content was not relevant to their courses, yet many of the courses they reported teaching seemed obvious choices for the inclusion of LGBTQ content, such as education policy. It is important to note that several teacher educators report early childhood courses as not relevant. Yet when we examined differences among teacher educators in institutional factors, we did not find that those who taught future early childhood educators were more or less likely than others to see relevance as a barrier. Although no teacher educator specifically mentioned elementary courses as not relevant for LGBTQ inclusion,

we did find that teacher educators who taught elementary pre-service teachers were, in fact, more likely to report that LGBTQ content was not relevant or appropriate. These findings indicate a particular need in the field of elementary education to provide training and resources about why LGBTQ content is relevant and about how to specifically include such materials.

As mentioned previously, another common barrier was time constraints. It is perhaps understandable that teacher educators may feel pressure for inclusion of materials that are not required by the college or university or by teacher certification standards in their state. There has been research showing how test-based accountability policies are related to increased teacher stress and lack of autonomy among public school teachers,79 and there may be similar pressures in the postsecondary setting with regard to policies and institutional priorities,80 and of meeting state certification standards among teacher educators. Further, this finding also raises the question of how administrators and advocates for diversity inclusion can mainstream LGBTQ-related content so that it is a part of everyday teaching, and then does not add to the burden of time.

Some teacher educators who reported impediments to LGBTQ inclusion listed the lack of relevance of the topic or that the topic does not emerge in the course of the class, presumably from the students. As discussed previously, if state standards for teacher certification included requirements about LGBTQ-related content, then teacher educators would necessarily need to see the content as relevant, and also they would not need to rely on it being raised by students in class. Thus, statelevel advocacy for the inclusion of LGBTQ-related content in state standards is indicated. Several states now have laws mandating the inclusion of LGBTQ topics in history or social studies,81 and research on how changes in certification standards and in teacher education practice may have occurred as a result could be enlightening on the effect of state-level standards vis-à-vis LGBTQ

inclusion. Regardless of state standards and statelevel advocacy, these findings also indicate a need for advocacy in higher education, with schools and departments of education, to ensure future teachers are prepared to work with the diversity of students in the country, including LGBTQ students.

These findings on barriers highlight a need to better understand the experiences of LGBTQ teacher educators. LGBTQ teacher educators were more likely than others to report that there was some barrier regarding LGBTQ inclusion in their teacher at the institutional level, such as concerns about disapproval or even repercussions from colleagues and administrators. Considering that at the time of survey administration fewer than half of the states in the U.S. had employment protections for sexual orientation and gender identity, the threat of job loss would be a very real concern for many LGBTQ faculty. In fact, less than half of the LGBTQ teacher educators in the sample worked in states with such protections. In addition, some LGBTQ teacher educators may feel added risk if they are not tenured, not only for continued employment but for tenure and promotion. There is some evidence in the study indicating that among non-tenured teacher educators, those who identify as LGBTQ were more likely to be concerned about their colleagues and students with regard to LGBTQ inclusion.82 Thus, it is important to investigate and address anti-LGBTQ discrimination in higher education. Although as of June 2020, LGBTQ identities are recognized as a federally protected class, making it illegal to fire someone because of their sexual orientation or gender identity in all 50 states, territories, and Washington D.C.,83 this was not the case when these data on teacher educators was collected. Further, national education institutions may have an important role to play as influencers in the administrations of faculties of education, not only for LGBTQ inclusion, but for creating a safe and affirming workplace for teacher educators, as well as mentorship opportunities for non-tenured LGBTQ faculty, as well as those from other marginalized groups.

PART FIVE:
PREDICTORS
OF LGBTQINCLUSIVE
PRACTICES

The overall purpose of this study was to further our understanding of the state of teacher education on LGBTQ issues in the United States by examining the background, experience, knowledge and practice of teacher educators as well as barriers to LGBTQ inclusive practice independently. However, as illustrated in Figure 5.1, we maintain that attitudes and beliefs, self-efficacy, prior knowledge and experiences, and professional characteristics of the individual could all contribute to the propensity of inclusive teacher educator practice, along with support or lack thereof from one's institution and barriers to inclusion. Thus, we explored what are the most salient predictors of LGBTQ-inclusive practice when considering all the factors simultaneously. Figure 5.2 shows odd ratios and confidence intervals for each of the significant factors.84

Professional Characteristics

With regard to professional characteristics, teaching early childhood education and teaching seconary education were associated with a greater likelihood of LGBTQ inclusive teaching practices. Considering the developmental ages corresponding to the levels of education, it is perhaps not suprising that preparation of future secondary school teachers is likelier to include information on LGBTQ issues given the students are adolescents. It is somewhat suprising that preparation of early child educators is also more likely to include information on LGBTQ issues. In that early childhood education focuses heavily on social learning and often includes teaching about family and community, it may be in that vein that LGBTQ issues come up.

Teaching pre-service elementary education was not significantly related to LGBTQ inclusion, whereas the other two levels were related to a greater likelihood of inclusion. It is important to note that the three variables were not discrete categories. For example, one could teach preservice educators at all three levels, or teach pre-service early childhood and elementary, or only pre-service elementary. Nevertheless, the pattern of results across the three level may indicate that greater attention is needed to the inclusion of LGBTQ issues in pre-service elementary education. This would be consistent with previous research on LGBTQ inclusion in elementary education. In a national survey of elementary school teachers.85 we previously found that less than half felt comfortable answering questions about LGB people and fewer felt comfortable answering questions about transgender people.

One additional significant finding with regard to professional characteristics was one's professional role in the instititon. Being a faculty member without an additional administrative or other role at one's institution was associated with a lower likelihood of inclusive practice. Given that years of experience was also considered in the analysis, this finding is not about level of experience or even tenure in the institution, but likely it is about one's own authority and autonomy over one's teaching. Thus, this finding may call for a greater need of visible institutional support regarding LGBTQ inclusion, whether that be in administrators themselves encouraging such inclusion or setting policy and standards for inclusion in curriculum requirements.

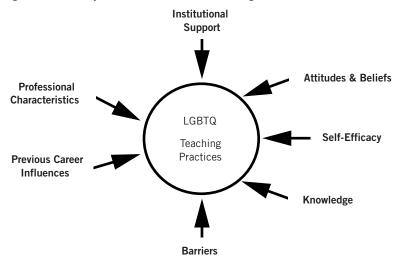


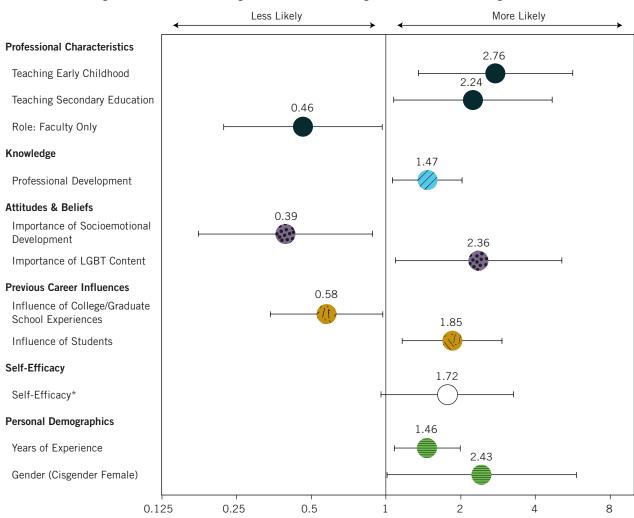
Figure 5.1 Pathways for LGBTQ-Inclusive Teaching Practice for Teacher Educators

Knowledge

Although we did not specifically examine levels of knowledge on LGBTQ issues among educators, we used experiences with professional development on these issues as a proxy for exposure. As shown in Figure 5.2, increased exposure to LGBTQ content via professional development trainings was associate with increased likelihood of LGBTQ inclusion in one's own teaching. It is important to note that teacher educators were asked whether they had had exposure to various specific LGBTQ content areas, such as family diversity, sexual and gender identity development, and supporting LGBTQ youth, in a variety of settings (see

"Preparation and Resources" section for further information). The variable used in this analysis is the number of LGBTQ content areas that had been addressed in any setting. Thus, this finding is more an indication of breadth of content knowledge and not necessarily depth of knowledge. Further research is needed that examines setting, content covered, and degree of training to fully understand the contribution of professional development to knowledge regarding LGBTQ issues. Nevertheless, our finding provides evidence that building the knowledge base on LGBTQ issues for teacher educators increased the likelihood that they incorporate this material into their own teaching.

Figure 5.2 Factors Influencing Teacher Educators Using LGBTQ Inclusive Teaching Practices



^{*} $\underline{\text{marginally}}$ significant, p < .10

Note: The dots in the figure represent the odds ratio (x-axis) for each factor (y-axis). Each dot indicates the odds that the factor influences use of LGBTQ inclusive teaching practices for educators. The bars surrounding each dot represent the 95% confidence interval, which indicates the level of precision around the odds ratio for the educators in our study in relation to the overall population of educators. For example, the odds ratio of 2.43 for gender indicates that cisgender women were more than twice as likely to have LGBTQ inclusive teaching practices than cisgender men in our sample of teacher educators, and there is 95% confidence in that the odds lies between slightly about 1 (even odds) and 5 times more likely.

Attitudes and Beliefs

Perhaps not surprisingly, we found that teacher educators' belief that the inclusion of LGBTQ content is important for pre-service educators was related to a greater likelihood of LGBTQ inclusion in teacher educator practice. In contrast, however, we found that teacher educators' belief that it is important to teach socioemotional development was related to a lower likelihood on inclusion. Considering the bivariate relationships between the set of questions about importance of content with LGBTQ inclusive practice, most of the importance items had a low or non-significant relationship, with the exception of importance of LGBTQ content, importance of social justice, and gender-related content.86 The importance of socioemotional development was one of the variables that had no significat bivariate relationship to LGBTQ inclusive practice. However, when all these items were considered together, importance of LGBTQ content remained a positive factor for practice, and importance of socioemotional development became a negative predictor. This would indicate that after accounting for the shared variance between these two items, those educators who have a strong belief in teaching socioemotional development are less likely to include LGBTQ content in their own teaching. Further investigation is needed into the practice of teaching socioemotional development and what, in its current state, could be an impediment for LGBTQ inclusion.

Previous Career Influences

As discussed in the "Preparation and Resources" section, we asked teacher educators what had been most influential in their own development as a teacher educator. As shown in Figure 5.2, the influence of current and former students was related to a greater likelihood of LGBTQ inclusion in teacher educator practice. Thus, this finding would suggest the importance of pre-service teachers raising LGBTQ issues in class, talking about the relevance and importance of issues related to sexual orientation and gender identity and gender expression, and advocating for LGBTQ-related content in the curriculum.

The influence of teacher educator's own college and graduate school experiences was related to a lower likelihood of LGBTQ-inclusive practice. It is important to note that the set of influence questions also included a question about the

importance of the teacher educator's experience being trained as an elementary or secondary teacher, which was not a significant predictor. Thus, it is difficult to know what previous higher education experiences might hinder LGBTQ inclusive teaching practice. In this analysis, we included years of experience but not the age of the teacher educators. It is possible that teacher educators who were students a longer time ago are more conservative in their teaching practices. Further exploration is needed to better understand the role of prior career influences of teacher educator, especially in higher education, with regard to LGBTQ inclusive practice.

Self-efficacy

In addition to teacher educators' attitudes and beliefs about the importance of teaching certain topics, their self-efficacy, their belief in their abilities to engage in certain teaching practices, may also influence actual teaching behaviors. As shown in Figure 5.2, self-efficacy regarding employing LGBTQ inclusive practices was only a marginally significant predictor of LGBTQ. As discussed in "Attitudes and Beliefs about Preparing Students for LGBTQ-Inclusive Teaching", the majority of educators felt somewhat or very confident in all of the dimensions of self-efficacy, and as such, the lack of a more robust findings may be, in part, related to the restricted range of variance in the composite average score used for this analysis. Nevertheless, the finding provides some support for our hypothesis that increasing teacher educators' self-efficacy regarding LGBTQ inclusion may result in a greater likelihood of actual inclusive teacing practice. Thus, enriching the teacher educator curriculum with regard to LGBTQ-related content and greater professional development on LGBTQ issues may encourage and embolden further inclusion in teacher educator in their practice.

Demographics

In our analysis, we included a set of demographic variables as controls: years of teaching experience, gender (identifying as cisgender female vs. cisgender male), race (identifying as white vs. a person of color), LGBTQ status (identifying s as LGBTQ vs. not LGBTQ), and region (living in the Northeast compared to the South, Midwest, or West). As shown in Figure 5.2, only years of experience and gender were significantly related to the likelihood of LGBTQ-inclusive practice.

We found that teacher educators with more years of experience were more likely to employ inclusive practices. It may be that teacher educators with a longer teaching history are more likely to have been exposed to content on LGBTQ issues, particularly through professional development. However, we earlier hypothesized that age may be a factor in negative influences from teacher educator's own college or graduate school experiences. It may also be that teacher educators with more years of experience had greater job security because of academic tenure. Further investigation is needed to understand past influences and history of exposure to LGBTQ content among teacher educators.

We also found, with regard to gender, that cisgender female teacher educators were more likely to employ LGBTQ-inclusive teaching practices than their cisgender male peers. This finding is not necessarily suprising given that in general, women in the United States are more accepting and have more tolerant attitudes toward LGBTQ people.⁸⁷ Further, specific to higher education faculty, women are also more likely than their male colleagues to include diversity into their courses.⁸⁸

Conclusion

Reconsidering our theoretical model of factors influencing LGBTQ inclusive practice (see Figure 5.1), our findings suggest that certain professional characteristics, previous career influences, attitudes and beliefs, knowledge, and perhaps to a lesser extent self-efficacy, may be significant influences for teacher educators. Further, our findings suggest that perceived barriers to inclusion and institutional support were not significant influences for teacher educators when all factors were considered. Thus, inclusion of LGBTQ content in pre-service education may be more idiosyncratic to the individual teacher educator — their own beliefs and their particular professional expertise and teaching area — rather than a result of expectations, encouragement or discouragement from their institutions. In this vein, it is interesting to note that when the set of items related to barriers were considered first in the model, perceived lack of knowledge of LGBTQ issues and belief that LGBTQ content was not relevant

were significantly related to a lower likelihood of inclusion, but were no longer significant when other factors were considered. Also, institutional support was significantly related to a greater likelihood of inclusion when considered first in the model, but similarly fell out of significance. Thus, it would appear that extra-individual factors, such as actual or perceived support or barriers, are important predictive factors but less so when other intra-individual factors are considered. That being said, the finding that teacher educators who were only faculty and did not have higher roles in their institutions were less likely to report inclusive practice suggests that authority and autonomy in one's role may be an important factor. Further research is needed to disentangle the individual and external institutional and sociocultural influences. However, these findings suggest that to increase LGBTQ inclusion in higher education, it is important to elevate policies and practices at the institution and in the field to require the inclusion of LGBTQ content in pre-service education. By doing so, inclusion is not dependent solely on the interest and good will of the teacher educators themselves.

When considering the magnitude of the odds ratios, the findings indicate that the content area and perceived importance of content were key factors in predicting LGBTQ inclusion on the part of teacher educators. Those who taught early childhood and secondary education were more likely to include LGBTQ content in the courses, and those who believed that knowledge of LGBTQ-related issues was important for pre-service educators had a higher likelihood of inclusive teaching practice. However, those who believed that knowledge of socioemotional development had a lower likelihood of inclusive practice. These findings provide some indication of where more work is needed to foster LGBTQ inclusion, specifically in pre-service elementary education and in courses related to socioemotional development. Further, in that beliefs about the importance of LGBTQ inclusion, along with exposure to LGBTQ-related content in professional development were both related to a greater likelihood of inclusive practice, these findings also highlight the need for further education and professional development for teacher educators on LGBTQ issues in education.

DISCUSSION

Limitations

This study, to our knowledge, is the most comprehensive national examination of LGBTQinclusive teaching in teacher education programs, specifically examining how teacher educators feel about and engage in teaching that prepares their pre-service students to engage in teaching and efforts to make schools safe for LGBTQ students. However, there were some limitations to the study. A main limitation is the representativeness of the sample of respondents. The majority of study respondents were invited to participate through national organizations for teacher educators. Although we reached out to 32 organizations, only 9 responded, so our participants are from a limited number of professional organizations. In addition to inviting participants who were connected to professional organizations, we also reached out to schools and programs of education in the U.S. Of these programs, 150 were randomly selected, and 10 agreed to share the survey with the teacher educators in their program, resulting in a small percentage of schools participating out of all teacher education programs in the country. It is possible that other teacher educator programs from the randomly selected list promoted the survey without informing us. Nevertheless, because of the low response rate to both of these modes of recruitment, the sample may not be representative of the entire sample of teacher educators in the United States.

Despite the low response rate in our recruitment strategies, efforts were made to reduce selection bias. It is possible that teacher educators' or education programs' values and beliefs about LGBTQ people and topics might influence their decision whether or not to participate in the survey. Because of this, teacher educators received invitations to participate from their professional organizations and programs, instead of from GLSEN, to prevent those who know about GLSEN's mission and work to be influenced in their decisions. However, despite these attempts, it is possible that some would have learned about GLSEN's involvement in the survey, or learned about the nature of the content of the survey through various ways. This could have influenced participation, and led to potential participants deciding to take the survey or not based on their positive or negative attitudes about LGBTQ-people and issues. Additionally, it is very likely that participants learned of the nature of the survey

once they started to take it, and this could have led some with negative attitudes towards LGBTQ issues to not complete the survey. Because of this, caution must be taken in interpreting or generalizing the results of this study to all teacher educators.

It is also important to acknowledge that this study relied on self-reported behaviors, attitudes, and beliefs and the role that respondent bias may have played. For example, our assessment of teacher educators' LGBTQ-related preparation and professional development relied on teacher educators' retrospective accounts of their undergraduate and graduate education, and their prior job experience as K-12 educators and as teacher educators, and it is possible that participants did not remember, or did not accurately remember, their experiences in these various experiences. Thus, when considering our findings about teacher educators' own history and practice, it is important to recognize that they may have been influenced by memory or self-perception. In the future, when possible, studies should examine less subjective measures of preparation and practices. However, it is also important to note that some questions in our survey, including those about teacher educators' attitudes and beliefs were not retrospective, so these concerns do not apply to all findings. Additionally, it is important to consider the role that social desirability may have contributed to participants' responses. Teacher educators may have responded in ways that would more positively reflect on their attitudes and practices, by overreporting how frequently they engage in LGBTQinclusive teaching or reporting their attitudes about LGBTQ issues as more positive than they are.

Many survey items assessed teacher educators' behaviors, in practice and in preparation, by asking whether or not they engaged in specific behaviors, but did not ask about frequency, preventing us from being able to distinguish between those who engaged in a behavior once and those who regularly and frequently did so. Further, certain items on the survey did examine the frequency of engaging in certain practices, but this did not allow for measurement or assessment of the quality of those practices. While we believe that receiving more LGBTQ-related training is better than not receiving this kind of training, we cannot know the quality, and therefore effectiveness, of the trainings teacher educators in our study participated in. Future

research should specifically examine the quality and effectiveness of different forms of preparation and training to better understand what contributes to quality LGBTQ-inclusive teaching by teacher educators.

Additionally, we cannot know the effectiveness of the practices that teacher educators reported participating in, as this survey only includes the perspective of teacher educators, and not their preservice teachers. Future research should examine the perspective of pre-service teachers and their experiences in their teacher education programs. Pre-service teachers should be asked about the LGBTQ-related content they are exposed to by their professors and about their own practices in their eventual classrooms to better understand how teacher educators' efforts to teach about LGBTQ people and issues actually influences and impacts teachers' actions and attitudes in their K–12 classrooms.

Our study identified relationships among some topics examined, but we cannot assume causality. For example, although we found a significant relationship between knowledge and LGBTQrelated teaching practices, we cannot know if higher LGBTQ-related knowledge led to more LGBTQ-inclusive practices or if engaging in LGBTQ-related practices resulted in more LGBTQrelated knowledge. We also do not know if there are other factors that we did not consider that are also involved in this relationship. In many cases, we accounted for various factors to reduce the possible influence on the relationships being examined but it is possible that other factors that we could not account for contributed to the relationships we observed.

Despite these limitations, this is the most comprehensive study on teacher educators and LGBTQ issues, both in regards to the depth of the examination of beliefs and behaviors, and in the size and scope of the sample. Additionally, this study provides important and useful information about the beliefs and behaviors of a large number of teacher educators in United States education colleges and programs. This information provides guidance to higher education institutions and professors that can be taken to improve the state of LGBTQ-inclusive teaching in teacher educator programs.

Conclusions

The current study contributes important knowledge about the state of teacher education programs' inclusion of LGBTQ content, by examining teacher educators' attitudes and beliefs, preparation, practices, and barriers experienced. Most teacher educators believed that learning LGBTQ content was important for their pre-service education students, but less so than other diversity and social justice topics. Even though teacher educators had positive beliefs about the importance of LGBTQ topics, in general, they were not highly confident engaging in LGBTQ-related teaching. This low confidence can perhaps be explained in part by the little amount of LGBTQ-related preparation and training teacher educators receive. Our findings show that the majority of teacher educators do not receive training about LGBTQ people in a formal or educational setting, whether it be in pre-service education or formal in-service trainings. Further, for some LGBTQ topics, training was more commonly received somewhere outside of these formal structures. When teacher educators did receive training on LGBTQ topics, the most common topic discussed was family diversity and teacher educators less frequently received training on explicitly LGBTQ topics. Academic topics, such as queer theory and sexual and gender identity development were more likely to have been covered in pre-service than in in-service training, whereas information and skills about practices and behaviors (e.g., how to intervene in incidents of biased language) were more likely to have been taught in in-service training. Training on LGBTQ curricular inclusion were more likely to have been received somewhere outside of the formal structures of pre-service education or in-service training. These results suggest that there is a need for increased LGBTQ-specific training in all kinds of topics and skills in both in-service (i.e. training provided to teacher educators at their current institutions) and pre-service training (i.e. training provided in undergraduate and graduate education programs).

Teacher educators have a responsibility to prepare their pre-service students with skills and knowledge to support and affirm LGBTQ youth in their classes, and create learning environments that are supportive of LGBTQ people and topics. By engaging in LGBTQ-inclusive teaching themselves, and including LGBTQ-specific topics in their courses, teacher educators support similar work

in their students' future classrooms. Despite low confidence and preparation, most teacher educators (80.1%) reported including LGBTQrelated content in their teaching at least once in their most recent courses. However, LGBTQ topics were included less frequently than more general diversity and sociocultural topics, and transgender topics were much less commonly included than LGBQ topics. Overall, teacher educators were more likely to include content about knowledge and skills to support LGBTQ students, including information about sexual identity and development, ways to support LGB youth, and intervention in LGBTQ language. Teacher educators were more likely to teach their students skills to react to individual LGBTQ students or incidents of bias in their classrooms schools. However, they were less likely to include content about how to proactively and critically assess their classroom practices and curriculum to ensure that their schools are safe and affirming for LGBTQ students. Learning to critically assess one's teaching practices in this regard is important for creating safe learning environments for all students, but especially LGBTQ students who may not be out to teachers and therefore less likely to receive individual support about their sexual orientation or gender identity. Additionally, proactively creating safe environments by assessing practices and curriculum ensures that LGBTQ topics are not only being addressed after negative instances of bias or harassment.

Findings from this data also reveal that most teacher educators, nearly two-thirds, faced some kind of barrier to including LGBTQ-content. Most commonly, teacher educators reported that the lack of knowledge or preparation in their own training to address LGBTQ topics and issues was a barrier. Many teacher educators also reported not including LGBTQ content because it was not relevant to the courses they taught. Some reported that it was not relevant because they believed LGBTQ topics did not fit well into, or were not appropriate for, their course content. However, many teacher educators who reported that LGBTQ content was not relevant to their courses taught classes in which LGBTQrelated topics are, in fact, quite relevant and prime locations for LGBTQ inclusion, including early childhood education, child development, and art education. This finding may indicate underlying resistance to LGBTQ inclusion and/or further evidence of a need for contextually understanding the importance of diversity and inclusion in curriculum. Other teacher educators cited the

lack of LGBTQ-related competency in certification requirements as reasons why LGBTQ teaching was not relevant to their work. It was also common for teacher educators to report that time constraints prevented them from engaging in LGBTQ-inclusive teaching. However, teacher educators who cited time constraints as a barrier were more likely to also report concerns about pushback from students, the conservative environment they teach in, and that the topics were covered in other courses as reasons they did not include LGBTQ content, suggesting that time constraints may be a more socially acceptable barrier than others to report.

It is encouraging that most teacher educators believed it was important to prepare their students with skills to engage in LGBTQ teaching. However, even though most teacher educators reported including LGBTQ content in some way at least once in their courses, few engaged in this content frequently. Furthermore, when considering specific types of LGBTQ-related content, only a few were more commonly taught, such as family diversity and supporting LGBTQ youth. Even though many engaged in LGBTQ-inclusive teaching at least once, most teacher educators faced various barriers to such teaching, the most common being lack of knowledge and preparation. This is unsurprising when considering our findings that show that most teacher educators do not receive LGBTQ-related training or professional development in their inservice or pre-service training.

Recommendations

Our findings make it clear that teacher educators require more LGBTQ-related professional development and training at all levels of their educations and professional career, in order to better equip their pre-service students to create learning environments that are safe and affirming for LGBTQ students. Teacher educators report low LGBTQ-related knowledge and confidence, which negatively affects their behaviors and practices. In fact, the largest reported barrier to engaging in LGBTQ-inclusive practices in teacher education courses was lack of knowledge and preparation. LGBTQ specific training and professional development can improve teacher educators' knowledge base and improve their attitudes about LGBTQ-related topics, but can also equip them with skills and resources to improve their confidence, self-efficacy, and in turn, teaching

practices. However, it is not common for teacher educators to have received such professional development either in their pre-service education, or via in-service training at past or current teaching institutions.

Providing LGBTQ-specific professional development to all K-12 educators would likely enhance LGBTQ-inclusive teaching among K-12 teachers, but would also have an eventual effect on teacher educators, as teacher educators reported that their experiences in K-12 teaching were influential to their practices in higher education, both in general, and specific to LGBTQ-inclusive teaching. Similarly, it is critical that pre-service teachers are trained on LGBTQ-topics and practices in their education programs. This training would equip those who will be K-12 teachers, but also those who will eventually go on to become teacher educators themselves. Receiving this training in one's pre-service training ensures that teacher educators do not only have to rely on the training that is provided by their future higher education institutions. However, we know that it is not common for teacher educators to receive LGBTQrelated professional development in their preservice education. Thus, it is critical that LGBTQspecific in-service professional development is provided to teacher educators at all types of higher education institutions, including public, private, and religious colleges and institutions.

It is important that professional development include general and basic knowledge about LGBTQ people, and youth specifically, in order to improve both knowledge and attitudes. According to our findings, it is more common for teacher educators to have learned in their professional development experiences about supporting LGBTQ students and intervening when anti-LGBTQ bullying and harassment takes place. In contrast, teacher educators were less like to have had training on assessing and examining school climates and curricula for anti-LGBTQ bias. Specifically. few teacher educators reported being trained to critically examine their schools and their own practices and curricula, and perhaps in turn, few reported teaching their pre-service students how to assess institutional practices and curricular materials for LGBTQ-bias and heterosexism. In order to create fully inclusive and safe learning spaces, it is vital for teacher educators to not only know how to support LGBTQ students and intervene regarding anti-LGBTQ behaviors, but also to be able to critically examine their schools and their own practices and curriculum, and be able to teach their pre-service students to do the same. Thus, teacher educators must be trained on how to create learning spaces that are safe and affirming for all students, which requires proactively considering all elements of teaching and the classroom, and ensuring they are free of all bias, including that which might appear more implicitly in places like curriculum.-

Our findings also suggest that teacher educators received less training and were less confident in their abilities about transgender topics compared to LGBQ topics, and engaged in fewer teaching practices that had to do with gender identity than sexual orientation. LGBTQ professional development must go beyond training educators to be competent in sexual orientation-related topics, and ensure that educators understand the unique experiences and needs of transgender people and youth. This is particularly important considering that schools are especially unsafe for transgender and nonbinary youth, who experience higher levels of victimization and discrimination compared to their cisgender LGBQ peers.⁸⁹

Teacher educators who taught multicultural education courses (MCE) had the most positive attitudes about LGBTQ topics and teaching, and were the most confident in their abilities to cover them in their teaching. Further, LGBTQ-related topics were more commonly included in MCE classes than in other types of courses, although LGBTQ topics were included less than other general diversity and sociocultural courses. MCE and diversity courses provide a great opportunity for LGBTQ-inclusion, and special attention should be paid for inclusion in these courses. Even though inclusion in these courses may be more common, it may not always be the case. Thus, it is important to further provide training specifically on addressing LGBQT-related topics in MCE and diversity education.

Although MCE and diversity education are key venues for LGBTQ content inclusion, it is critical that they not be the only locations of inclusion. It is necessary to provide training and support to teacher educators of all subjects. Teacher educators in our study who only taught elementary school level pre-service classes were less confident in their LGBTQ-related teaching, and engaged in such teaching at lower rates than those who

taught secondary school level pre-service teaching, indicating greater training and support on addressing LGBTQ issues in the elementary grades. Further, some teacher educators believed that LGBTQ issues were not relevant to their content area, including even some teaching art education or education policy. In that LGBTQ topics are relevant to all courses and subjects, LGBTQ professional development for teacher educators must include skills and resources on how to include LGBTQ content into courses in which this kind of content may not be as obviously relevant as it is in courses like multicultural education, diversity, and social justice courses.

Professional development can improve individuals' self-efficacy, knowledge base, and attitudes about the importance of LGBTQ-inclusive teaching and the needs of LGBTQ students. However, it is not enough to solely rely on the teacher educators who are interested in this kind of teaching and are already motivated to engage in LGBTQ-inclusive and affirming practices. At the institutional level, there must be policies and practices in place requiring inclusion of LGBTQ-inclusive work in pre-service education. Perceived support by administration predicted LGBTQ-inclusive practice among the teacher educators in our study, suggesting that administrations and institutions must publicly value support faculty's work towards LGBTQ-inclusive and affirming teaching. This not only increases LGBTQ-inclusive teaching in teacher education programs, but also demonstrates to LGBTQ students that they are valued at their institution. In order to accomplish this, university administrations should require a certain amount of LGBTQ-related content in pre-service education courses and require LGBTQ professional development for all teacher educators at their institution.

Professional organizations also play a role in setting expectations and standards for teacher educators and have a responsibility to ensure that teacher educators value and engage in LGBTQ-inclusive teaching. Organization mission statements should be written to include a dedication to LGBTQ-inclusive teaching, and policies and practices should make it clear that LGBTQ competency is expected of the organization's members.

State level advocacy is also needed to work for the inclusion of LGBTQ related content in state standards, including teaching certification standards. Advocacy for LGBTQ-inclusive teaching standards has been successful in some states where legislation now requires the inclusion of LGBTQ content in K-12 curriculum. However, this kind of legislation only requires that K-12 teachers engage in LGBTQ-inclusive teaching, and does not require that they are prepared to do so during their teacher preparation. Certification standards requiring teachers to possess some level of LGBTQ-related proficiency and competency before entering the classroom would ensure that pre-service education programs instill these skills in their students while they are at their institutions. In addition to curricular standards about K-12 education, advocacy is needed in regards to state standards at the higher education level. Pre-service educators should be required to be taught how to engage in LGBTQ-inclusive curriculum in their preservice programs, so that they are well prepared for their careers as K-12 teachers.

Schools are not safe for all LGBTQ students, but research shows that supportive resources, such as LGBTQ-inclusive curriculum and supportive teachers help alleviate the negative effects of hostile school climates and make schools safer for LGBTQ students.90 Most teachers believe it is their duty to create such learning environment but also lack the confidence and training to do so. Teacher educators and pre-service education programs and institutions have a responsibility to prepare teachers who will create classrooms that are safe and affirming for all youth and who are confident in their abilities. More professional development and training is needed at all the stages of teacher educators' educational and professional careers - from their pre-service education to continuing professional development in their tenure as teachers. Further, it is the responsibility of higher education institutions, professional organizations, and state legislatures to ensure that this work occurs, by supporting and mandating LGBTQinclusive teaching and curriculum in teacher preparation programs across the country.

Appendix: Survey Instrument

Teacher Education Survey

First, we'd like you to tell us about your role in teacher education.

) What best describes your role or roles in teacher education? Please check all that apply. □ Faculty Member, Instructor, or Graduate Teaching Assistant □ Department/School Dean or Administrator □ Program Director or Program Coordinator □ Clinical Supervisor □ Other (please specify) I you selected other, please specify 						
3) This year, did/will you teach current or future teachers at any of the following levels? Please check all that apply. □ Early Childhood or Pre-Kindergarten Education □ Elementary or Childhood Education (K–5) □ Middle or Junior High School (6–8) □ High School (9–12) □ I did/will NOT teach current or future teachers this year. □ Other (please specify)						
If you selected other, please specify						
Click HERE to so that we may ask you questions about your role and institution. O you complete the survey you will have the opportunity to enter the drawing. 4) Please list the titles of the teacher education courses you teach:	nce					
5) Which of the following best describes your employment status? (Please choose one.) Tenured faculty Tenure-track faculty Non-tenure-track faculty Adjunct instructor/faculty Graduate student Other (please specify) If you selected other, please specify						

 6) For how many years have you taught at the post-secondary (college or university) level? O Less than 1 year O 1-2 years O 3-5 years O 6-10 years O More than 10 years
7) What is the highest degree you have obtained? O High school diploma O Associate O Bachelor's (e.g., BS, BA, BSW) O Master's (e.g., MS, MA, MSW, M.Ed.) O Doctorate (e.g., PhD, EdD, PsyD) O Other (please specify)
If you selected other, please specify
8) Are you a member of any of the following teacher education associations? Please check all that apply. Association of Teacher Educators American Association of Colleges for Teacher Education American Educational Research Association National Association for Multicultural Education Association of Mathematics Teacher Educators Association for Science Teacher Education National Council of Teachers of English National Council for the Social Studies Other (please specify)
If you selected other, please specify
9) Do you supervise student teachers during their clinical placements? O Yes O No
10) Are the teacher education courses you teach taken by any of the following? Please select all that apply. Undergraduate students pursuing an Associate degree Undergraduate students pursuing a Bachelor's degree Graduate students pursuing a Master's degree Graduate students pursuing a doctoral degree Students pursuing initial certification Students pursuing advanced training, programs, or certification
11) Do the students you teach include students in any alternative certification programs, such as Teach for America, Urban Fellows Program, The New Teacher Project, or The American Board for Certification of Teacher Excellence?
 Yes, most or all of students I teach are in alternative certification programs. Yes, some of the students I teach are in alternative certification programs. No, none of the students I teach are in alternative certification programs.

The following questions are about the institution at which you teach. If you teach teacher education courses at multiple institutions, please refer to the one where you teach most of your courses for this question and all similar questions.

	Which of the following describes the institution ack all that apply. ☐ Research University ☐ Liberal Arts College ☐ State College or University ☐ Community or Technical College ☐ For-Profit College or University ☐ Private, Religious-Affiliated Institution ☐ Other (please specify)	at which you teach teacher education courses? Please
If yo	ou selected other, please specify	
13)	Which religion is your institution affiliated? with	(if any)?
14)	In which state is your institution located?	
	O Alabama	○ Nebraska
	O Alaska	O Nevada
	O Arizona	O New Hampshire
	O Arkansas	O New Jersey
	O California	O New Mexico
	○ Colorado	O New York
	O Connecticut	O North Carolina
	O Delaware	O North Dakota
	O District of Columbia (Washington, DC)	O Ohio
	O Florida	O Oklahoma
	O Georgia	O Oregon
	O Hawaii	O Pennsylvania
	O Idaho	O Rhode Island
	O Illinois	O South Carolina
	O Indiana	O South Dakota
	O lowa	O Tennessee
	O Kansas	O Texas
	O Kentucky	O Utah
	O Louisiana	O Vermont
	O Maine	O Virginia
	O Maryland	O Washington
	O Massachusetts	O West Virginia
	O Michigan	O Wisconsin
	O Minnesota	O Wyoming
	O Mississippi	O Puerto Rico
	O Missouri O Montana	O Outside the United States
	U IVIUIILAIIA	

Now we'd like to ask you some questions about the courses you teach, including asking about specific content that you might include in your course materials, assignments, activities, and/or lectures.

15) Do you teach courses in teaching methods/pedagogy? If so, please specify the specific subjects

addressed in these methods/pedagogy course	es.							
☐ Math								
☐ English Language Arts/Literacy								
☐ Social studies								
☐ Sciences								
☐ Foreign Language ☐ Arts								
☐ Physical Education								
☐ General								
☐ I do not teach methods/pedagogy cou	ırses							
☐ Other (please specify)								
If you selected other, please specify	f you selected other, please specify							
teacher education courses? O Total or almost total authority O Authority over most aspects O Some authority O None or almost no authority O It varies by course								
17) In general, how important do you think teacher education preparation program?	it is for students t	to learn about the	following issu	es in their				
	Not at all important	Somewhat unimportant	Somewhat important	Very important				
Social justice/equity issues	O	•	O	•				
Diversity issues/multicultural education	O	•	O	•				
Socio-emotional development	•	•	O	•				
Character education	•	O	O	O				

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Bullying/harassment or school safety

Content related to lesbian, gay, bisexual,

and transgender (LGBT) people/issues

Gender issues (gender equality,

stereotypes, etc.)

Classroom management

18)	In general,	how influential	have the	following	experiences	and	resources	been	on	how :	you	teach	your
teac	her educati	on courses?											

	Not at all influential	A little influential	Somewhat influential	Very influential	Not applicable		
Experience being trained as an elementary or secondary teacher	0	•	O	•	•		
Other college or graduate school experience	O	O	O	O	•		
My experience as a K-12 educator	0	O	O	O	O		
In-service professional development as a K–12 educator (e.g., training or workshops provided by or mandated by school)	•	•	O	O	O		
Formal professional development as teacher educator (e.g., training or workshops provided by or mandated by my institution or department)	•	•	O	O	•		
Professional conferences	•	•	O	O	O		
Professional associations (e.g. AACTE, ATE, NAME)	•	•	O	0	O		
Readings (e.g. professional journals and publications)	O	•	O	0	0		
Current or former colleagues	•	•	O	O	O		
The policies or practices of the schools where my students are placed	O	O	O	0	0		
Curricular standards set by my department or institution	0	•	O	0	0		
Former or current students	O	O	•	O	•		
Own personal experiences	•	•	0	O	•		
19) Are there any other experiences or resources not listed that have had an influence on how you teach your teacher education courses? Please tell us about them.							
Now we would like to ask a few questions about your background. 20) In what year were you born? Please enter a four digit number (e.g., 1967). Ye							
21) What is your race or ethnicity? Please check all that apply. ☐ African American or Black ☐ Asian ☐ South Asian (Asian Indian, Bangladeshi, Sri Lankan) ☐ Native Hawaiian or Other Pacific Islander							

	 □ Native American, American Indian or Alaska Native □ White or Caucasian □ Hispanic or Latino/Latina
	□ Middle Eastern or Arab American□ Other (please specify)
If yo	ou selected other, please specify
22)	What sex were you assigned at birth, on your original birth certificate? • Female • Male
23)	What is your gender identity? Please check all that apply. ☐ Male ☐ Female ☐ Transgender ☐ Another gender identity
24)	If you selected "Another gender identity," please specify:
25)	How "out" are you to your colleagues and students about being transgender? O I am "out" to everybody at my institution O I am "out" to most people at my institution O I am "out" only to a few people at my institution O I am not "out" to anyone at my institution
26)	What is your sexual orientation? Please check all that apply. ☐ Straight/Heterosexual ☐ Gay or Lesbian ☐ Bisexual ☐ Queer ☐ Another sexual orientation
27)	If you selected "Another sexual orientation," please specify.
28)	How "out" are you to your colleagues and students about your sexual orientation? O I am "out" to everybody at my institution O I am "out" to most people at my institution O I am "out" only to a few people at my institution O I am not "out" to anyone at my institution
29)	Do you know anyone who is gay, lesbian, bisexual, or queer? Please check all that apply. ☐ Yes, a child of mine or my partner ☐ Yes, a brother or sister ☐ Yes, a parent of mine ☐ Yes, another family member ☐ Yes, a close personal friend

 Yes, a student in my classes Yes, a colleague at my institution Yes, a friend or acquaintance (not a colleague at my institution) Yes, another person not mentioned No 								
 30) Do you know anyone who is transgender? Please check all that apply. Yes, a child of mine or my partner Yes, a brother or sister Yes, a parent of mine Yes, another family member Yes, a close personal friend Yes, a student in my classes Yes, a colleague at my institution Yes, a friend or acquaintance (not a colleague at my institution) Yes, another person not mentioned No 								
The next set of questions focus on your experience with lesbian, gay, bisexual, and transgender (LGBT) issues and topics in your courses and/or program curriculum. Throughout this survey, we use LGBT as an umbrella term to refer not only to lesbian, gay, bisexual, and transgender people, but also people of any sexual orientation other than heterosexual (e.g. queer, pansexual, etc.) and those with gender identities that do not conform to traditional expectations based on sex assigned at birth (e.g., genderqueer bigender, etc.)								
31) In general, how supportive of lesbian, gay, bisexual, and trandard Very Unsupportive O Somewhat Unsupportive Neutral Somewhat Supportive Very Supportive Unsure/Don't know			tion's teacher pre	paration departme	ent/program is			
32) Which of your teacher education courses, if any, include content about lesbian, gay, bisexual, and transgender people or issues?								
	I do not teach this or a similar course	Not at all	Very little (e.g., a single lecture or class session)	Somewhat (e.g., several class sessions)	Frequently throughout the course			
Teaching Methods/Pedagogy	O	•	•	•	O			
Subject-Specific Methods	0	O	•	•	O			
Multicultural/Diversity/Equity Education	O	•	O	0	O			

34) If you do include LGBT-related content in your teaching, please describe up to three examples of how you do this.								
If you selected other, please specify								
Behavior/Classroom Management								
English as a Second Language (ESL)	O	0	O	O	0			
Special Education and/or Gifted Education	•	•	O	O	0			
Curriculum Development and Lesson Planning	O	0	O	O	•			
Assessment	O	O	•	•	O			
Educational Psychology	O	O	O	•	O			
Clinical Internship/Student Teaching/Practicum	O	•	O	O	O			
Child/Adolescent Development	O	0	0	•	•			
Learning and Cognition	O	O	0	0	O			
Leadership Sociocultural Foundations	0	0	0	0	0			
Educational Policy and	O	O	•	0	•			

35)	Thinking of the most re	ecent teacher education	n preparation (course(s) you l	have taught, t	o what extent
did '	you incorporate the follo	owing topics in these co	ourses?			

	Never	During one class session	During a few class sessions	Frequently throughout the semester				
Ways to support transgender youth	0	•	•	O				
Ways to support lesbian, gay and bisexual youth	O	O	•	O				
Socio-emotional development	•	•	O	O				
Social justice/equity issues	•	•	O	•				
Sexual identity/identity development	•	O	O	•				
Queer theory, gender theory	•	O	O	•				
LGBT history and/or significant LGBT people in the subject area you teach (e.g., LGBT scientists)	•	•	•	•				
Intervention in anti-LGBT language (e.g., "faggot," "that's so gay")	•	0	0	O				
How to include LGBT topics/issues into students' teaching/curricula	O	O	•	O				
Gender issues (gender differences, equality, stereotypes, etc).	O	O	•	O				
Gender identity/transgender identity development	•	O	0	O				
Family diversity and different family types/structures	•	O	0	O				
Diversity issues/multicultural education	•	•	•	•				
Classroom management	•	•	•	•				
Bullying/harassment or school safety	O	•	•	•				
Assessing institutional practices for heterosexism and reinforcement of gender norms	•	0	0	O				
Assessing curricular materials for anti-LGBT bias	O	0	O	•				
Another LGBT-specific topic	•	•	O	O				
36) We understand that there are many reasons why you may not be able to address every relevant topic or concept in a course. Is there anything you would you want to incorporate in your courses regarding LGBT inclusion, if you could? 37) Which of the following reasons explain why you do not include content about LGBT topics in your courses (or include less LGBT content)? Please check all that apply.								
 □ It's not relevant to my content □ My own training has not prepared me to address LGBT topics □ I am not knowledgeable enough to address LGBT topics 								

□ State laws will prohibit my students from addressing this in their K−12 classes □ School district policies will prohibit my students from addressing this in their K−12 classes □ My institution or department has a policy that explicitly prohibits this □ Administrators in my institution or department would frown upon this □ My colleagues in my institution or department would frown upon this □ The local community or school districts are too conservative □ My students would resist or complain in course evaluations □ I don't have authority to change content in my course syllabi □ Time constraints have prevented me from incorporating LGBT topics in class □ LGBT issues are not important for my students to know about □ I'm afraid of being outed as LGBT (or being perceived as such) if I include LGBT topics □ I'm afraid that it would damage my career trajectory (e.g., chances of earning tenure, being hired full-time) □ It is contrary to my personal religious or political beliefs □ It doesn't come up □ Other diversity or social justice issues are more relevant or important to my students □ LGBT content is not appropriate or not relevant in the courses I teach □ None of the above □ Other (please specify)					
If you selected other, please specify					
 Yes No Not Sure 39) If you have experienced barriers, please describe you included (or tried to include) LGBT topics in your 		and/or reprisal <u>y</u>	you experiend	ed when	
40) In general, how important do you think it is for to teachers) they teach with the skills and knowledge to		tors to equip th	e students (p	re/in-service	
	Not at all important	Somewhat unimportant	Somewhat important	Very important	
Teach students about the importance of respecting all people (e.g. valuing diversity, preventing bullying)	O	0	•	O	
Be able to provide one-on-one support to LGBT students	O	•	O	O	
Intervene when hearing anti-LGBT remarks (e.g. "faggot," "that's so gay") or witnessing anti-LGBT bullying or harassment	O	O	O	O	
Use LGBT-inclusive language in their teaching and communication with students	O	•	•	O	
Critically assess curricular materials for anti-I GRT bias	•	•	•	0	

Include information about LGBT people, history, or events into their K–12 teaching or curriculum	•	•	•	O
Assess school climate related to LGBT issues (e.g. through a survey of student or educator experiences)	0	•	•	O
Critically assess K-12 school policies, policies, practices and procedures for LGBT-inclusivity (e.g. bullying/harassment policies, forms, school dance rules)	O	0	•	O
Advocate for changes in K–12 schools to make schools more LGBT inclusive (e.g. bullying/harassment policies, forms, school dance rules)	O	•	•	O

The next set of questions are about various influences and preparation related to your work as a teacher educator.

41) In your efforts to include LGBT-related content in your teacher education preparation course(s), how helpful have you found the following to be? (Please consider both the helpfulness in your ability to include LGBT content, as well as the helpfulness in providing specific content/methods used to teach LGBT-related content). Note: If you have not engaged in efforts to include LGBT-related content in your courses, please skip this question.

	Not at all helpful	Not very helpful	Neutral	Somewhat helpful	Very helpful
The stated tenets or values of my institution or department	O	O	O	O	O
LGBT-related organizations or groups (e.g., GLSEN, PFLAG, local LGBT Center)	•	O	O	O	O
Professional associations (e.g., AACTE, ATE, NAME)	0	O	O	O	O
Professional teaching standards (e.g., NCTE)	0	O	O	O	O
My administration (e.g., supportive dean)	•	O	O	O	O
On-campus LGBT groups, centers, or departments	0	O	O	O	O
Resources from other education or social service organizations or other groups (e.g., informational materials, webinars)	O	•	•	•	•
My teaching colleagues (within and outside of my institution)	•	O	O	•	•
Publications (e.g. professional journals and books)	•	O	O	O	O
Media (news, popular media)	0	0	•	•	0
Scholarly research (my own or from others)	0	0	•	•	0
Students in my courses	0	O	O	O	O
Curricular standards or syllabi from my institution or department	•	O	O	0	O

42) Of the following, which are your main sources of information or preparation regarding LGBT issues

and topics? Please rai	nk in order of inf	luence from 1 (most	influential) to 8 (lease	st influential).	
Former or current	students				
Other college or g	raduate school e	experience			
Experience being or secondary teac		ementary			
In-service profess K-12 educator (e provided by or ma	.g., training or w	orkshops			
Formal profession educator (e.g., traby or mandated by department)	nining or worksho	ps provided			
The policies/pract placement/cooper					
Readings (e.g. pro and publications)	•	ls			
Colleagues					
43) Have you, persor training) in the follow		nch item, please sele			ice
	Yes, in my undergraduate or graduate training	Yes, in-service training provided by or mandated by an institution where I previously taught	Yes, in-service training provided or mandated by my current institution	Yes, in another setting (academic conference, training)	No
Family diversity and different family types/structures	٥				
LGBT history and/or significant LGBT people in the subject area you teach (e.g., LGBT scientists)					0
Queer theory, gender theory					
Intervention in anti- LGBT language (e.g., "faggot," "that's so gay")		۵	۵	٥	
Sexual identity/ identity development					
Gender identity/ transgender identity development					

Assessing institutional practices for heterosexism and reinforcement of gender norms			-
Assessing curricular materials for anti- LGBT bias			
Ways to support lesbian, gay and bisexual youth			
Ways to support transgender youth			
How to include LGBT topics/issues into students' teaching/ curricula		٥	
Any other type of LGBT-related professional development		٥	

44) How confident are you in your ability to do the following in your role as a teacher educator?

	Not at all confident	Not very confident	Somewhat confident	Very confident
Include LGBT content in my teacher education preparation courses if I choose	O	•	O	•
Use LGBT-inclusive language and practices in my teaching	O	•	O	•
Use culturally sensitive terminology when talking with or about lesbian, gay, and bisexual people	O	•	O	•
Use culturally sensitive terminology when talking with or about transgender people	•	•	O	•
Answer questions about LGBT issues/people from students	•	•	O	•
Provide direct support to LGBT students	•	•	•	O
Recognize anti-LGBT bias in education practices and materials	O	•	O	•
Intervene in anti-LGBT language and behaviors of my students	O	•	O	•
Teach future educators about how to support LGBT students	O	•	O	•
Challenge my students to consider their own biases as these relate to LGBT people	•	•	O	•

incorporate LGBT topics into their courses? Please least useful (5).	rank the following resources from most useful (1) to
Example classroom activities	
Case studies (video, audio, or written)	
Suggested readings and accompanying discussion guides	
Suggested videos and accompanying discussion guides	
Guidelines or recommendations for teacher educators about best ways to address LGBT inclusion	
46) Are there any other types of resources that you include LGBT topics in teacher education courses?	think would be useful to teacher educators to have to
whether you have engaged in any of the following a ☐ Participated in activities through an LGBT of ☐ Mentored or provided support to LGBT tead ☐ Addressed LGBT issues in my own research ☐ Provided professional development for colle ☐ Attended a training designated to create an and transgender (LGBT) people (e.g. Safe 20) ☐ Displayed any type of visual sign of support students (e.g. Safe Space poster, gay pride) ☐ Supported or advised an LGBT student grounds.	Center or LGBT Studies Program on campus her candidates or scholarship eagues on LGBT issues d maintain supportive spaces for lesbian, gay, bisexual, Zone, Safe Space, etc.). If for LGBT people in your office or area where you meet sticker, etc).
all that apply.) □ Advocated for the inclusion of LGBT-related	I topics in my institution's teacher education
preparation program curriculum or course of Advocated for the needs of LGBT teacher of LGBT te	andidates
policies)	y institution (e.g. discrimination policies, housing
☐ Engaged in advocacy or community service	related to an LGBT issue or cause
49) Thank you for completing the survey. Is there a these topics?	anything else you would like to share about

45) Which of the following resources do you think would be most useful for helping teacher educators

Click "Next Page" for more resources and to enter the drawing for the Amazon.com gift cards and AACTE conference registration.

Thank you for reviewing information about the survey.

For more information about teacher education or preparation, please visit <u>AACTE</u> or <u>ATE</u>. For more information about LGBT issues in education, visit <u>GLSEN</u>.

Thank you, for your interest in this survey! However, this survey is only for those who currently teach teacher education courses.

For more information about teacher education or preparation, please visit <u>AACTE</u> or <u>ATE</u>. For more information about LGBT issues in education, visit <u>GLSEN</u>.

Thank you for taking the survey! Your responses have been submitted.

If you would like to enter to win free registration to the AACTE conference or one of two \$250 gift certificates to Amazon.com, please complete the entry by clicking here (note that your entry to the lottery is completely disconnected from your anonymous responses to this survey).

For more information on teacher education or preparation, please visit <u>AACTE</u> or <u>ATE</u>. For more information about LGBT issues in education, visit <u>GLSEN</u>.

Endnotes

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- To examine mean differences in teacher educators' ratings of importance to learn different topics a repeated measures multivariate analysis of variance (RMANOVA) was conducted among the following variables: Diversity issues/multicultural education (MCE); Social justice/equity (Social Justice); Classroom Management (Management); Socio-emotional Development (Socio); Gender Issues (Gender); Bullying/harassment or school safety (Bullying); Content related to LGBTQ people/issues (Content); Character Education (Character). The multivariate effect was significant, Pillia's Trace = .49, F(7, 548) = 75.77, p<.001, η_p² = .49. Pairwise comparisons were considered at p<.05. All variables were significantly different with the following exceptions: Social Justice and Classroom were not different; Classroom and Socio were not different; Gender and Bullying were not different.
- To examine mean differences in teacher educators' ratings of importance to equip students with different LGBTQ skills a repeated measures multivariate analysis of variance (RMANOVA) was conducted among the following variables: Teach students about the importance of respecting all people (Respect); Intervene when hearing anti-LGBTQ remarks or witnessing anti-LGBTQ bullying or harassment (Intervene); Use LGBTQ-inclusive language in their teaching and communication with students (Language); Advocate for changes in K-12 schools to make school more LGBTQ inclusive (Advocate); Critically assess curricular materials for anti-LGBTQ bias (Assess Materials); Critically assess K-12 school policies, practices, and procedures for LGBTQ-inclusivity (Assess Policies); Be able to provide one-on-one support to LGBTQ students (1:1); Assess school climate regarding LGBTQ issues (Assess Climate); Include information about LGBTQ people, history, or events into their K-12 teaching or curriculum (Inclusive Teaching). The multivariate effects was significant, Pillai's Trace = .53, F(8)413) = 57.42, p<.001, η_p^2 = .53. Pairwise comparisons were considered at p < .05. All variables were significantly different with the following exceptions: Advocate and Assess Materials were not different; Assess Materials, Assess Policies, and 1:1 were not different; Assess Climate and Inclusive Teaching were not different.
- 28 To examine mean differences in teacher educators' confidence engaging in LGBTQ related activities in teaching a repeated measures multivariate analysis of variance (RMANOVA) was conducted among the following variables: Intervene in anti-LGBTQ language and behaviors of students (Intervene); Use culturally sensitive terminology when talking with or about LGB people (LGB Terminology); Challenge students to consider their own biases as they relate to LGBTQ people (Challenge Bias); Use LGBTQ-inclusive language and practices in my teaching (Inclusive Language); Recognized anti-LGBTQ bias in education practices and materials (Recognize Bias); Provide direct support to LGBTQ students (Direct Support); Use culturally sensitive terminology when talking with or about transgender people (T Terminology); Include LGBTQ content in their teacher education preparation courses (Include Content); Teach future teachers about how to support LGBTQ students

- (Teach Support); Answer questions about LGBTQ issues/people from students (Answer Questions). The multivariate effect was significant, Pillai's Trace = .43 $F(9,\,360)=30.64,\,p<.001,\,\eta_{_{\rm B}}{}^2=.43$. Pairwise comparisons were considered at p<.05. All variables were significantly different with the following exceptions: Challenge Bias, Recognize Bias, Inclusive Language, and T Terminology were not different; Inclusive Language, T Terminology, and Direct Support were not different; Direct Support and Include Content were not different; Teach Support and Answer Questions were not different
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- 30 To test differences in attitudes and beliefs by school level teacher educators were preparing students to teach, a series of analyses of variance (ANOVA) was conducted with importance that students be equipped with LGBTQ related skills and knowledge (variable computed by averaging each importance to equip item), and confidence engaging in LGBTQ related teaching activities (variable computed by averaging each confidence item) as dependent variables and level taught as the independent variable. The effect for importance was not significant. The effect for levels taught on confidence was significant: F(2, 346) = 4.115 p < .05, η_n² = .02.
- The relationship between the type of course taught and beliefs about the importance to equip pre-service teachers with LGBTQinclusive skills and knowledge was examined through multiple linear regression with whether or not teacher educators taught a series of different types of courses and subjects (including teaching methods and pedagogy, subject-specific methods, multicultural/ diversity/equity education, educational policy and leadership, sociocultural foundations, learning and cognition, child/adolescent development, clinical internship/student teaching/practicum, educational psychology, assessment, curriculum developmental and lesson planning, special education and/or gifted education, English as a second language, and behavior/classroom management) as the independent variables and importance to equip as the dependent variable. The model accounted for a significant portion of the variance (Adj. Δ R2 = .05, p < .01). Teaching methods/pedagogy courses (β = .13, p < .05), teaching subject specific methods courses ($\beta = -.14$, p < .05), teaching MCE/diversity/equity courses $(\beta = .17, p < .01)$, and teaching sociocultural foundations ($\beta =$.17, p < .05) were significant predictors of importance to equip students with LGBTQ-related skills and knowledge. None of the other courses were statistically significant predictors of important to equip students with LGBTQ-related skills and knowledge.
- 32 See previous endnote
- The relationship between the type of course taught and teacher educators' confidence engaging in LGBTQ-related teaching practices was examined through multiple linear regression with whether or not teacher educators taught a series of different types of courses and subjects (including teaching methods and pedagogy, subject-specific methods, multicultural/diversity/ equity education, educational policy and leadership, sociocultural foundations, learning and cognition, child/adolescent development, clinical internship/student teaching/practicum, educational psychology, assessment, curriculum developmental and lesson planning, special education and/or gifted education, English as a second language, and behavior/classroom management) as the independent variables and confidence as the dependent variable. The model accounted for a significant portion of the variance (Adj. Δ R2 = .08, p<.001). Teaching MCE/diversity/equity courses (β = .28, p<.001), teaching educational psychology courses (β = .19, p<.05) were significant predictors of confidence engaging in LGBTQ-inclusive teaching practices. None of the other courses were statistically significant predictors of confidence engaging in LGBTQ-inclusive teaching practices.
- 34 Gjelten, T. (2018, March 27). Christian colleges are tangled in their own LGBT policies. NPR. https://www.npr. org/2018/03/27/591140811/christian-colleges-are-tangled-intheir-own-lgbt-policies
 - Pappano, L. (2018, June 5). At Christian colleges, a collision of gay rights and traditional values. The New York Times. https://www.nytimes.com/2018/06/05/education/learning/christian-colleges-lgbtq-social-justice.html

- Retta, M. (2019, December 2). These LGBTQ students say their school treats them like second-class citizens. The Nation. https://www.thenation.com/article/archive/christian-university/
- Wheeler, D. R. (2016, March 14). *The LGBT politics of Christian colleges*. The Atlantic. https://www.theatlantic.com/education/archive/2016/03/the-lgbt-politics-of-christian-colleges/473373/
- 35 To test differences in importance to equip pre-service teachers with LGBTQ-inclusive skills and knowledge by whether teacher educators taught at religious institutions or not, an analysis of variance (ANOVA) was conducted and the effect was significant, F(1, 432) = 8.56, p < .01. To test differences in confidence engaging in LGBTQ-inclusive practices by whether teacher educators taught at religious institutions or not, an analysis of variance (ANOVA) was conducted and the effect was significant, F(1, 381) = 3.95, p < .05.
- To examine mean differences in the level of influence, a multivariate repeated measures analysis of variance (RMANOVA) was conducted among the following variables: Experience being trained as an elementary or secondary teacher (Preservice); Other college or graduate school experience (Other University); My experience as a K-12 educator (Experience K-12); In-service professional development as a K-12 educator (PD in K-12); Formal professional development as teacher educator (PD in TE); Professional conferences (Conferences); Professional associations (Associations); Readings (Readings); Current or former colleagues (Colleagues); The policies or practices of the schools where my students are placed (Policies); Curricular standards set by my department or institution (Curriculum); Former or current students (Students), and Own personal experiences (Personal) The multivariate effect was significant, Pillai's Trace = .70, F(12, ...)403) = 78.43, p < .001. Pairwise differences were considered at p < .05. All variables were significantly different with the following exceptions: Readings and Colleagues were not different from each other; Conferences was not different from Preservice or Students; Curriculum, Associations, and Policies were not different from each other; PD in TE was not difference from PD in K-12.
- 37 Greytak, E.A., Kosciw, J.G., Villenas, C. & Giga, N.M. (2016). From Teasing to Torment: School Climate Revisited, A Survey of U.S. Secondary School Students and Teachers. New York: GLSEN.
- 38 Differences between types of professional setting venues was tested with a series of paired t-tests. There were no significant mean difference at p<.05.
- To examine mean differences in receiving training in different kinds of LGBTQ topics, a multivariate repeated measures analysis of variance (RMANOVA) was conducted among the following variables: Family diversity and different family types/structures (Family); Sexual identity/identity development (Identity); Ways to support lesbian, gay, and bisexual youth (Support LGB); Intervention in anti-LGBTQ language (Intervention); Gender identity/transgender identity development (Gender); Queer theory, gender theory (Theory); Ways to support transgender youth (Support T); Assessing institutional practices for heterosexism and reinforcement of gender norms (Assess Institution); How to include LGBTQ topics/ issues into students' teaching/curricula (Curricula); LGBTQ history and/or significant LGBTQ people in the subject area you teach (History); Assessing curricular materials for anti-LGBTQ bias (Assess Curriculum); Any other type of LGBTQ-related professional development (Other). The multivariate effect was significant, Pillia's Trace = .44, F(11, 380) = 27.44, p < .001, $\eta_0^2 = .44$. Pairwise differences were considered at p < .05. All variables were significantly different with the following exceptions: Identity and Support LGB were not different; Support LGB, Intervention, and Gender were not different; Theory, Support T, and Other were not different; Support T and Assess Institution were not different; Assess Institution, Curricula, and Other were not different.
- 40 To test teacher educators received training on different LGBTQ topics more in pre-service or in-service training, a series of non-parametric Wilcoxon signed rank sum tests were conducted. Training was received more in pre-service in the following: family diversity, Z = -3.77, p < .001; queer theory, Z = -7.06, p<.001; sexual identity, Z = -4.63, p < .001; gender identity, Z = -2.62, p < .01.
- 41 To test if teacher educators received training on different LGBTQ topics more in pre-service or in-service training, a series of non-parametric Wilcoxon signed rank sum tests were conducted. Training was received more in in-service in the following: LGB youth support, Z = -3.50, p < .01; transgender youth support, Z =</p>

- -3.12, p<.01; intervention in biased language Z = -3.47, p<.01.
- The test if teacher educators received training on different LGBTQ topics more from other sources than either in pre-service or inservice training a series of non-parametric Wilcoxon signed rank sum tests were conducted. First, we compared receiving training from other sources to receiving training in-service, and second, we compared receiving training from other sources to receiving training in pre-service. Training was more likely from other sources than from in-service in: assessing curriculum for LGBTQ-bias training, Z = -2.84, p < .01; including LGBTQ content in curriculum, Z = -3.76, p < .001, and queer theory, Z = -5.82, p < .001. Training was more likely from other sources than from pre-service in: including LGBTQ content in curriculum, Z = -3.11, p < .01; LGB youth support, Z = -5.042, p < .001, transgender youth support, Z = -4.346, p < .001, intervention in biased language, Z = -3.89, p < .001.
- To test differences in the order in which teacher educators ranked influential sources of LGBTQ-related information, a Friedman's test was conducted and showed a statistically significant difference in ranking of sources of information, χ^2 (165) = 284.20, p < .001. Post hoc analysis was conducted using Wilcoxin signed-ranked test. Readings - higher than: colleagues p < .001, former or current students p < .001, other college or grad school experience p < .001, teacher ed PD p < .001, experience being trained as teacher p < .001, in-service PD p < .001, policies and practices p < .001, current or former students p < .01. Colleagues - higher than: experience being trained as teacher p < .001, in-service PD p < .0010.01, teacher ed PD p < .001, policies and practices p < .001; lower than: readings p < .001. Former or current students - higher than: experience being trained as teacher p < .001, in-service PD p < .001, teacher ed PD p < .001, policies and practices p < .001, other college or grad experiences p < .05; lower than: readings p < .01. Other college or grad school experience - higher than: experience being trained as teacher p < .001, in-service PD p < .001, policies and practices p < .001, teacher ed PD p < .001.01; lower than: current or former students p < .05, readings p < .05.001. Formal PD as a teacher educator - higher than: policies and practices p<.001, in-service PD p<.01, experience being trained as teacher p < .05; lower than: current or former students p < .05.001, readings p < .001, colleagues p < .001, other college or grad experience p < .01. Experience being trained as K–12 educator higher than: policies and procedures p < .001; lower than: current or former students p < .001, college or grad experience p < .001, policies and practices p < .001, readings p < .001, colleagues p< .001, teacher ed PD p < .05. In-Service PD as K-12 Educator - higher than: policies and practices p < .001; lower than: current or former students p < .001, other college or grad experiences p < .001, policies and practices p < .001, readings p < .001, colleagues p < .001, formal PD in teacher ed p < .01. Policies/ Practices: lower than all p < .01.
- 44 As of 2020, California, Colorado, Illinois, New Jersey, and Oregon have enacted laws requiring LGBTQ content in K-12 curriculum. Maryland Department of Education is reportedly also planning on such inclusion. See: https://www.glsen.org/policy-maps
- 45 Jennings, T. (2006). Addressing diversity in U.S. teacher preparation programs: A survey of elementary and secondary programs' priorities and challenges from across the United States of America. *Teaching and Teacher Education*, 23, 1258–1271.
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- To examine mean differences in inclusion of general diversity and sociocultural topics, a multivariate repeated measures analysis of variance (RMANOVA) was conducted among the following variables: Diversity issues/multicultural education (MCE); Social justice/equity issues (Social Justice); Family diversity and different family structures (Family Diversity); Classroom management (Classroom); Bullying/harassment or school safety (Bullying); Socio-emotional development (Socio); Gender Issues. The multivariate effect was significant, Pillai's Trace=.45 F(6, 411)=56.13, p<.001. Pairwise comparisons were considered at p < .05. All variables</p>

- were significantly different with the following exceptions: MCE and Social Justice were not different; Family Diversity and Socio were not different; Bullying and Gender were not different.
- To examine mean differences in inclusion of all kinds of topics, and to explore differences between general diversity and sociocultural and LGBTQ-specific topics, a multivariate repeated measures analysis of variance (RMANOVA) was conducted among the following variables: Diversity issues/multicultural education (MCE); Social justice/equity issues (Social Justice); Family diversity and different family structures (Family Diversity); Classroom management (Classroom); Bullying/harassment or school safety (Bullying); Socio-emotional development (Socio); Gender Issues; Ways to support LGB students (Support LGB); Sexual identity/ identity development (Identity Dev); Intervention in anti-LGBT language (Intervention); Ways to support transgender students (Support T); Gender identity/transgender identity development (Gender Identity); How to include LGBTQ topics/issues into students' teaching/curricula (Include Curriculum); Assessing institutional practices for heterosexism and reinforcement of gender norms (Assess Practices); Assessing curricular materials for anti-LGBT bias (Assess Curriculum); Queer theory, gender theory (Theory); LGBTQ history and/or significant LGBTQ people in the subject area you teach (History); Another LGBTQ-specific topic (Other). The multivariate effect was significant, Pillai's Trace = .79, F(17, 338) = .76.75, p < .001. Pairwise comparisons were considered at p < .05 and all diversity and sociocultural issues topics were higher than all LGBTQ-specific topics.
- To examine mean differences in inclusion of LGBTQ-specific topics a multivariate repeated measures analysis of variance (RMANOVA) was conducted among the following variables: Ways to support LGB students (Support LGB); Sexual identity/identity development (Identity Dev); Intervention in anti-LGBT language (Intervention); Ways to support transgender students (Support T); Gender identity/ transgender identity development (Gender Identity); How to include LGBTQ topics/issues into students' teaching/curricula (Include Curriculum); Assessing institutional practices for heterosexism and reinforcement of gender norms (Assess Practices); Assessing curricular materials for anti-LGBT bias (Assess Curriculum); Queer theory, gender theory (Theory); LGBTQ history and/or significant LGBTQ people in the subject area you teach (History); Another LGBTQ-specific topic (Other). The multivariate effect was significant, Pillai's Trace = .49, F(10, 369) = 35.57, p < .001. Pairwise comparisons were considered at p < .05. All variables were significantly with the following exceptions: Support LGB, Identity Dev, and Intervention were not different; Support T, Gender Identity, and Include Curriculum were not different; Include Curriculum and Assess Practices were not different; History, Theory, and Other were not different.
- To examine the difference in rates of LGBTQ inclusion in different types of courses, a series of paired-sample t-tests was conducted. Multicultural, diversity, and equity education courses was different from all other courses at ρ < .001: sociocultural foundations t(194) = 6.17; child/adolescent development t(165) = 6.01; educational psychology t(130) = 6.55; educational policy and leadership t(148) = 11.10; clinical internship/student teaching/practicum t(207) = 10.33; special education t(151) = 7.34; behavior/classroom management t(188) = 9.75; learning and cognition t(172) = 8.81; teaching methods/pedagogy t(235) = 14.42; curriculum development and lesson planning t(201) = 9.95; ESL t(148) = 12.68; subject-specific methods t(222) = 14.13; assessment t(169) = 11.89.</p>
- 50 To examine the differences in methods of LGBTQ inclusion, a series of paired-sample t-tests was conducted. Class discussions and activities was different from all other methods at p < .001: readings t(495) = 4.60; evaluation of case studies t(495) = 17.71; films or videos t(495) = 18.51; guest speakers or panels t(495) = 18.26; analyzing classroom practices t(495) = 20.21; specific writing assignments t(495) = 20.50; providing specific models to address LGBTQ t(495) = 27.72; suggested involved in LGBTQ activities at K-12 school t(495) = 24.43; role-playing scenarios t(495) = 24.67; research projects t(495) = 24.78; PD by outside groups t(495) = 27.65; develop sample syllabus/lesson plans t(495) = 28.74; webinars/other virtual component t(495) = 29.37; theatrical performances t(495) = 33.16; address in TPAs t(495) = 33.16; simulations/lab experiences t(495) = 33.16, other t(495) = 27.29.
- 51 To examine the differences in methods of LGBTQ inclusion, a series of paired-sample t-tests was conducted. Readings was

- higher than all other methods, excluding class discussions, at px.001: evaluation of case studies t(495)=14.09; films or videos t(495)=15.36; guest speakers or panels t(495)=14.51; analyzing classroom practices t(495)=14.70; specific writing assignments t(495)=17.03; providing specific models to address LGBTQ t(495)=19.41; suggested involved in LGBTQ activities at K-12 school t(495)=19.79; role-playing scenarios t(495)=21.05; research projects t(495)=21.00; PD by outside groups t(495)=22.48; develop sample syllabus/lesson plans t(495)=23.85; webinars/other virtual component t(495)=24.34; theatrical performances t(495)=27.18; address in TPAs t(495)=27.18; simulations/lab experiences t(495)=27.41, other t(495)=22.31.
- To examine mean differences in reported helpfulness of different resources a multivariate repeated measures analysis of variance (RMANOVA) was conducted among the following variables: Publications; Students in my courses (Students); My teaching colleagues (Colleagues); Scholarly research (Research); Resources from other education or social service organizations or other groups (Org Resources); LGBTQ-related organizations or groups (LGBTQ orgs); On-campus LGBTQ groups, centers, or departments (Campus Groups); Media; Stated tenets or values of my institution or department (Values); Administration; Professional associations (Associations); Professional teaching standards (Standards); Curricular standards or syllabi from my institution or department (Syllabus). The multivariate effect was significant, Pillai's Trace = .53, F(12, 252) = 23.90, p < .001. Pairwise comparisons were considered at p<.05. All variables were significantly different with the following exceptions: Publications, Students, and Colleagues were not different; Students, Colleagues, and Research were not different; Colleagues, Research, LGBT orgs, Org Resources, and Media were not different; Org Resources, Media, Campus Groups, Administration, and Values were not different; Administration, Values, and Associations were not different
- To examine the differences in LGBTQ-supportive activities, a series of paired-sample t-test was conducted. "Visual signs of support", "attending an LGBTQ training", and "mentored LGBTQ teacher candidate" were significantly different from "participated in LGBTQ campus center or LGBTQ studies program", "LGBTQ issues in own research", "advised LGBTQ group", and "provided LGBTQ PD to colleagues" at p < .05. Visual signs of support: LGBTQ training t(582) = 1.51, p = .132; mentored t(582) = 2.40, p = .017; LGBTQ campus center or program t(582) = 4.97, p < .001; research t(545) = 7.07, p < .001; advised group t(582) = 8.62, p < .001; PD t(552) = 9.26, p < .001. Attend LGBTQ training: Visual signs of support t(582) = -1.51, p = .132; mentored t(582)= .89, p = .373; LGBTQ campus center or program t(582) = -3.33, p < .001; research t(545) = 5.63, p < .001; advised group t(582)= 7.13 p < .001; PD t(552) = 8.12, p < .001. Mentored LGBTQ teacher candidates: visual signs of support t(582) = -2.40, p =.017; attend training t(582) = -.89, p = .373; LGBTQ campus center or program t(582) = 2.07, p = .039; research t(545) =5.04, p < .001; advised group t(582) = 6.60, p < .001; PD t(552)= 7.17, p < .001.
- To examine the differences in LGBTQ-supportive activities, a series of paired-sample t-test was conducted. "LGBTQ issues in own research", "advised LGBTQ group", and "provided LGBTQ PD to colleagues" were significantly different from "visual signs of support", "attending an LGBTQ training", "mentored LGBTQ teacher candidate", and "participated in LGBTQ campus center or LGBTQ studies program" at p<.01. LGBTQ issues in own research: visual signs of support t(545) = -7.70, p < .001; LGBTQ training t(545) = -5.63, p < .001; mentored t(545) = -5.04, p < .001; LGBTQ campus center or program t(545) = -2.65, p = .008; advised group t(545) = 1.62, p = .106; PD t(545) = 2.66, p <.01. Advised LGBTQ group: visual signs of support t(582) = -8.62, p < .001; LGBTQ training t(582) = -7.13, p < .001; mentored t(582) = -6.60, p < .001; LGBTQ campus center or program t(582) = -4.63, p < .01; research t(545) = -1.62, p = .106; PD t(552)= -.43, p = .667. Provided LGBTQ PD: visual signs of support t(552) = -9.26, p<.001; LGBTQ training t(552) = -8.12, p < .001; mentored t(552) = -7.17, p < .001; LGBTQ campus center or program t(552) = -5.14, p < .01; research t(545) = -2.66, p < .008; advised group t(552) = .43, p = .667.
- To examine the difference in the rate of inclusion of general diversity and sociocultural topics by gender, an analysis of variance (ANOVA) was conducted. The univariate effect was significant, F(2, 448) = 4.55, p < .05.

- 56 To examine the difference in the rate of inclusion of general diversity and sociocultural topics by LGBTQ status, an analysis of variance (ANOVA) was conducted. The univariate effect was not significant.
- 57 To examine the difference in the rate of inclusion LGBTQ-specific topics by LGBTQ status, an analysis of variance (ANOVA) was conducted. The univariate effect was significant, F(1, 440) = 26.78, p < .001.
- 58 To examine the difference in rate of inclusion of LGBTQ-specific topics by gender, an analysis of variance (ANOVA) was conducted. The effect was not significant.
- To examine the difference in rates of inclusion of general diversity and sociocultural topics and LGBTQ-specific topics by years of experience, analyses of variance (ANOVA) were conducted. The effect for general diversity and sociocultural topics was not significant. The effect for LGBTQ-specific topics was significant, $F(4, 447) = 3.41 \ p < .01$. Post hoc comparisons indicate that "less than a year of experience" was different from "6 or more years of experience" and "more than 10 years" at p < .05.
- To examine the difference in rates of inclusion of general diversity and sociocultural topics and LGBTQ-specific topics by school level taught, analyses of variance (ANOVA) were conducted. The effect for general diversity and sociocultural topics was not significant. The effect for LGBTQ-specific topics was significant, F(2, 411) = 7.32, p = .001. Post hoc comparisons indicate that "elementary only" was different from "secondary only" and "elementary and secondary" at p < .05.
- 61 The relationship between the type of institution one taught at and teacher educators' inclusion of general diversity and sociocultural topics was examined through multiple linear regression with whether or not teacher educators taught at different types of institutions (including research, liberal arts, religious, and state institutions) as the independent variables and inclusions of general diversity topics as the dependent variable. The model was not significant.
- 62 The relationship between the type of institution one taught at and teacher educators' inclusion of LGBT-specific topics was examined through multiple linear regression with whether or not teacher educators taught at different types of institutions (including research, liberal arts, religious, and state institutions) as the independent variables and inclusions of general diversity topics as the dependent variable. The model accounted for a significant portion of the variance (Adj. $\Delta R2 = .02$, p < .05). Teaching at a state university ($\beta = .11$, p < .05) was a significant predictor of inclusion of LGBTQ-specific topics. None of the other types of institution were statistically significant predictors of inclusion of LGBTQ-specific topics.
- 63 To examine the difference in rates of LGBTQ-related action and advocacy by sex, analyses of variance (ANOVA) were conducted. The effect for action was significant, *F*(2, 531) = 4.49, *p* < .05. The effect for advocacy was not significant.
- To examine whether rates of LGBTQ-related action and advocacy varied by age, a correlation was conducted. There was no significant effect of age on action, r(533) = -.083, p = .057. There was a significant effect of age on advocacy, r(533) = -.115, p < .01.
- 65 To examine the difference in rates of LGBTQ-related action and advocacy by LGBTQ status, analyses of variance (ANOVA) were conducted. The effect for action was significant, F(1, 523) = 63.43, p < .001. The effect for advocacy was significant, F(1, 523) = 70.61, p < .001.</p>
- The relationship between the type of institution one taught at and teacher educators' LGBTQ-supportive actions, two multiple linear regressions were conducted with whether or not teacher educators taught at different types of institutions (including research, liberal arts, religious, and state institutions) as the independent variables and engaging in LGBTQ-supportive activities and engaging in LGBTQ-supportive advocacy as the dependent variables. The model for LGBTQ-supportive advocacy accounted for a significant portion of the variance (Adj. $\Delta R2 = .02$, p < .01). Teaching at a research university ($\beta = .10$, p < .05) was a significant predictor of LGBTQ-supportive activities. None of the other types of institution were statistically significant predictors of inclusion of LGBTQ-specific topics. The model for LGBTQ-supportive advocacy was not significant.

- To examine differences in the prevalence of each item, a multivariate repeated measures analysis of variance (MANOVA) was performed. Results indicated significant differences across items, Pillai's Trace = .74, F(12,353) = 83.11, p < .001. Pairwise were considered at p<.01. All items were significant different except for: Relevance and Time; Not Brought Up and Other Courses; Students with Community, Institutional Community with Students, Institutional; Institutional with Policy, Community, Students; Policy with Institutional, Community, Beliefs, Authority; Authority with Policy, Career, Importance, and Beliefs; Beliefs with Policy, Institutional, Importance, Authority; Career with Importance, Beliefs, Authority; Importance with Career, Beliefs, Authority.
- Relationships were examined through a series of Pearson correlations among all types of barriers. To account for the number of correlations, a more conservative significance level was considered, p<.01.</p>
- Time Constraints was significantly related to: Students, r = .17; Conservative Community, r = 19; Other Courses, r = 16.
- 70 Policy was significantly related to: Institutional Community, r = .17; Conservative Community, r = 13.
- 71 Relationship between Policy and Knowledge & Preparation was marginally significant: r = .11, p < .05.
- 72 Concern about Career was significantly related to: Institutional Community, r = .13; Students, r = .21.
- To examine the probability of having any barrier to LGBTQ inclusion based on personal and institutional characteristics, we conducted a logistic regression with Any Barriers as the dependent variable, entering all independent variables on a single step: personal characteristics (age, gender, and sexual orientation); target school-level of pre-service teachers (early childhood, elementary, secondary), and types of institution (research, liberal arts, for profit, state-funded). The regression was significant, $\chi^2(15) = 50.38$, $\rho < .001$. Odds ratios were considered at $\rho < .05$, and were only significant for target school-level: Early Childhood, OR = .63; Elementary, OR = 1.78; Secondary, OR = .38.
- 74 To examine the probability of specific types of barriers to LGBTQ inclusion based on personal and institutional, we conducted a series of logistic regressions with each barrier type as the dependent variable, entering all independent variables on a single step: personal characteristics (age, gender, and sexual orientation); target school-level of pre-service teachers (early childhood, elementary, secondary), and types of institution (research, liberal arts, for profit, state-funded). The regression analyses were significant for: Knowledge & Preparation, Relevance, Students, and Institutional Community.
- Results of a logistic regression with the barrier Knowledge & Preparation as the dependent variables were significant: $\chi^2(14) = 48.36$, p < .001. Odds ratios were considered at p < .05: LGBTQ Status, OR = .15; Cisgender (male), OR = 2.04; Secondary, OR = .61.
- 76 Results of a logistic regression with the barrier Relevance as the dependent variables were significant: $\chi^2(14) = 39.07$, p < .001. Odds ratios were considered at p < .05: Region (ref. Northeast), Midwest, OR = .55, West, OR = .43; Research University, OR = .35; Liberal Arts: .51; Teaching Elementary Pre-Service: 1.76.
- Results of a logistic regression with the barrier Students as the dependent variables were significant: $\chi^2(14) = 44.90$, p < .001. Odds ratios were considered at p < .05: LGBTQ Status, OR = .40; Cisgender (male), OR = .17; Region (ref. Northeast), Midwest, OR = 3.60; Research University, OR = 2.87; Liberal Arts: .51; Teaching Elementary Pre-Service: 1.76.
- Results of a logistic regression with the barrier Institutional Community as the dependent variables were significant: $\chi^2(14) = 44.90$, p < .001. Odds ratios were considered at p < .05: Age, OR = .95; LGBTQ Status, OR = 3.23; Teaching Early Childhood PreService: 0.36.
- 79 von der Embse, N. P., Pendergast, L. L., Segool, N., Saeki, E., & Ryan, S. (2016). The influence of test-based accountability policies on school climate and teacher stress across four states. Teaching and Teacher Education, 59, 492–502.
 - Wronowski, M., & Urick, A. (2019). Teacher and School Predictors of Teacher Deprofessionalization and Demoralization in the United States. *Educational Policy*, 0895904819843598.
- 80 Grimmett, P.P., Fleming, R. & Trotter, L. (2009) Legitimacy and

- identity in teacher education: a micro-political struggle constrained by macro-political pressures, *Asia-Pacific Journal of Teacher Education*, *37*:1, 5–26.
- 81 See: https://www.glsen.org/policy-maps
- 82 We examined the relationship between tenure status and LGBTQ status on Institutional Community and Students using a 2x2x2 crosstab analyses tenured vs. not, LGBTQ or not, and barrier reported or not. For Institutional Community, the analysis was marginally significant among non-tenured educators: $\chi^2(1) = 3.83$, p < .10. Among non-LGBTQ teacher educators who were not tenured faculty, 6.8% reported this as a barrier compared to 14.9% of LGBTQ teacher educators who were not tenured. For Students, the analysis was significant among non-tenured educators: $\chi^2(1) = 15.76$, p < .001. Among non-LGBTQ teacher educators who were not tenured faculty, 6.3% reported this as a barrier compared to 25.5% of LGBTQ teacher educators who were not tenured. Among tenured faculty, those who identified as LGBTQ were marginally more likely to also report this as a barrier (22.6% for LGBTQ vs. 10.3% for non-LGBTQ): $\chi^2(1) = 3.64$, p < .10.
- 83 Esseks, J. (2020, June 15). Supreme Court says firing workers because they are LGBTQ is unlawful discrimination. ACLU.org. https://www.aclu.org/news/lgbt-rights/supreme-court-says-firing-workers-because-they-are-lgbtq-is-unlawful-discrimination/
- To examine the most salient predictors of LGBTQ-inclusive practice when considering all the factors simultaneously, we computed a dichotomous mean split variable indicating higher vs. lower frequency of LGBTQ inclusion in teaching practice. A logistic regression was conducted where the dichotomous independent variable was regressed onto all independent variables of interest listed below. The analysis was statistically significant, χ² (23) = 66.26, p < .001. Significant odds ratios and their 95% confidence intervals shown in the figure.</p>

Personal Demographics: race/ethnicity (White vs. Person of Color); LGBTQ (identifies as LGBTQ vs. not LGBTQ); region (Northwest vs. South, Midwest, West);

Professional Characteristics: faculty status (faculty only vs. all others); levels of pre-service taught - early childhood, elementary, secondary; type of institution - research university, liberal arts college, state university, community college, for-profit institution;

Importance of Topics for Students to Learn: social justice/equity; diversity/multicultural education; socioemotional development; character education; bullying/harassment; gender issues; classroom management; LGBTQ content (4-point Likert-type scale from 1 "very unimportant" to 2 "very important");

Institutional Supportiveness of LGBT People: how supportive institution is of LGBTQ people (5-point Likert type item from 1 "very unsupportive: to 5");

Barriers to LGBTQ Inclusion: opinion of colleagues; opinions of students; lack of personal knowledge; institutional policies; negative effect on career; amount of time; conservative community; LGBTQ topics not relevant to area of teaching; LGBTQ topics not important; opposing personal beliefs; topics are not raised in class; LGBTQ topics taught covered in other courses (dichotomous variables indicating presence of barrier);

Prior Career Influences: experience being trained as an elementary or secondary teacher; other college or graduate school experience; my experience as a K–12 educator; in-service professional development as a K–12 educator; formal professional development as teacher educator; professional conferences; professional associations (e.g. AACTE, ATE, NAME); readings (e.g. professional journals and publications); current or former colleagues; the policies or practices of the schools where my students are placed; curricular standards set by my department or institution; former or current students; own personal experiences (4-point Likert type scale from 1 "not at all influential" to 4 "very influential").

Professional Development: indicating degree of exposure to LGBTQ issues in professional development, from 1 to 4, based on standard deviations around the mean of number of LGBTQ topics covered.

Self-efficacy: mean scale score of 10, 4-point Likert-type items assessment level of confidence in LGBTQ inclusion and practices, from 1 "not at all confident" to 4 "very confident."

48% of elementary school teachers felt comfortable answering questions about LGB people and 41% felt comfortable answering questions about transgender people. Source: GLSEN and Harris

- Interactive (2012). *Playgrounds and Prejudice: Elementary School Climate in the United States, A Survey of Students and Teachers.*New York: GLSEN.
- 86 Pearson correlations were performed between degree of professional development and the set of importance items: social justice/equity: r=.11, p < .05; diversity/MCE: r=.10, p < .05; socioemotional development: r=.02, NS; character education: r=-.01, NS; bullying/harassment: r=0.11, p < .05; classroom management: r=-.02, NS; LGBT content: r=.21, p < .001.</p>
- 87 McCarthy, J. (2017, May 18). Americans Split Over New LGBT Protections, Restroom Policies. Gallup. https://news.gallup.com/poll/210887/americans-split-new-lgbt-protections-restroom-policies.aspx
- 88 Nelson Laird, T.F. (2014). Reconsidering the Inclusion of Diversity in the Curriculum, *Diversity and Democracy (17)*, 12–14.
- 89 Kosciw, J. G., Clark, C. M., Truong, N. L., Zongrone, A. D. (2020). The 2019 National School Climate Survey: The experiences of lesbian, gay, bisexual, transgender, and queer youth in our nation's schools. New York: GLSEN.
- 90 Kosciw, J. G., Clark, C. M., Truong, N. L., Zongrone, A. D. (2020). The 2019 National School Climate Survey: The experiences of lesbian, gay, bisexual, transgender, and queer youth in our nation's schools. New York: GLSEN.
- 91 Latinx is a variant of the masculine "Latino" and feminine "Latina" that leaves gender unspecified and, therefore, aims to be more inclusive of diverse gender identities, including nonbinary individuals. To learn more: https://www.meriam-webster.com/wordsat-play/word-history-latinx



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