EMPIRICAL RESEARCH

Who, What, Where, When, and Why: Demographic and Ecological Factors Contributing to Hostile School Climate for Lesbian, Gay, Bisexual, and Transgender Youth

Joseph G. Kosciw · Emily A. Greytak · Elizabeth M. Diaz

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Abstract This study examines how locational (region and locale), community-level (school district poverty and adult educational attainment), and school district-level (district size and ratios of students to key school personnel) variables are related to indicators of hostile school climate for lesbian, gay, bisexual, and transgender (LGBT) youth. Indicators of hostile climate included frequency of homophobic remarks and victimization regarding sexual orientation and gender expression. We used data from a national survey of LGBT secondary school students (N = 5,420; 57.6% female; 65.5% White; mean age = 15.9). Results from regression analyses demonstrated that LGBT youth in rural communities and communities with lower adult educational attainment may face particularly hostile school climates. School district characteristics contributed little to the variation in LGBT youth's experiences. Findings highlight the importance of considering the multiple contexts that LGBT youth inhabit, particularly as they pertain to educational experiences.

Keywords LGBT youth · School climate · Bullying and harassment · Contextual factors

J. G. Kosciw (⊠) · E. A. Greytak · E. M. Diaz GLSEN (Gay, Lesbian and Straight Education Network), 90 Broad Street, 2nd Floor, New York, NY 10004, USA e-mail: jkosciw@glsen.org

E. A. Greytak

e-mail: egreytak@glsen.org

E. M. Diaz

e-mail: ediaz@glsen.org



Introduction

In the last several decades, an increasing body of research has emerged about the educational experiences of lesbian, gay, bisexual, and transgender (LGBT) youth, much of which demonstrates that the climates of US middle and high schools are generally unsupportive and unsafe for many of these youth. Youth who are LGBT often report experiencing harassment, discrimination, and other negative events in school, often specifically related to their sexual orientation, gender identity, and/or how they express their gender. Such experiences include high levels of verbal and physical harassment and assault (Bontempo and D'Augelli 2002; D'Augelli et al. 2002; Kosciw and Diaz 2006), sexual harassment (Bochenek and Brown 2001; Fineran 2001), social exclusion and isolation (Ueno 2005), and other interpersonal problems with peers (Pearson et al. 2007; Russell et al. 2001). These experiences negatively impact LGBT youth's access to education as they are linked to increased absenteeism due to feeling uncomfortable or unsafe in school, increased discipline problems, and lower levels of school engagement and academic achievement (Kosciw and Diaz 2006; Murdock and Bolch 2005; Russell et al. 2006). In addition, in-school victimization is related to increased health risk behaviors among LGBT adolescents, such as substance abuse and attempted suicide, as well as harmful psychological effects, such as depression and low self-esteem (Bontempo and D'Augelli 2002; Wyss 2004).

An adolescent's experiences in school and the school environment itself are influenced by larger contexts, including the school's local community and geographic area. In Bronfenbrenner's (1977) ecological perspective on human development, the child is at the center of multiple levels of influence along a proximal-distal dimension based

on the immediacy of direct influence. Understanding the interactions between the individual and the environment is crucial to understanding the ways in which individuals behave and develop. Thus, in examining the school experiences of LGBT youth, it is critical to consider these various contexts.

Far from being a homogenous population, LGBT youth have varying life experiences due in large part to differing individual demographic characteristics and the characteristics of the communities in which they reside. Personal characteristics, such as gender identity (Bontempo and D'Augelli 2002; Kosciw and Diaz 2006; Sausa 2005), and race or ethnicity (Kosciw and Diaz 2006; McCready 2001; Parks 2001), shape the educational and other life experiences of LGBT youth. Thus, it is important to examine any such potential individual demographic differences in these youth's experiences of school safety and victimization.

Although the research on individual demographic differences in the school experiences of LGBT youth is limited overall, there is some evidence indicating that their experiences vary based on personal characteristics, such as gender and race or ethnicity. Existing research indicates that gay and bisexual males may be more likely to experience victimization based on their sexual orientation and gender expression than their lesbian and bisexual female peers (D'Augelli et al. 2002; Kosciw and Diaz 2006). Additionally, in a recent national study of LGBT youth's school-related safety and victimization experiences, Kosciw and Diaz (2006) found that transgender youth experienced higher levels of victimization than LGB youth who were not transgender. With regard to racial/ethnic differences in school safety and victimization experiences, Kosciw and Diaz (2006) found that White LGBT students experienced less racially motivated harassment in school than LGBT youth of color, but they did not find racial/ethnic group differences in harassment related to sexual orientation or gender expression. Research on the general youth population has found racial/ethnic group differences in the frequency of being bullied at school; specifically, African American/Black students were bullied less often than White or Latino/a youth (Nansel et al. 2001). Although there is no existing research on age differences in the school experiences of LGBT youth, research on the general youth population indicates that junior high/middle school students are at greater risk for harassment and bullying than high school students (Nansel et al. 2001; Smyser and Reis 2002; Unnever and Cornell 2004).

In line with Bronfenbrenner's ecological perspective, LGBT youth's experiences of safety and victimization in school may be shaped not only by their individual characteristics, but also by the characteristics of their schools and larger communities. Experiences of LGBT youth may be influenced by these more distal characteristics in ways that are similar to and different from the general student population. Research about school safety and violence among the general population of US secondary school students has found that characteristics such as location can make a difference in students' experiences. For example, youth in suburban schools experienced lower levels of violent victimization in school than youth in urban schools (Dinkes et al. 2007). Studies that rely on national crime and safety survey data are limited in that the survey instruments do not include items that would allow researchers to identify LGBT respondents and thus prevent the examination of the specific experiences of these youth (e.g., Dinkes et al. 2007; Nansel et al. 2001).

Research that specifically examines differences in LGBT youth's experiences by school characteristics suggests that schools with certain characteristics, such as a large student body, may offer safer climates for LGBT youth. In a study of the general population of Massachusetts high school students, Szalacha (2003) found that those in schools with a large student population and a higher percentage of college-bound graduates reported a school climate more tolerant of lesbian, gay, and bisexual youth than those in other types of school. A more recent study of sexual minority youth (those that identified as LGB or reported same-sex attractions or sexual behaviors) in Massachusetts high schools found that youth attending large, urban schools with more low income and racial/ ethnic minority students reported lower levels of victimization and fewer missed days of school for safety reasons than sexual minority youth in schools that were small or lacked economic and racial diversity (Goodenow et al. 2006).

Findings from Kosciw and Diaz's (2006) national study of LGBT youth's school experiences also suggest that characteristics of the larger community may affect the school experiences of LGBT youth. The authors found regional differences, such that youth in the South and Midwest were significantly more likely to hear homophobic language in school and to experience harassment related to sexual orientation than youth in the Northeast or West. In addition, they found differences by locale—LGBT youth in rural communities experienced more harassment and assault related to sexual orientation and gender expression than those in urban or suburban communities (Kosciw and Diaz 2006).

Current Study

Although past research provides a wealth of information that has advanced our understanding of the school experiences of LGBT youth, there are nevertheless some limitations with this body of literature. Few national-level



studies about LGBT youth examine the ways in which their school experiences may vary based on school and community characteristics (e.g., school size, socioeconomic factors, and geographic location) that potentially influence school climate. To our knowledge, there are no national studies examining the impact of these multiple variables in one analysis. Much of the past research on the effects of various school and community characteristics has been regional in scope and not necessarily generalizable to a larger population of LGBT youth. Further, most existing studies (both national and regional) are limited in that the data used in the analysis did not include items that would allow researchers to identify students who were transgender. In this current study, we seek to address some of the limitations of past research through an analysis of a large, national sample of LGBT-identified US secondary school students, examining associations between school district and community characteristics and indicators of school climate for LGBT youth. We first examine how LGBT youth's experiences with biased remarks and victimization in school differ based on individual demographic characteristics. We then examine how locational characteristics, school district characteristics, and socioeconomic characteristics of the larger community may impact LGBT youth's school-related experiences with regard to hearing homophobic language and being victimized because of their sexual orientation and gender expression, above and beyond differences related to individual demographic characteristics.

Given that demographic characteristics of gender, age, and race/ethnicity are most proximal, we would expect them to be the most predictive of LGBT youth's experiences in school. As previously discussed, past research has found differences in students' experiences with bullying and harassment based on gender, and to a lesser extent, age and race/ethnicity. However, this research has not examined these demographic characteristics together in one analysis, and thus, little is known about the unique contributions of each characteristic to the school experiences of LGBT youth. Therefore, we hypothesized that, as a whole, demographic characteristics would account for a significant portion of the variance in LGBT youth's exposure to homophobic language and victimization based on sexual orientation and gender expression, but did not have specific hypotheses about the individual contributions of each characteristic.

In order to examine the specific contributions of more distal characteristics, we would need to control for the contributions of the more proximal, demographic characteristics. Although previous research has found some differences in LGBT youth's school experiences based on locational, community, and school district-level characteristics, this research did not take into account youth's

individual demographic characteristics. Furthermore, for the most part, this prior research considered the locational, community, and school district-level characteristics independently of each other, and did not examine the unique contributions of these characteristics together in one analysis. Therefore, the current study, which examines the contributions of these characteristics in one analysis while controlling for demographic characteristics, is largely exploratory in nature. As such, we did not develop specific hypotheses about the relationship between locational, community, and school district characteristics and LGBT youth's school experiences, above and beyond the effects of individual demographic characteristics.

Method

Sampling

Data came from a larger study on the school-related experiences of LGBT secondary school students (Kosciw et al. 2008). To obtain a more representative sample of LGBT youth, we used two methods to locate participants. First, we secured participation from 50 randomly selected community-based groups or organizations serving LGBT youth, of which 38 sent back completed surveys. Second, we made the survey available online, and notices regarding the survey were posted on LGBT youth-oriented listservs and websites. We also advertised the online survey on the social networking site MySpace, targeting users who were between 13 and 18 years old and who indicated on their user profile that they were gay, lesbian, or bisexual.

The full sample consisted of 6,209 LGBT students between the ages of 13 and 21 from all 50 states and the District of Columbia. Participants were excluded if they were not in a K-12 school during the 2006–2007 school year, were not in school in the United States, or identified as heterosexual (except for those who were also transgender). For the purposes of the current study, participants were also excluded if they had not provided school district information, resulting in a sample of 5,420 youth. Sample demographics are shown in Table 1. About two-thirds of the 5,420 youth in this study were White, more than half identified as female, and slightly more than half identified as gay or lesbian. Almost all were in public schools.

Measures

Biased Remarks

Participants were asked two five-point Likert-type questions about the frequency of hearing homophobic remarks in school (1 = Never, 2 = Rarely, 3 = Sometimes,



Table 1 Sample demographic characteristics

N = 5,420	%	n
Gender identity		
Male	33.8	1,834
Female	57.6	3,124
Transgender	4.5	245
Other gender identity	4.0	217
Sexual orientation		
Gay or lesbian	53.9	2,920
Bisexual	41.6	2,255
Other sexual orientation	4.4	241
Race or ethnicity		
White	65.5	3,532
African American or Black	5.5	298
Hispanic or Latino/a	12.4	668
Asian or Pacific Islander	3.9	209
Native American	6.5	350
Other racial/ethnic identity	6.2	336
School type		
Public	92.5	5,037
Religious-affiliated	2.7	146
Other private or independent (not religious-affiliated)	4.4	237
Average age $= 15.9$ years		

4 = Often, 5 = Frequently). The first question was related to the frequency of hearing "gay" used in a negative or derogatory manner, such as in the expression "that's so gay" or "you're so gay" (M = 4.57, SD = .76). The second question asked about hearing "other types of homophobic remarks," such as the homophobic epithets "faggot" or "dyke" (M = 4.09, SD = .97).

Victimization

Participants were asked about the frequency of experiencing verbal harassment, physical harassment, and physical assault in school in the past school year related to their sexual orientation or gender expression, using fivepoint Likert-type questions (1 = Never, 2 = Rarely, 3 =Sometimes, 4 = Often, 5 = Frequently). In order to assess youth's overall victimization for sexual orientation and for gender expression, a weighted variable was created for each measuring the frequency of victimization across the three severity levels (verbal harassment, physical harassment, physical assault), giving more weight to physical harassment ($\times 1.5$) and, in turn, physical assault ($\times 3$) because of the increasing severity of the events. One reason for creating this weighted variable was that each type of victimization (i.e., related to sexual orientation or to gender expression) was moderately to highly correlated across severity levels. For both victimization related to sexual

Table 2 Incidence of harassment and assault based on sexual orientation and gender expression

N = 5,420	M (SD)
Sexual orientation	
Verbal harassment	3.28 (1.38)
Physical harassment	2.00 (1.36)
Physical assault	1.48 (1.07)
Gender expression	
Verbal harassment	2.57 (1.42)
Physical harassment	1.65 (1.16)
Physical assault	1.30 (0.87)

orientation and victimization related to gender expression, physical harassment was highly correlated with both verbal harassment (.62 for both types) and physical assault (.72 and .71, respectively), and verbal harassment and physical assault were moderately correlated (.44 for both types). In addition, the more severe types of victimization occurred less frequently. Therefore, we believe that the weighted variables provide better estimates of overall victimization (see Table 2 for the means and standard deviations for the original six individual harassment and assault variables). Possible scores on the weighted victimization variable ranged from a minimum of 5.5 to a maximum of 27.5 (M = 10.74, SD = 5.77 for sexual orientation; M = 8.94, SD = 4.93 for gender expression).

Demographic and Locational Characteristics

Participants self-reported their race/ethnicity, gender, age, state, and the name and zip code of their school district. Region was coded into four groups: Northeast, South, Midwest and West. Locale (urban, suburban, and rural) was created matching school district locale information from the National Center for Education Statistics (NCES) with the school district name and/or zip code provided by the participants (United States Department of Education 2006).

Community-Level and School District Characteristics

Using school district codes, we matched participants with data from the US Census on community-level educational attainment (United States Department of Education 2000) and data from NCES on school district poverty (percentage of students eligible for free or reduced lunch), district size (total number of students), student-to-teacher ratio, and number of student support services personnel in the district (United States Department of Education 2006). The student-to-student support personnel ratio was computed from the total district size and the total number of those personnel (e.g., guidance counselors, psychologists).



Results

In order to examine how locational, community, and school district variables may relate to indicators of hostile school climate for LGBT youth, we conducted a series of hierarchical ordinary least squares regressions. Personal demographic characteristics of the participants were entered in the first step as our previous research found differences by gender and race/ethnicity with regard to the dependent variables (Kosciw et al. 2008), and as we were interested in the contribution of the more distal variables once these proximal ones were controlled for. In addition, we entered a dichotomous variable on the first step indicating public school (versus private school) attendance as a control variable given that we examined the contribution of school district-level characteristics on school climate indicators. In the remaining steps, the sets of independent variables were introduced in order of what we determined to be most-to-least distant from the individual: region, then locale, followed by community-level characteristics (community-level poverty and college attainment rate) and finally by school district-level variables (district size, student-to-teacher ratio, and student-to-student support personnel ratio).

Homophobic Remarks

Results of the regressions for the two homophobic remarks variables are shown in Table 3. The column label "Adj. ΔR^2 " represents the increment in explained variance adjusted for degrees of freedom at each step upon entry of the set. The standardized regression coefficients (β) and their standard error (SE $_{\beta}$) are from the final equation with all variables entered. Thus, they represent the unique contributions of each variable to the model with other variables held constant. With regard to remarks using "gay" in a derogatory manner, such as "that's so gay," there were significant differences related to race/ethnicity: African American/Black and Asian/Pacific Islander youth were less likely to hear these types of expressions than White youth.

The two sets of locational variables each accounted for a significant amount of variance in remarks using "gay" in a derogatory manner. When we first entered the regional variables into the equation, the dummy variable "West" was significantly related to hearing remarks such as "that's so gay" ($\beta = -.05$, p = .01), such that youth in the West were less likely to hear this type of remark in school than those in the Northeast. Yet, in the final step of the equation, this variable was no longer significant. The set of locale variables accounted for a significant amount of variance in remarks using "gay" in a derogatory manner. At this step, the dummy variable "Urban" was significant, indicating

that youth in urban areas reported a lower frequency than youth in rural areas. However, this variable fell out of significance when the community-level SES indicators were introduced.

Regarding the set of community-level variables, both indicators were significantly related to the frequency of this type of remark, such that youth from communities with a higher percentage of college graduates and with higher poverty levels were less likely to report hearing remarks using "gay" in a derogatory manner. Above and beyond personal, locational, and community-level variables, the set of school district variables did not account for a significant amount of variance in this type of remark.

With regard to other homophobic remarks, such as "faggot" or "dyke," the only significant personal characteristic was age, such that older LGBT youth were less likely to hear these remarks than younger youth. The set of regional variables accounted for a significant amount of variance in homophobic remarks. The dummy variable "West" was significant and "Midwest" was marginally significant in the final equation—youth in these regions were less likely to report homophobic remarks than youth in the Northeast. Locale also accounted for a significant amount of variance in remarks—youth in urban areas were significantly less likely to report hearing homophobic remarks such as "fag" or "dyke" than youth in rural areas.

The set of community-variables also accounted for a significant amount of variance in other homophobic remarks. Among them, youth in communities with more college-educated adults and youth in higher poverty communities were less likely to hear these types of homophobic remarks. In contrast to hearing remarks using "gay" in a derogatory manner, the set of school district characteristics accounted for a small but significant amount of variance in other homophobic remarks. Student-to-teacher ratio was a significant predictor: youth in schools with a higher ratio (more students to teachers) were more likely to hear these types of homophobic remarks.

Experiences of Victimization in School

Results of the regressions for the two victimization variables are shown in Table 4. With regard to victimization based on sexual orientation, gender was a significant predictor—female youth were less likely and transgender youth were more likely to report such victimization than male youth. Race/ethnicity was also a significant predictor, with African American/Black youth being less likely to experience victimization based on sexual orientation than White youth. Age was the strongest predictor among the personal characteristics, with older youth being less likely to experience victimization.



Table 3 Ordinary least squares regression of homophobic language on demographic variables, community and school district characteristics

	"Gay" used in derogat	ory manner		Other homophobic remarks		
	Adj. ΔR^2	β	SE_{β}	Adj. ΔR^2	β	SE
Step 1	.010***			.022***		
	F(9, 5,410) = 7.03			F(9, 5,410) = 14.71		
Gender ^a						
Female		.01	.02		01	.01
Transgender		03†	.01		.02	.01
Race/ethnicity ^b						
African American/Black		04**	.01		02	.01
Hispanic/Latino/a		01	.01		.01	.01
Asian/Pacific Islander		05***	.01		02	.01
Native American		.01	.01		01	.01
Other race/ethnicity		.00	.01		.01	.01
Age		02	.01		09***	.01
Public		.06***	.01		.11***	.01
Step 2	.001*			.004***		
	F(3, 5,407) = 3.08			F(3, 5,407) = 8.67		
Region ^c						
South		01	.02		01	.02
Midwest		.00	.02		03†	.02
West		04	.03		09***	.03
Step 3	.003***			.008***		
	F(2, 5,405) = 10.45			F(2, 5,405) = 22.49		
Locale ^d						
Suburban		.00	.02		01	.02
Urban		03	.02		05**	.02
Step 4	.005***			.009***		
	F(2, 5,403) = 15.47			F(2, 5,403) = 26.68		
College educated adults		10***	.02		12***	.02
District-level poverty		07***	.02		05**	.02
Step 5	.001			.001†		
	F(3, 5,400) = .94			F(3, 5,400) = 2.38		
District size		.01	.02		02	.02
Student-to-teacher ratio		.02	.02		.04*	.02
Student-to-student support personnel ratio		.02	.01		02	.01
3 D 0						

^a Reference group: male; ^b Reference group: white; ^c Reference group: northeast; ^d Reference group: rural

The set of dummy-coded regional variables accounted for a small but significant amount of variance in victimization. The beta-weights for the "South" and "West" variables were initially significant: youth in Southern states were more likely and those in Western states were less likely to report victimization based on sexual orientation than youth in Northeastern states. However, these regional variables were no longer significant when the community-level variables were later introduced into the equation. The set of locale variables was also significantly related to victimization based on sexual

orientation—youth in urban areas were significantly less likely and youth in suburban areas marginally less likely to experience this type of victimization than youth in rural areas.

The set of community-level variables also accounted for a significant amount of variance in victimization based on sexual orientation, and the beta weights for both variables were significant. Percentage of college-educated adults was negatively related and district-level poverty was positively related to victimization based on sexual orientation. In the final step of the equation, the contribution of the school



 $[\]dagger p < .10, *p < .05, **p < .01, ***p < .001$

Table 4 Ordinary least squares regression of anti-LGBT victimization on demographic variables, community and school district characteristics

	Victimization related to sexual orientation			Victimization related to gender expression			
	Adj. ΔR^2	β	SE_{β}	Adj. ΔR^2	β	SE_{β}	
Step 1	.050***			.046***			
	F(9, 5,410) = 32.50			F(9, 5,410) = 29.01			
Gender ^a							
Female		10***	.01		09***	.01	
Transgender		.05***	.01		.13***	.01	
Race/ethnicity ^b							
African American/Black		04**	.01		02	.01	
Hispanic/Latino/a		.02	.01		.02†	.01	
Asian/Pacific Islander		02	.01		01	.01	
Native American		.02	.01		.01	.01	
Other race/ethnicity		.00	.01		.01	.01	
Age		17***	.01		11***	.01	
Public		.05***	.01		.03*	.01	
Step 2	.004***			.003**			
	F(3, 5,407) = 9.40			F(3, 5,407) = 5.12			
Region ^c							
South		.03	.02		.04†	.02	
Midwest		.01	.02		.03†	.02	
West		04	.03		.00	.03	
Step 3	.003***			.002***			
	F(2, 5,405) = 10.91			F(2, 5,405) = 6.89			
Locale ^d							
Suburban		03†	.02		03†	.02	
Urban		05**	.02		05**	.02	
Step 4	.005***			.003**			
	F(2, 5,403) = 15.87			F(2, 5,403) = 8.08			
College educated adults		05**	.02		03	.02	
District-level poverty		.04*	.02		.04*	.02	
Step 5	.000			.000			
	F(3, 5,400) = .48			F(3, 5,400) = .20			
District size		02	.02		01	.02	
Student-to-teacher ratio		.00	.02		01	.02	
Student-to-student support personnel ratio		01	.01		.00	.01	

^a Reference group: male; ^b Reference group: white; ^c Reference group: northeast; ^d Reference group: rural $\dagger p < .10, *p < .05, **p < .01, ***p < .001$

district variables was not significant toward victimization based on sexual orientation.

With regard to victimization based on gender expression, gender and age had similar effects as they had with victimization based on sexual orientation: female youth were less likely and transgender youth were more likely to report being victimized because of their gender expression than male youth, and older youth were less likely to be victimized for this reason than younger youth. The regional variables had a significant contribution to the variance in the victimization variable. When first entered, the dummy-coded "South" and "Midwest" variables were significantly

and positively related to victimization based on gender expression such that youth in Southern and Midwestern states were more likely to report victimization than those in Northeastern states ($\beta=.05,\ p=.00,\$ and $\beta=.04,\ p=.03,\$ respectively). However, both became only marginally significant when the community-level variables were introduced. As with victimization based on sexual orientation, the set of locale variables accounted for a significant amount of variance—youth in urban areas were significantly less likely and youth in suburban areas were marginally less likely to experience victimization based on gender expression than youth in rural areas. The set of



community-level variables accounted for a significant amount of variance in victimization based on gender expression. However, only the poverty variable was significantly related to victimization, such that higher poverty was associated with increased victimization. In contrast to our findings regarding victimization based on sexual orientation, the percentage of college-educated adults was not significantly related to victimization based on gender expression. In the final step of the equation, the contribution of the school district variables was not significant.

Discussion

The current study expands upon the existing literature on school climate for LGBT youth by examining how the school experiences for this population may differ by the contexts of their schools and communities. Findings indicate that school experiences of LGBT youth are, in fact, related to individual demographic, locational, community-level, and to a lesser extent, school district level characteristics, highlighting the importance of considering the multiple contexts that LGBT youth inhabit in order to better understand their school experiences.

Demographic Characteristics

Consistent with findings from prior research, data from this study indicate that some LGBT youth may be more likely to face a hostile school climate than others. As we anticipated, demographic characteristics accounted for a significant portion of the variance in LGBT youth's exposure to homophobic language and victimization based on sexual orientation and gender expression. Race/ethnicity, age, and gender were all significantly related to various indicators of school climate, even when locational, community-level, and school district-level characteristics were accounted for.

Whereas, there were significant differences related to race/ethnicity, there was no consistent pattern in the differences. We found racial/ethnic group differences regarding victimization because of sexual orientation with African American/Black students reporting a lower incidence, which corresponds to some findings about racial/ ethnic differences in the frequency of bullying and harassment in the general population of US youth. Nansel et al. (2001), for example, found that African American/ Black students reported slightly lower rates of bullying than White or Latino/a youth. Yet, we found no significant group differences regarding victimization because of gender expression. Although there were significant racial/ethnic group differences in the frequency of hearing remarks using "gay" in a derogatory way, there were no such differences in the frequency of hearing homophobic epithets such as "fag" or "dyke." Thus, the two types of remarks appear to operate differently across cultural contexts. These findings highlight the importance of understanding cultural and community context when addressing issues of school climate for LGBT youth. "One size fits all" interventions may not be appropriate, particularly when attempting to prevent biased language in schools. For example, focusing efforts on educating members of a school community to understand that expressions like "that's so gay" are indeed hurtful may be more critical in predominantly White communities. Furthermore, it may be important for future research and interventions regarding school climate for LGBT students to explore other expressions not examined in this study that are not intended to be hurtful to LGBT youth, but nonetheless may contribute to a hostile school climate (e.g., "no homo").

With regard to age, we found that older youth were less likely to hear homophobic epithets like "faggot" or "dyke." Youth's levels of acceptance of LGBT people may increase as they mature (Horn and Nucci 2003) and may be reflected in a decreased use of overtly homophobic epithets. However, hearing "gay" used to signify that something or someone is undesirable remained pervasive across ages, perhaps because this type of remark may not necessarily be motivated by intolerance or overt homophobia, in contrast to remarks like "faggot" and "dyke." Youth may be unaware that using the expression "that's so gay" could be hurtful or biased, and thus, their use of this type of language may be unrelated to their attitudes towards LGBT people. Regardless of their intent, youth who use such expressions are contributing to a more hostile school climate for LGBT students-Kosciw and Diaz (2006) found that two-thirds of LGBT students were bothered or distressed by this type of language.

Older LGBT youth in this study were also less likely to be victimized in school because of their sexual orientation or gender expression. Again, these findings are consistent with prior research on age-related differences in peer victimization in the general youth population (Nansel et al. 2001; Smyser and Reis 2002; Unnever and Cornell 2004). This finding is also consistent with research on adolescents' attitudes toward gay and lesbian people and tolerance of harassment based on sexual orientation and gender expression (Horn and Nucci 2003).

With regard to gender differences, male students were more likely than female students to experience victimization based on sexual orientation and gender expression, which is consistent with findings from past research on the victimization of LGB youth (e.g., D'Augelli et al. 2002; Kosciw and Diaz 2006) and homophobic harassment of the general population of students (Poteat and Espelage 2007). Also consistent with findings from previous research (Kosciw and Diaz 2006), transgender youth were more



likely than male youth to be victimized in school because of both their sexual orientation and their gender expression.

In order to better understand the various ways different populations of LGBT youth experience victimization, future research should further examine potential demographic differences in LGBT youth's experiences. Additionally, research on peer victimization, bullying, and harassment among the general population of youth should collect information about youth's sexual orientation and provide the opportunity for transgender youth to identify as such.

Community-Level and Locational Characteristics

Schools exist within the context of a larger community, and the overall climate of a school is therefore influenced by and potentially reflects the attitudes, beliefs, and overall climate of this larger community. Our findings of differences in LGBT youth's experiences by community-level socioeconomic and locational characteristics are consistent with research on larger community attitudes and beliefs regarding LGBT people.

Community poverty levels contributed to a significant amount of the variance in LGBT youth's experiences in school, with youth in higher poverty communities reporting more victimization in school because of sexual orientation and gender expression than those in more affluent communities. Differential access to resources that may help to create safer schools for LGBT students may, in part, explain these differences. For example, higher poverty schools may have fewer resources available than more affluent schools to implement programs that may help to reduce victimization targeting LGBT youth (e.g., training programs for staff about addressing homophobic harassment). It would be important for future research to examine how school-level characteristics (e.g., general educational resources, staff development opportunities) may affect indicators of school climate for students in general and especially for marginalized groups such as LGBT students.

Although LGBT youth in communities with higher levels of poverty were more likely to be victimized in school, they were less likely to hear homophobic remarks—both homophobic epithets and remarks using "gay" in a derogatory manner. Both the presence of homophobic language and personal experiences of victimization are indicators of school climate for LGBT students, yet the ways in which they are related to sociocultural factors, such as poverty, may differ. Further research is needed to understand the shared and unique contributions of exposure to homophobic language and personal experiences of harassment and assault on LGBT youth's experiences at school.

We also found that LGBT youth in communities with a higher proportion of college graduates experienced less hostile school climates, which is consistent with existing research showing a positive relationship between the proportion of college-educated individuals in a community and positive attitudes towards LGBT people (Moore and Ovadia 2006; Ohlander et al. 2005). Attending a college or university may provide an opportunity to interact and develop relationships with LGBT people, thereby decreasing prejudicial attitudes (Lambert et al. 2006). It may also develop one's cognitive reasoning and critical thinking, resulting in less reliance on prior, potentially prejudicial personal or cultural beliefs, (Ohlander et al. 2005) and may provide exposure to new ideas, particularly ideas favorable to civil rights (Moore and Ovadia 2006). A community's higher level of tolerance and acceptance of LGBT people then may be reflected in the climate of schools in that community, perhaps resulting in less hostile school environments for LGBT youth.

Schools may also reflect the norms and attitudes of the particular regions in which they are located. Our finding that LGBT youth in the South and Midwest were marginally more likely to experience victimization in school related to their gender expression than those in the Northeast may be explained, in part, by the regional differences in attitudes toward LGB people and beliefs about traditional gender roles. Individuals residing in the Southern and Midwestern regions of the US report less tolerant attitudes toward homosexuality and LGB people than those in other regions (Egan and Sherrill 2005; Herek 2002; Lewis and Taylor 2001; Sullivan 2003), and individuals in the South may also hold more traditional attitudes and beliefs about appropriate gender roles and norms than individuals residing in other regions of the country (Powers et al. 2003; Suitor and Carter 1999).

Interestingly, after accounting for community-level socioeconomic factors, we did not find significant regional differences in LGBT youth's report of victimization related to sexual orientation. Regional differences in tolerance and acceptance levels may, in large part, be related to other community-level factors, such as educational attainment and income. For example, in their examination of national data from the General Social Survey and US Census, Moore and Ovadia (2006) found that there were no significant effects by region on the levels of tolerance toward "non-normative groups," including gays and lesbians, when the proportions of college-educated adults and Evangelical Christians were taken into account.

Schools in urban communities are often identified as being the most unsafe (Dinkes et al. 2007; Warner et al. 1999). Although we found a high incidence of victimization of LGBT youth irrespective of region or locale, we actually identified that for LGBT youth schools in rural communities were the most unsafe. This finding on a national scale echoes state-specific findings from



Massachusetts (Goodenow et al. 2006) that schools often labeled as the most "dangerous" (i.e., large urban schools) may actually provide somewhat safer environments for LGBT youth. Goodenow et al. suggest that more diverse, urban schools may offer a wide array of social "niches" for students, which may provide students more opportunities for social belonging. Thus, although schools in rural areas may face less of a problem with bullying and harassment in general, they may be the least safe schools for the LGBT youth population. When making policy and funding decisions regarding anti-bullying/harassment efforts, it would be important to assure that the needs of rural schools are taken into account.

Our findings about rural youth are also consistent with previous research about attitudes and levels of acceptance of LGBT people. Literature about the experiences of LGBT people in rural communities highlights specific challenges they face, particularly those residing in more remote rural communities that are not highly connected to a nearby metropolitan area, including higher levels of intolerance and stigmatization than LGBT people residing in non-rural communities (Galliher et al. 2004; Herek 2002; Kirkey and Forsyth 2001; Woronoff et al. 2006). Herek, for example, found that individuals residing in rural communities tend to have more negative attitudes and lower levels of tolerance toward LGB people when compared to individuals residing in urban communities. These more negative attitudes toward LGB people have been attributed to a general lack of diversity in many rural communities and higher concentrations of individuals with "conservative" values regarding sexuality and gender roles, as well as religious beliefs that condemn and stigmatize homosexuality and gender non-conformity (Herek 2002; Preston et al. 2007; Snively 2004). All of these factors may contribute to more "concentrated homophobia" in rural communities than in non-rural communities (Snively 2004, p. 102). The level of intolerance and stigmatization of LGBT people in the larger community are indicators, perhaps, of levels of intolerance and stigmatization of LGBT youth in schools—the hostile climate of schools within rural communities may be a reflection of a hostile climate in the larger community. In-school resources for LGBT youth, such as student clubs that provide support for these youth, may be useful in ameliorating some of the negative effects of the "concentrated homophobia" youth in such school communities may experience (Kosciw and Diaz 2006).

School District-Level Characteristics

Once demographic, locational, and community-level socioeconomic variables were taken into account, the set of school district-level variables contributed little to the variation in the school experiences of LGBT youth. There was

a small but significant relationship between student-toteacher ratio and frequency of homophobic remarks—those from school districts with a lower student-to-teacher ratio (fewer students per teacher) were slightly less likely to hear homophobic remarks such as "dyke" or "faggot" in school. A lower student-to-teacher ratio may allow for teachers to intervene more frequently when witnessing biased language and behavior, perhaps sending a message that such behavior is not tolerated. Interestingly, although a decrease in the student-to-teacher ratio was related to a decrease in homophobic remarks, it was not related to the frequency of remarks using "gay" in a derogatory manner, such as "that's so gay." Educators may be less likely to intervene in these types of remarks because they, like many students, perceive this type of language as rather innocuous, and thus not concerning enough to warrant intervention, as would more blatant homophobic slurs such as "faggot" or "dyke." Alternatively, teachers may be overwhelmed with the sheer pervasiveness of expressions using "gay" in a negative manner and thus feel unable to effectively address this language on a regular basis. Further research would help in understanding the possible varying perceptions of educators regarding different types of homophobic remarks, as well as the circumstances under which educators do or do not intervene when hearing them. It would also be important for future research to examine how intervention or lack of intervention on the part of educators affects school climate for LGBT youth.

It is worth noting that the ratio of student-to-student support personnel was not related to any of the indicators of school climate. It is not unexpected that the ratio of teachers would matter more than the ratio of student support staff, given that students spend the majority of the school day with teachers. Thus, teachers may have more of an opportunity to intervene when hearing homophobic remarks and to send a message that anti-LGBT language and behaviors are not acceptable in school. School counselors, social workers, and other support staff, on the other hand, may play a greater role assisting youth in dealing with bullying and harassment, perhaps helping to assuage the negative effects of a hostile school climate (see Fontaine 1998). Thus, with a lower ratio of students to student support personnel, it is possible that we would be likelier to see a lessened impact of homophobic events on a student's well-being than we would see a decrease in the events themselves. Future research should examine how student support staff may help LGBT youth to cope with difficult school experiences, thereby mitigating the negative effects of bullying and harassment on youth's well-being and educational outcomes.

Neither the student-to-teacher ratio nor student-to-student support personnel ratio was related to victimization in school. Educators may not often have the opportunity to prevent or intervene in harassment and assault, as these



incidents are more likely to occur when they are not present and in areas such as hallways, lunchrooms, bathrooms, and locker rooms (Bochenek and Brown 2001; Kosciw and Cullen 2002). Thus, a higher number of teachers may not necessarily increase the likelihood that they are present when these behaviors occur. Perhaps an increase in other types of school personnel who may be more likely to be present in these areas, such as aides or security staff, would have an effect on the prevalence of harassment and assault; future research should examine the role of these types of school personnel in creating a less hostile school climate. The lack of a relationship between students' victimization and student-to-staff ratios may also reflect a lack of awareness of the problem among school staff. An examination of data from a national study of secondary school teachers found that teachers who recognized that LGBT youth often feel unsafe at school were more likely to take action when they heard homophobic language (Greytak et al. 2007), suggesting that efforts to raise awareness about LGBT youth's school experiences may result in more frequent intervention and, in turn, a more positive school climate. Future research should continue to explore the factors that facilitate educators' supportiveness towards LGBT youth as well as the nature of their interventions with anti-LGBT language and behaviors.

Limitations

This study expands upon the current research by examining the various contextual factors related to school climate for LGBT youth. Although it broadens the current research by using a national sample and including transgender youth in addition to lesbian, gay, and bisexual youth, there are limits to the generalizability of the findings. The survey was specifically intended for youth who identify as lesbian, gay, bisexual, or transgender. Thus, we cannot make determinations from our data about the experiences of youth who might be engaging in same-sex sexual activity or experiencing same-sex attractions but who do not identify themselves as lesbian, gay, or bisexual or youth whose gender identity or gender expression is outside of traditional cultural norms but do not identify as transgender. The data may not reflect the experiences of these youth who may also be more isolated and without the same access to resources as the LGBTidentified youth in the survey.

Furthermore, although the data collection methods resulted in a fairly representative sample of LGBT youth (i.e., representation from all 50 states and the District of Columbia), it is important to note that our sample was representative only of youth who identified as LGBT and had some connection to the LGBT community (either through their local youth organization or through the Internet), or had a MySpace page. Additionally, MySpace

advertisements targeted only youth 13–18 year-olds who identified on their MySpace profile that they were lesbian, gay, or bisexual. LGB youth who were not comfortable identifying their sexual orientation in this manner would not have received the advertisement about the survey through MySpace, nor would those transgender youth who did not identify as LGB.

Recommendations and Implications

The current study is one of the few that examines the differing experiences of LGBT youth in school and expands our understanding of school climate for these youth by examining the various contributions of individual demographic, locational, community-level, and school district-level characteristics, and by drawing attention to the fact that LGBT youth's school experiences are not uniform. We recognize, however, that there are many other characteristics affecting school climate for LGBT youth that were not investigated in this study. For example, we did not have information on specific schools; thus, we could not examine potential differences based on schoollevel characteristics. As schools in a district may vary in their specific characteristics, it would be important to examine differences in LGBT youth's experiences based on the characteristics of their individual schools, in addition to district-level characteristics. We suggest that school districts include questions about students' sexual orientation and gender identity as part of regularly administered district-wide surveys on bullying or school climate, such as the youth risk behavior survey or the Olweus Bullying Questionnaire. Districts could then examine potential variations between and within their individual schools, providing information on which school characteristics are related to school climate for LGBT youth.

Future research should examine school experiences within various subgroups of LGBT youth (e.g., bisexual-identified youth, Latino/a youth, rural youth) and their potentially differing experiences and perspectives. In this current study, we looked at differences across gender and racial/ethnic groups, but did not examine differences within each subgroup (e.g., locational differences within male-identified youth). Within these categories exist a multiplicity of experiences and future research should consider the diverse experiences of LGBT youth. Further research is also needed that examines the spectrum of identities, including, but not limited to, sexual orientation and gender identity, and their varying contributions toward school climate experiences for LGBT youth.

As research on the school experiences of LGBT youth continues to grow, it needs to expand beyond documenting experiences of victimization. Although this is critical research, it alone is insufficient for furthering our



understanding of LGBT youth's educational experiences and how to provide an environment for all students to learn. It is important to connect information about youth's experiences in school with their emotional and physical well-being, as well as to gather information about LGBT youth's academic achievement, involvement in school activities, graduation rates, and future educational aspirations. Further research is also needed on efforts to improve school climate for LGBT students, such as intervention by school personnel, students' willingness to report incidents of harassment and assault to school authorities, and the availability and utility of resources designed to improve school climate (i.e., Gay-Straight Alliances, comprehensive "safe school" policies, and educator trainings).

Although LGBT youth as a whole face hostile school environments, findings from this study demonstrate that LGBT youth are not a monolithic group—their experiences differ depending upon their individual characteristics, their location, and the characteristics of their community. Thus, efforts to prevent victimization and improve school climate should be tailored to reflect these different experiences. Although efforts to improve school climate may often focus on schools and school districts, once individual, locational, and community-level factors are taken into account, the district-level characteristics examined in this study (district size, student-to-teacher, and student-to-student support personnel ratios) may have less of an effect on school climate for LGBT youth. In order to ensure safe schools for LGBT youth, researchers, educators, and policymakers need to address factors beyond the school walls and consider how the broader environment contributes to school safety for diverse populations of LGBT youth.

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Author Biographies

- **Joseph G. Kosciw** is the Director of Research at GLSEN, the Gay, Lesbian and Straight Education Network. He has a Ph.D. in Community Psychology from New York University, a B.A. in Psychology and an M.S.Ed. in School Counseling from the University of Pennsylvania. He trained as a family therapist and has worked as a school counselor and psychoeducational consultant in elementary and secondary schools. His research has focused on evaluation and program development of community-based initiatives for LGBT adolescents and adults regarding health and well-being, community effects on family processes, and the family-school connection. GLSEN Research focuses on understanding the school experiences of all students, specifically as they are related to issues regarding sexual orientation and gender identity/expression, the school experiences of LGBT parents, perceptions of educators and school administrators regarding school climate, and the utility of school- and communitybased efforts regarding bullying and harassment.
- Emily A. Greytak is a Senior Research Associate at GLSEN. She has an M.S.Ed. in Education Policy from the University of Pennsylvania and a B.A. in Psychology from Haverford College. She is currently a doctoral candidate in Education Policy, Management, and Evaluation at the University of Pennsylvania. Other areas of inquiry include evaluation of training programs and the readiness of school personnel to foster safe school environments.
- Elizabeth M. Diaz is a Research Associate at GLSEN. She has a B.A. in Sociology and Chicano Studies from the University of Minnesota, and is working toward a Master's degree in Sociology from The George Washington University. Her research interests include the educational experiences of LGBTQ youth of color and the effects of abstinence-only sex education on school climate.

