Middle and High School Students Who Take Care of Siblings, Parents, and Grandparents: Associations With School Engagement, Belonging, and Well-Being

Emma Armstrong-Carter ORCID

Stanford University
University of California, Berkeley

Steve Osborn

Rhode Island Department of Education

Olivia Smith

Rhode Island Department of Education

Connie Siskowski, RN, Ph.D

The American Association of Caregiving Youth

Elizabeth A. Olson, Ph.D

University of North Carolina at Chapel Hill

This partnership-based study identified how many middle and high school students take care of parents, siblings, and grand-parents at home, via student surveys across Rhode Island public schools (N = 48,508; 46% White non-Latinx; 21% Latinx; 47% girls). Further, we investigated how students' caregiving for family related to their school engagement, belonging, and emotional well-being. A sizable proportion of students reported caring for family for part (29%) or most of the day (7%). Girls and Black, Asian, Latinx, Native, and multiracial youth were more likely to care for family, compared to boys and White non-Latinx youth. Caregiving students from all demographics were more likely to experience intense sadness compared to noncaregivers, revealing a need to support caregiving youth in schools. In addition, caregiving girls reported lower levels of school engagement and school belonging. However, caregiving for part of the day was related to greater belonging among Black and Native youth.

Keywords: *caregiving students, caregiving youth, emotional well-being, school belonging, school engagement, school surveys*

I̴ɴ the United States, more than 5.4 million children and adolescents take care of siblings, parents, and grandparents on an ongoing basis (AARP & National Alliance for Caregiving, 2020). Caregiving as a child is a salient developmental experience that may affect emotional well-being and feelings of engagement and belonging in school (Armstrong-Carter et al., 2021; Olson & Siskowski, 2018; Siskowski, 2006). However, schools in the United States do not typically collect information about students' experiences of caregiving for the family, and little research has assessed caregiving students' experiences of school engagement, belonging, and well-being. It is important to identify caregiving students in school-based surveys and understand how students' provision of family caregiving relates to their school engagement, belonging, and well-being. Such knowledge can enable educators, policymakers, and researchers to support this "hidden" population of students (Cohen et al., 2012) and reduce inequalities between youth (Armstrong-Carter et al., 2021).

This partnership-based study created one of the first school-based surveys to date to collect information about caregiving students across the Rhode Island Public School System. In 2021, the authors established a research-practice partnership with the goal of identifying and supporting caregiving youth in Rhode Island and providing a model for other states to follow. Specifically, the ongoing partnership includes the Rhode Island Department of Education, researchers in education and in the ethics of care, and the founder of the American Association for Caregiving Youth, a nonprofit organization. We conceptualized caregiving as children's self-reports of taking care of anyone in the family, such as a sibling, parent, or grandparent. We differentiated between caregiving for part of the day versus most of the day to capture variability in caregiving intensity and duration. Our partnership and research study (a) demonstrate the feasibility of identifying caregiving students in U.S. schools; (b) reveal that a significant proportion of middle and high school students take care of family members on a daily basis; and (c) illuminate individual differences in how students' experiences of family caregiving are linked to school engagement, belonging, and emotional well-being. As such, this study calls attention to an urgent need for school administrators, policymakers, educators, and researchers to identify caregiving students in middle and high schools and investigate those students' experiences.

Students Who Take Care of Siblings, Parents, and Grandparents

As middle and high school students do their best to engage and learn in the classroom, their experiences at home with family affect their ability to engage positively. In particular, many students enter the classroom while concurrently acting as family caregivers at home (AARP & National Alliance for Caregiving, 2020). Children's provision of caregiving for family ranges from babysitting for a typically developing younger sibling, to caring for a sibling with developmental challenges or chronic illness, to caring for an adult relative who is experiencing illness or age-related decline (Armstrong-Carter et al., 2019). Depending on the needs of the care recipient, babysitting and caregiving may include supervising the loved one, monitoring instrumental and emotional needs, assisting with daily living activities (e.g., bathing, feeding, or administering medication), and organizing necessary tasks, such as medical appointments (Kavanaugh et al., 2016). Babysitting and caregiving can range from helping for part of the day to providing more time-consuming and substantial support for most of the day (Armstrong-Carter et al., 2019).

It has been estimated that 5.4 million children below age 18 are involved in daily caregiving for adults in the United States (AARP & National Alliance for Caregiving, 2020). However, this number focuses on relatives who are chronically ill or elderly and does not include children who babysit or take care of a sibling (AARP & National Alliance for Caregiving, 2020). As such, the number of students involved in daily caregiving for any family member—including parents, grandparents, and siblings—is likely far greater. Further, the number of children who care for a family member is rapidly increasing due to an aging population; the rising prevalence of conditions, such as autism, that may affect siblings; and growing reliance on younger family members to provide informal care for relatives (AARP & National Alliance for Caregiving, 2020).

Caregiving May Be Related to School Engagement, Belonging, and Well-Being

Experts agree that without sufficient support at school, caregiving students may face heightened risk for isolation, feelings of sadness, and interferences with school engagement and success (Olson & Siskowski, 2018). Students who provide caregiving for family serve a dual role of caregiver and student (Siskowski, 2006). As such, they often experience multiple conflicting responsibilities to care for their loved one while simultaneously maintaining their own emotional well-being and school endeavors (Siskowski, 2006). Challenges are more common or severe when students deliver high levels of ongoing care for most of the day (for instance, if they care for a grandparent who is chronically ill), but even moderate amounts of babysitting could affect students' experiences at school (Armstrong-Carter et al., 2019). For instance, caregiving students may feel isolated or a lower sense of belonging in school because they are a largely "hidden" population and are not commonly recognized in schools (Cohen et al., 2012; Siskowski, 2006). Further, caregiving as a child or adolescent may be emotionally taxing because it often involves personal responsibility for another person's physical well-being and conflicting demands (Kavanaugh et al., 2016). These stresses associated with caregiving may interfere with students' ability to feel engagement and belonging in school and may contribute to feelings of isolation or sadness (Siskowski, 2006).

Several reasons underscore the importance of understanding how students' experiences providing caregiving relate to their subjective experiences, including school engagement, belonging, and emotional well-being. *School engagement* refers to students' enjoyment, liking, and motivation toward school (Lövdén et al., 2020). *School belonging* refers to students' feelings that they are connected, respected, and an integral part of the school community (Slaten et al., 2016). *Emotional well-being* reflects youths' relative experiences of happiness and joy, compared to sadness or hopelessness. First, these subjective experiences are salient aspects of children's daily lives that reflect their broader educational and psychosocial adjustment. Second, students' feelings of school engagement, belonging, and

emotional well-being have long-lasting effects on educational attainment, life satisfaction, and employment opportunities across the life course (Lövdén et al., 2020; Slaten et al., 2016). Third, caring for family may be a previously unrecognized daily process that relates to ongoing disparities in children's educational experiences. For instance, if caregiving youth feel disconnected or isolated from school, knowing such information is crucial to supporting them and helping all students achieve educational success. Accordingly, research investigating how caregiving relates to students' subjective experiences at school may reveal critical insights that can inform interventions to support caregiving youth and reduce inequalities.

Despite this theoretical motivation to identify caregiving students and understand their school-related experiences, relatively little empirical research has addressed this topic directly. Several studies have focused on how contributing to the family via moderate levels of instrumental household chores and emotional support is related to academic achievement (Armstrong-Carter & Telzer, 2021; Fuligni, 2001; Telzer & Fuligni, 2009b). In addition, adolescents who helped the family via instrumental household chores have reported stronger feelings of academic motivation and obligation (Fuligni, 2001; Hardway & Fuligni, 2006). However, these studies focused on broad measures of household tasks rather than on youths' experiences of caregiving. In one study more closely focused on caregiving, middle and high school students who cared for aging or ill family members reported missing school and not being able to consistently study and complete homework (Siskowski, 2006). Caregiving middle and high school students also reported greater sadness, hopelessness, and suicidality (Armstrong-Carter et al., 2022). However, these studies did not include caregiving for typically developing siblings. They also did not measure students' broader, subjective experiences of school, such as emotional engagement and sense of belonging. Research that investigates how youths' provision of caregiving for siblings, parents, and grandparents relates to their subjective experiences in school settings may illuminate previously undetected disparities between caregiving youth and their peers.

Importance of Identifying Caregiving Students in Schools

The paucity of research linking students' experiences of caregiving to their educational and emotional outcomes partially stems from a lack of systematic data collection on caregiving students in the United States (Armstrong-Carter et al., 2021). Although other countries (e.g., the U.K., Canada, and Australia) routinely identify caregiving students in schools (Leu & Becker, 2017), the United States does not yet formally acknowledge or support caregiving youth within educational or social services (Armstrong-Carter et al., 2021). For instance, the United States does not

typically collect information about caregiving students in the Youth Health Risk and Behavior Surveys that are mandated by the Centers for Disease Control and Prevention and tailored to each state (Kann et al., 2000). A large part of the problem is that there currently is no standardized toolbox (e.g., survey item or items) that educational administrators and practitioners can readily use to identify caregiving youth in schools (Armstrong-Carter et al., 2021). The United States needs a piloted example of how to identify caregiving students and assess their needs in school (Armstrong-Carter et al., 2021) to provide a model for future use in other states and school districts. Identification of caregiving students is a critical first step to supporting them in schools and, in turn, will facilitate the recognition and support of caregiving students across the country.

To date, only one U.S. state has systematically collected information on caregiving students. In 2019, Florida included an item in the Youth Health Risk and Behavior Survey that suggested that as many as 24% of middle school students and 16% of high school students provide at least some care to the family on a regular basis (Armstrong-Carter et al., 2021). Although groundbreaking, this survey had two key limitations. First, it focused only on youth who cared for someone who was chronically ill, elderly, or disabled. The survey did not inquire about students who took care of younger siblings without these conditions. Second, the dichotomous item did not differentiate between the amount of time that students spent caregiving, such as only part of the day versus most of the day. More school-based surveys are needed to identify students who care for parents, siblings, and grandparents and the amount of time that young students spend caregiving.

Differences in Caregiving by Race, Ethnicity, Gender, and Age

Youth from different demographic groups (e.g., racial, ethnic, gender, and age groups) may differ in their levels of caregiving due to differential socialization experiences and inequalities in access to resources. For instance, compared to youth from White non-Latinx backgrounds, youth from Asian, Black, and Latinx backgrounds may take care of family relatively more frequently, due to a positive cultural emphasis on community ties and the importance of close interpersonal connections and support networks. In addition, youth from Black, Latinx, and Native American households on average live in households with lower annual incomes due to historical and ongoing racialized socioeconomic barriers (Census Bureau, 2020). Due to these inequalities, Black, Latinx, and Native American families may have less access to paid babysitters or caretakers at home, so youth in these families may provide care more frequently to meet household needs. Indeed, the Florida school-based study found that middle and high school students from Latinx and Black backgrounds provided higher levels of caregiving to chronically ill or elderly

parents and grandparents compared to those from White non-Latinx, Asian, or other ethnicities (Armstrong-Carter et al., 2022). However, most other studies that have examined youths' provision of caregiving have relied on small samples (often with qualitative methods) and lacked sufficient statistical power to detect potential differences by race or ethnicity (for a review, see Kavanaugh et al., 2016). Research that measures students' provision of caregiving in large, diverse samples will offer more robust statistical power and larger group cell sizes needed to detect group differences.

In addition, a few studies have revealed gender and age differences in students' experiences of providing caregiving for the family. In the Florida study, boys and younger children provided more caregiving compared to older children and girls, contrasting societal stereotypes of girls and older individuals as caretakers (Armstrong-Carter et al., 2022). In other research, girls and older adolescents more frequently completed household chores compared with boys and younger children (Armstrong-Carter & Telzer, 2021; Telzer & Fuligni, 2009b; Tsai et al., 2013). Girls also provided more emotional support to family compared to boys, although there were no age differences in emotional support (Armstrong-Carter & Telzer, 2021; Tsai et al., 2016). More research in larger samples can clarify any age and gender differences in youths' provision of caregiving.

Caregiving May Divergently Relate to Adjustment Among Different Demographic Groups

Caregiving youth from different demographic groups also likely differ in their school experiences, given different socialization patterns in family and school experiences. That is, the link between caregiving and school engagement, belonging, and well-being may be moderated by demographic characteristics, such as gender, race/ethnicity, and age. Supporting this notion, greater provision of emotional support to the family was linked to higher school engagement in one sample of Black youth (Armstrong-Carter, 2022), but not in another sample of predominantly White non-Latinx, Latinx, and Asian youth (Armstrong-Carter & Telzer, 2021). In another study, time spent helping the family was linked to decreases in academic grades only among youth from Latinx and Asian backgrounds, but not from White non-Latinx backgrounds (Telzer & Fuligni, 2009b). These preliminary findings suggest that the link between caregiving and school-related experiences may differ for different demographic groups. However, few studies have had access to sufficiently large and diverse samples to explicitly test this hypothesis.

The Rhode Island Setting

The state of Rhode Island is an excellent context in which to begin identifying caregiving students via school-based surveys in the United States. Rhode Island is a small northeastern state with a robust, centralized school system that serves students from demographics that approximately reflect the diversity of the U.S. population. Rhode Island has 66 public local education agencies, which include traditional public school districts and charter school districts. The Rhode Island Department of Education serves approximately 77,628 middle and high school students. Statewide, Rhode Island students identify predominately as White-non Latinx (57%) and Latinx (26%), followed by Black (9%), multiracial (4%), and Asian or Pacific Islander (3%). Almost half (47%) of public school students come from low-income families, as indexed via eligibility for the free or reduced-price lunch program (Rhode Island Kids Count, 2019). The majority of low-income students and students who identify as Latinx, Black, Asian, and multiracial are concentrated in the four core cities of Central Falls, Pawtucket, Providence, and Woonsocket (Rhode Island Kids Count, 2019). The statewide diversity that reflects the U.S. population and the cohesive public school system positions Rhode Island as a uniquely useful context to research caregiving students.

Current Study

The goal of this study was to shed new light on a sizable and important subset of middle to high school students in the United States—those who take care of siblings, parents, and grandparents on a daily basis. We examined whether students' caregiving experiences were related to salient educational experiences, which are formative for lifelong well-being and educational success. Specifically, this study tested three research questions: (a) How many middle and high school students provide caregiving to family for part of the day or most of the day on a daily basis? We hypothesized that a significant proportion of students would self-identify as caregivers, although we did not estimate a precise number. (b) Are certain groups of students (i.e., genders, racial/ethnic groups, ages) more likely to provide caregiving for family compared to others? We hypothesized that youth from Black, Asian, Latinx, and Native American groups would be more likely to provide caregiving compared to White non-Latinx youth, due to a positive cultural emphasize on shared, mutual interpersonal and familial supports and ongoing racialized socioeconomic systemic barriers for formal paid caregivers. (c) Do caregiving students differ in their feelings of school engagement, belonging, and emotional well-being compared to their noncaregiving peers, and do the associations between caregiving and school engagement, belonging, and well-being differ for youth from different genders, racial/ethnic groups, and ages? We hypothesized that demographic characteristics would significantly moderate the link between caregiving and these school-related experiences. However, we did not have a

strong hypothesis for the direction of the associations because little research has been done on this topic.

To answer these research questions, we drew on a large, diverse sample of middle and high school students across Rhode Island public schools who provided first-hand experiential reports. Our robust predictive models accounted for several individual characteristics (i.e., age, gender, race/ethnicity) and clustered standard errors by school districts. Accordingly, this study will inform researchers, educators, school administrators, and policymakers in designing new student-centered solutions to support caregiving students who are currently "hidden" and not recognized formally in U.S. educational systems.

Methods

Participants

The sample was 48,508 students in Grades 6 to 12 in the Rhode Island school system who responded to a school-based survey. The students attended public middle and high schools in 52 school local education public agencies (LEAs), henceforth referred to as school districts.[1] Of the 52 districts, 34 districts were traditional public school districts, and 13 were charter school districts; and 24 were classified as urban, 27 as suburban, and 1 as an out-of-district placement. Overall, the participation rate across the state was 62.48%. Specifically, 48,500 students out of 77,628 middle and high school students across the state of Rhode Island participated. Relatively low participation across the state may have been in part due to the impact of the COVID-19 pandemic during this time.

The sample was 47.00% girls, 45.12% boys, and 7.87% who preferred not to report (gender data were missing for those students). Students mostly identified as White non-Latinx (45.78%), followed by Latinx (20.70%), multiracial (10.27%), Black/African American (8.97%), Asian (3.91%), and Native American, Alaskan, Hawaiian, or Pacific Islander (1.37%). Race/ethnicity data were missing for 8.79% of students. Family socioeconomic status data were not available due to the legal constraints of collecting this information in government-funded school-based surveys and the potential for breach of participant anonymity, consistent with prior publications about caregiving youth (Armstrong-Carter et al., 2022). The sample was evenly distributed across the seven grades (Grades 6–12), such that 10.96%–17.13% of students represented each grade. Most students attended school half-time online and half-time in person (37.49%), followed by completely online (27.58%), mostly online (16.05%), mostly in person (12.89%), or completely in person (5.99%).

Procedure

In January 2021, all middle and high school students in Rhode Island were invited to participate in "Survey Works," an annual statewide school-based administrative survey that is administered online to students. The survey is the Rhode Island equivalent of the Youth Health and Risk Behavior survey, which is overseen by the Centers for Disease Control and Prevention and administered (via different forms) in all U.S. states. Students who elected to participate responded to the school-based survey anonymously online while either physically seated in classrooms or virtually engaged in class from home. The full survey took approximately 10–15 minutes to complete. All measures were self-reported via these surveys. The data and findings were not unduly influenced by the mission of the nonprofit group involved in the study (i.e., the American Association of Caregiving Youth) because the data were collected independently by the Rhode Island Department of Education, de-identified, and then processed and analyzed by an independent researcher (EAC).

Measures

Caregiving. Participants were asked, "During the day, are you taking care of anyone in your family, such as siblings, parents, and/or grandparents?" Participants responded "No"; "Yes, for part of the day"; or "Yes, for most of the day." For regressions, we entered two binary variables. One variable indicated whether participants were involved in caregiving for part of the day (1 = Yes, 0 = No). A second variable indicated whether participants were involved in caregiving for most of the day (1 = Yes, 0 = No).

Demographic Characteristics. *Race/Ethnicity* was categorized into six groups: "White non-Latinx," "Latinx," "Biracial or Multiracial," "Black or African American," "Asian," and "Native American, Alaskan, Hawaiian or Pacific Islander." *Gender* was categorized as "Girls," "Boys," and "Prefer not to answer." For regression models, we entered race/ethnicity and gender as dichotomous variables indicating whether the participant identified in that category (1 = Yes, 0 = No). *Year in School* was continuous, ranging from Grades 6–12 and reflecting the participant's year in school.

School Engagement was indexed via 20 items. This measure was part of a survey designed by Panorama Education (2022), an independent organization that provides research-backed, open-source, free survey instruments for educators. Specifically, the organization partners with K–12 schools and districts across the United States to collect and analyze data about students' experiences at school and social-emotional outcomes. For example, the items included "How excited are you about going to your classes?"; "In your classes, how eager are you to participate?"; and "How much do you see yourself as someone who appreciates school?" Participants responded on a 5-point Likert-type scale ranging from "Not at all" to "Very much." The Supplementary Materials display the full list of items. We created a

continuous composite of the 20 items as an average score that ranged from 1–5, with higher values reflecting higher levels of school engagement (alpha = .92). Although Likert scales are not continuous, we averaged these items to be consistent with prior literature, to minimize the number of variables while maximizing variability, and because of the high level of reliability between items (Sullivan & Artino, 2013). We standardized this measure for regression models by centering the mean at 0.

School Belonging was indexed via six items, which were also a part of the survey provided to the Rhode Island Department of Education by Panorama Education (2022). The items were "How much do you feel like you belong at your school?"; "How connected do you feel to the adults at your school?"; "How respected do you feel by peers at your school?"; "How understood do you feel by peers and teachers at your school?"; "How much do you feel that you matter at your school?"; and "How much do you feel that people at school are disrespectful to you?" Participants responded on a 5-point Likert-type scale ranging from "Not at all" to "Very much." Negative items were reverse-coded. We created a continuous composite of the six items as an average score that ranged from 1–5, with higher values reflecting higher feelings of belonging (alpha = .82). We standardized this measure for regression models by centering the mean at 0.

Sadness was indexed via one item that was also provided by Panorama Education (2022). Students were asked, "During the past 12 months, did you ever feel so sad or hopeless almost every day for 2 weeks or more in a row that you stopped doing some usual activities?" Participants responded "yes" or "no." Accordingly, this variable was dichotomous: 0 = indicated that the student had not experienced ongoing sadness in the last year (63.95% of participants), and 1 = indicated that the student had experienced ongoing sadness in the last year (36.05% of participants).

Analysis

As preliminary analyses, we first tested the percentages of students who reported caregiving for either part of the day or most of the day. We tested this in the full sample and then separately for different demographic groups by gender, race/ethnicity, and grade. Chi-squared tests established whether the percentages of caregiving students differed significantly between groups.

For our primary research questions, we tested multiple standardized linear regression models with standard errors clustered by school districts ($N = 52$). Clustering allowed us to account for the nested nature of the data while maximizing statistical power. White non-Latinx youth and boys/youth who preferred to not report gender served as the reference groups.

Model 1 tested the associations between demographics (gender, race/ethnicity, and year in school) and the likelihood of caregiving. Following expert recommendations, we used linear regressions to predict our two binary caregiving outcomes (Gomila, 2021). In linear regressions that predict binary outcomes, coefficients can be interpreted directly as probabilities (Gomila, 2021).

Second, Model 2 tested the associations between caregiving and student adjustment (i.e., school engagement, belonging, likelihood of experiencing ongoing sadness), using clustered standardized linear regression models that controlled for demographic characteristics. Caregiving for part of the day and most of the day were entered as two binary predictors. Again, for the models that predict the likelihood of experiencing ongoing sadness, coefficients can be interpreted directly as probabilities because it is a binary outcome (Gomila, 2021). For models predicting school engagement and belonging, coefficients can be interpreted as effect sizes because the outcomes are continuous, and all variables are standardized.

Third, Model 3 tested whether the associations between caregiving and student adjustment (i.e., school engagement, belonging, sadness) differed between demographic groups. To do so, we used the same standardized linear regression models as above but added interaction terms between each caregiving category (i.e., caregiving for part of the day or caregiving for most of the day) and each demographic characteristic (i.e., gender, each racial/ethnic group, and year in school). This yielded a total of 14 interaction terms that we included as simultaneous predictors in the regression models. We adjusted for multiple tests by dividing the significance threshold ($p < .05$) by three for the three outcomes. Accordingly, we only report significant regression results below $p < .02$. We probed significant interactions by graphing the association between caregiving and adjustment for each group (e.g., Black compared to White non-Latinx youth).

Missing data were very low for all variables (0.17%–1.57%) except race/ethnicity (missing 8.79%). We used Full Information Maximum Likelihood to manage missing data, which maximized our sample size and reduced the bias in our estimates. Specifically, we analyzed the data in Stata Version 17 and used Full Information Maximum Likelihood by employing the "sem" command with the "mlmv" option.

Results

The Prevalence of Caregiving Students

Table 1 displays the prevalence of caregiving students for the full sample and by demographic group. In the full sample, 28.77% of students ($N = 13,734$) cared for family for part of the day, and 7.34% of students ($N = 3,505$) cared for family for most of the day. Girls were significantly more

TABLE 1

Prevalence of Caregiving/Babysitting by Group—Descriptive Statistics and Percentages

	Full sample	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Girls	Boys	Asian	Black	Latinx	Native / Pacific Islander	White non-Latinx	Multiracial
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
No	63.89	59.98^A	61.92^B	63.31^B	65.67^C	66.06^D	66.22^D	66.32^D	63.23^A	65.97^B	53.41^A	51.23^B	49.64^C	52.50^D	74.46^E	57.98^F
Part of the day	28.77	31.97^A	30.62^B	29.43^B	27.32^C	26.65^D	27.01^E	26.31^F	28.47^A	28.15^A	36.68^A	36.44^B	38.39^C	36.00^D	21.72^E	32.81^F
Most of the day	7.34	8.06^A	7.46^B	7.26^B	7.01^B	7.29^B	6.77^B	7.37^B	8.29^A	5.88^B	9.91^A	12.33^B	11.97^C	11.50^D	3.82^E	9.21^F
Observations	47,745	7,436	8,132	8,139	6,947	6,034	5,672	5,222	2,2365	2,1437	1,715	3,935	9,086	600	24114	4,526

Note. An additional 3,726 participants preferred to not report their gender. These students were included in the primary analysis but not included in the mean level values separated by gender due to the ambiguity of this group. In addition, race/ethnicity data were missing for 8.79% of participants. Therefore, the column subgroup totals may not equal the full sample total. *Native* refers to Native American, Alaskan, Hawaiian, or Pacific Islander. Within each category of grade, gender and race/ethnicity, subgroups with different letters as superscripts have mean values that are significantly different from each other as established via T tests at the $p = 0.05$ level; subgroups with the same letters as superscripts are not statistically different from each other.

TABLE 2

Demographic Characteristics Predicting the Likelihood of Caregiving for Part of the Day and Most of the Day

	Caregiving			
	Part of day		Most of day	
	β	SE	β	SE
Asian	0.14**	(0.02)	0.05**	(0.01)
Black	0.13**	(0.01)	0.08**	(0.01)
Latinx	0.15**	(0.01)	0.07**	(0.01)
Native or Pacific Islander	0.13**	(0.02)	0.07**	(0.02)
Multiracial	0.10**	(0.01)	0.05**	(0.01)
Girls	−0.00	(0.00)	0.02**	(0.00)
Year in school	−0.01**	(0.00)	−0.00	(0.00)
Constant	0.31**	(0.01)	0.05**	(0.01)
Observations	48,508		48,508	
Pseudo *R*-squared	.02		.02	

Note. Standard errors are in parentheses. *Native* refers to Native American, Alaskan, Hawaiian, or Pacific Islander.
**$p < 0.01$.

likely to care for family for most of the day compared to boys. Latinx youth were the most likely to care for family for part of the day, followed by Asian, Black, Native American, multiracial, and then White non-Latinx youth. Black youth were the most likely to care for family for most of the day, followed by Latinx, Native American, Asian, multiracial, and then White non-Latinx youth.

Demographic Differences in Caregiving Youth

Table 2 displays how demographic characteristics predicted the likelihood of caregiving for part of the day or most of the day. Youth from Asian, Black, Latinx, Native, or multiracial backgrounds were significantly more likely to provide caregiving for part of the day and for most of the day compared to White non-Latinx youth. Girls were significantly more likely to provide caregiving for most of the day compared to boys. In addition, youth from younger grades (e.g., Grades 6 or 7) were significantly more likely to

provide caregiving for part of the day compared to youth from older grades (e.g., Grades 11 or 12). The magnitudes of these associations were small, as indicated via standardized beta-coefficients that can be interpreted as effect sizes. There were no other significant associations.

Associations Between Caregiving and School Engagement, Belonging, and Sadness

Table 3 displays the direct associations between students' experiences of providing caregiving and their adjustment when controlling for demographic characteristics (Model 1) and how the associations between caregiving and student adjustment varied for demographic groups (Model 2).

School Engagement

As shown in Model 1, caregiving for most of the day was associated with higher levels of school engagement. However, this association was qualified by significant

TABLE 3

Regression Models Showing the Direct Associations Between Caregiving and Student Adjustment While Controlling for Demographic Characteristics (Model 1) and Individual Differences in the Link Between Caregiving and Student Adjustment (Model 2)

	School engagement				Belonging				Sadness			
	Model 1		*Model 2*		*Model 1*		*Model 2*		*Model 1*		*Model 2*	
	β	SE	β	SE	β	SE	β	SE	β	SE	β	SE
Direct associations												
Caregiving part of day	−0.01	(0.01)	0.02	(0.06)	−0.02	(0.01)	−0.00	(0.06)	0.10**	(0.00)	0.15**	(0.02)
Caregiving most of day	0.06**	(0.02)	0.09	(0.12)	0.05	(0.03)	0.20	(0.12)	0.14**	(0.01)	0.22**	(0.04)
Asian	0.07	(0.03)	0.08	(0.03)	−0.04	(0.02)	−0.06	(0.04)	0.00	(0.02)	−0.01	(0.01)
Black	0.03	(0.03)	0.03	(0.03)	−0.03	(0.04)	−0.06	(0.03)	−0.02	(0.01)	0.00	(0.01)
Latinx	0.05	(0.04)	0.04	(0.04)	−0.02	(0.03)	−0.04	(0.03)	0.03**	(0.01)	0.04**	(0.01)
Native or Pacific Islander	−0.05	(0.06)	−0.08	(0.09)	−0.05	(0.04)	−0.18**	(0.05)	0.03	(0.03)	0.04	(0.03)
Multiracial	−0.15**	(0.03)	−0.15**	(0.03)	−0.21**	(0.02)	−0.21**	(0.02)	0.09**	(0.01)	0.08**	(0.01)
Female	0.08**	(0.02)	0.12**	(0.02)	−0.09**	(0.02)	−0.03	(0.02)	0.14**	(0.01)	0.13**	(0.01)
Year in school	−0.08**	(0.01)	−0.08**	(0.01)	−0.03**	(0.01)	−0.03**	(0.01)	0.01**	(0.00)	0.02**	(0.00)
Interactions with caregiving part of day												
Asian			−0.03	(0.06)			0.05	(0.06)			0.03	(0.03)
Black			−0.02	(0.03)			0.07**	(0.03)			−0.04**	(0.01)
Latinx			0.03	(0.04)			0.05	(0.03)			−0.02	(0.01)
Native or Pacific Islander			0.05	(0.11)			0.30**	(0.09)			−0.01	(0.03)
Multiracial			0.02	(0.03)			0.03	(0.03)			0.01	(0.01)
Female			−0.09**	(0.02)			−0.13**	(0.02)			0.04**	(0.01)
Year in school			0.00	(0.01)			0.00	(0.01)			−0.01**	(0.00)
Interactions with caregiving most of day												
Asian			0.05	(0.09)			0.02	(0.08)			0.00	(0.04)
Black			0.11	(0.06)			0.08	(0.10)			−0.05	(0.02)
Latinx			0.02	(0.06)			0.03	(0.05)			−0.01	(0.02)
Native or Pacific Islander			0.15	(0.26)			0.27	(0.22)			−0.10	(0.06)
Multiracial			−0.10	(0.05)			−0.06	(0.06)			−0.01	(0.02)
Female			−0.22**	(0.04)			−0.35**	(0.05)			0.05**	(0.02)
Year in school			0.01	(0.01)			0.00	(0.01)			−0.01**	(0.00)
Constant	0.69**	(0.10)	0.68**	(0.09)	0.32**	(0.07)	0.30**	(0.06)	0.12**	(0.02)	0.10**	(0.02)
Observations	48,508		48,508		48,508		48,508		48,508		48,508	
R-squared	0.03		0.03		0.01		0.01		0.04		0.04	

Note. Standard errors are in parentheses. *Native* refers to Native American, Alaskan, Hawaiian, or Pacific Islander.
**p < 0.01.

interactions in Model 2. Specifically, caregiving for most of the day and for part of the day interacted significantly with gender to predict school engagement. As shown in Figure 1, girls who provided caregiving for part of the day or most of the day reported significantly lower levels of school engagement compared to girls who were not involved in caregiving ($β = −.06$, $p < .001$, and $β = −.13$, $p < .001$, respectively). However, boys who provided caregiving did not differ in their levels of school engagement compared to boys who were not involved in caregiving ($β = .02$, $p = .703$, and $β = .09$, $p = .448$, respectively).

School Belonging. As shown in Model 1, caregiving was not directly associated with feelings of belonging. However, as shown in Model 2, there were several significant interactions between caregiving and demographic characteristics predicting belonging. First, caregiving for part or

most of the day interacted significantly with gender to predict belonging. As shown in Figure 2, girls who provided caregiving for part of the day or most of the day reported significantly lower levels of belonging compared to girls who were not involved in caregiving ($β = −.13$, $p = .025$, and $β = −.15$, $p < .001$, respectively). However, boys who provided caregiving did not differ in their levels of belonging compared to boys who were not involved in caregiving ($β = .00$, $p = .956$, and $β = .20$, $p = .110$, respectively).

Second, caregiving for part of the day interacted significantly with Black identity and with Native/Pacific Islander identity to predict belonging. Specifically, as shown in Figure 3, panel A, Black youth who provided caregiving for part of the day reported significantly higher levels of school belonging compared to Black youth who did not provide any caregiving ($β = .06$, $p = .006$). In contrast,
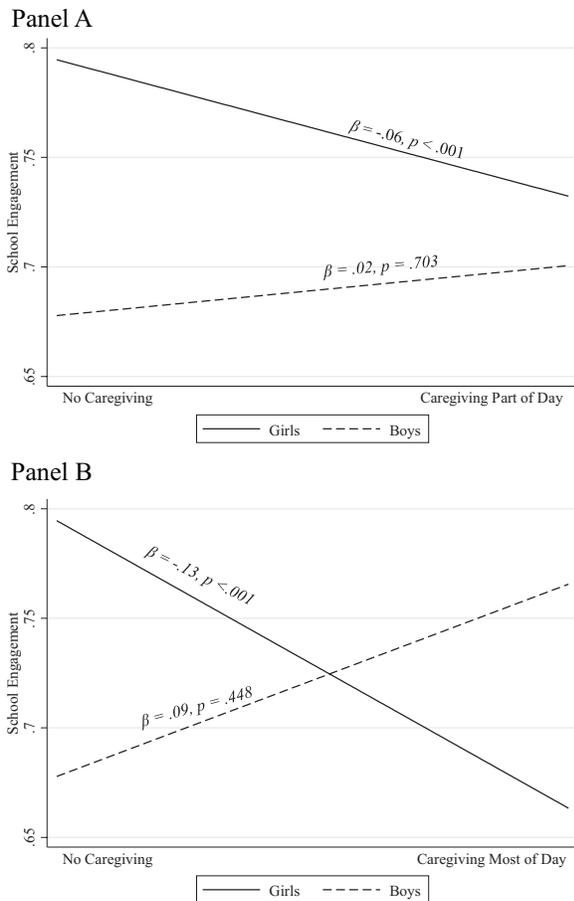
School Engagement

$\beta = -.06, p < .001$

$\beta = .02, p = .703$

No Caregiving   Caregiving Part of Day

Girls --- Boys

Panel B

School Engagement

$\beta = -.13, p < .001$

$\beta = .09, p = .448$

No Caregiving   Caregiving Most of Day

Girls --- Boys

FIGURE 1.   *Caregiving is associated with lower levels of school engagement among girls, but not boys.*

Panel A

School Belonging

$\beta = .00, p = .956$

$\beta = -.13, p = .025$

No Caregiving   Caregiving Part of Day

Girls --- Boys

Panel B

School Belonging

$\beta = .20, p = .110$

$\beta = -.15, p < .001$

No Caregiving   Caregiving Most of Day

Girls --- Boys

FIGURE 2.   *Caregiving is associated with lower levels of school belonging among girls, but not boys.*

caregiving was not associated with belonging among White non-Latinx youth ($\beta = .00, p = .956$). Similarly, as shown in Figure 3, panel B, Native/Pacific Islander youth who provided caregiving for part of the day reported significantly higher levels of school belonging compared to Native/Pacific Islander youth who did not provide any caregiving ($\beta = .30, p = .022$). Again, in contrast, caregiving was not associated with belonging among White non-Latinx youth ($\beta = .00, p = .956$).

Feelings of Sadness. As shown in Model 1, caregiving for part and most of the day were both positively associated with the likelihood of experiencing ongoing sadness. However, these direct associations were qualified by significant interactions in Model 2. Specifically, caregiving for part or most of the day interacted significantly with gender to predict the likelihood of sadness. As shown in Figure 4, this was a significant difference in the intercepts between boys and girls, such that girls were more likely to experience sadness on average compared to boys, regardless of their caregiving experiences. However, caregiving boys and girls were both
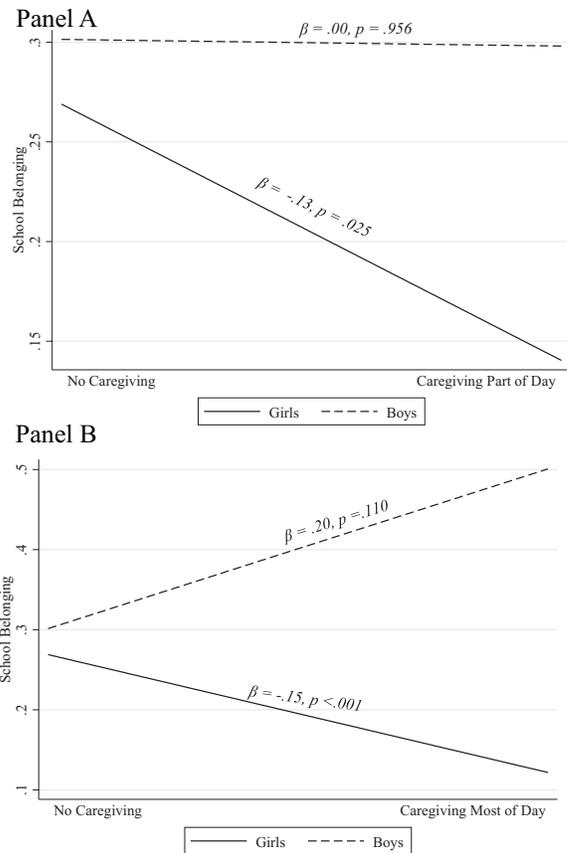
more likely to experience ongoing sadness compared to their noncaregiving peers ($p < .001$).

In addition, caregiving for part of the day interacted significantly with Black race to predict the likelihood of experiencing ongoing sadness. As shown in Figure 5, although the simple slopes for both groups were significant, caregiving youth were significantly more likely to have felt sad or hopeless for 2 or more weeks during the past year if they were White non-Latinx ($\beta = .15, p < .000$), compared to if they were Black ($\beta = .11, p < .000$).

Finally, caregiving for part or most of the day interacted significantly with year in school to predict the likelihood of sadness. As shown in Figure 6, there were again differences in the intercepts, such that older students (e.g., students in Grade 11 or 12) were more likely to have felt sad or hopeless compared to younger students (e.g., students in Grade 6 or 7). However, caregiving for part and most of the day was linked to greater risk of experiencing sadness among older ($\beta = .15, p < .000$) and younger students ($\beta = .11, p < .000$). Effect sizes indicated that the magnitudes of these associations were small. There were no other significant associations.
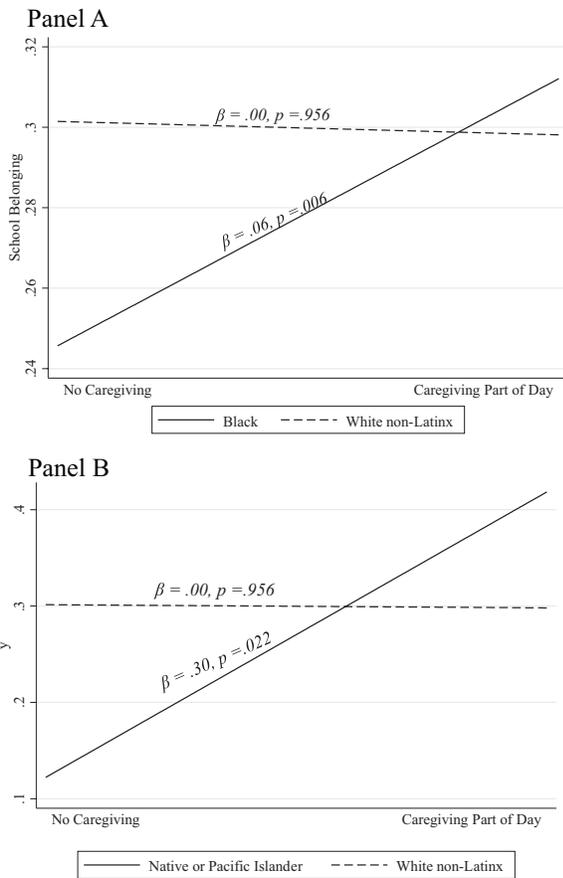
Panel A

β = .00, p =.956

β = .06, p =.006

School Belonging

No Caregiving — Caregiving Part of Day

Black — — — White non-Latinx

Panel B

β = .00, p =.956

β = .30, p =.022

y

No Caregiving — Caregiving Part of Day

Native or Pacific Islander — — — White non-Latinx

FIGURE 3. *Caregiving for part of the day is associated with higher levels of school belonging among Black and Native youth, but not among White non-Latinx youth.*

Panel A

β = .19, p = 000

β = .14, p = .000

Likelihood of Sadness

No Caregiving — Caregiving Part of Day

Girls — — — Boys

Panel B

β = .27, p = 000

β = .22, p = .000

Likelihood of Sadness

No Caregiving — Caregiving Most of Day

Girls — — — Boys

FIGURE 4. *Caregiving boys and girls were more likely to experience ongoing sadness compared to their noncaregiving peers. However, there was also significant difference in the intercepts between boys and girls, such that girls were more likely to experience sadness on average compared to boys, regardless of their caregiving experiences.*

Discussion

This research-practice-partnership-based study piloted one of the first statewide surveys in the United States to formally count caregiving students in schools. The goal was to understand how many middle and high school students are involved in caregiving for siblings, parents, and grandparents on a daily basis and whether caregiving is related to school engagement, school belonging, and emotional well-being among different demographic groups. In a large, diverse sample of middle and high school students across Rhode Island, this study revealed that a sizeable proportion of students were involved in caregiving, particularly girls and youth from historically marginalized racial and ethnic groups. Caregiving was consistently linked to greater experiences of sadness across demographic groups. Further, caregiving girls reported lower levels of school engagement and school belonging. However, Black, Native American, or Pacific Islander youth who were involved in caregiving for part of the day reported higher levels of school belonging compared to their noncaregiving peers of the same racial and ethnic backgrounds. These findings underscore
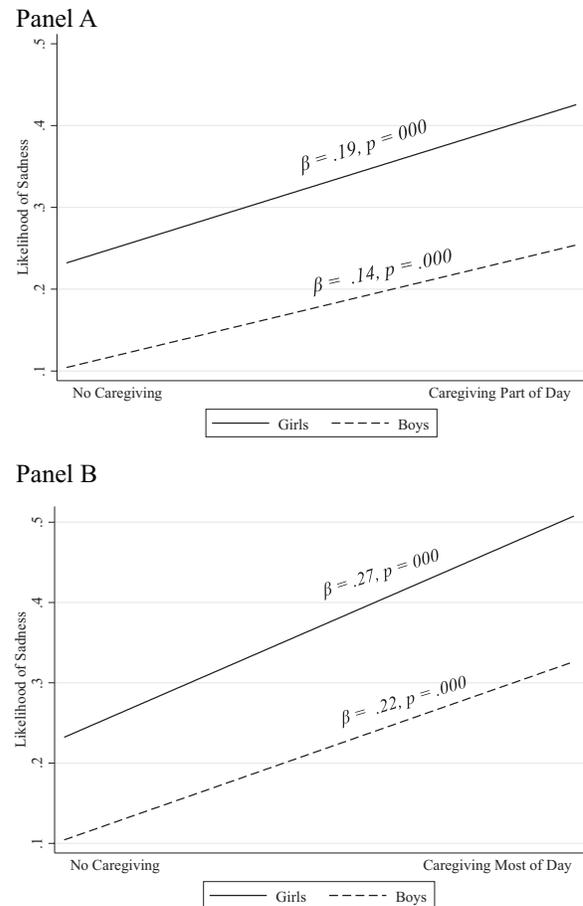
the importance of identifying caregiving students in schools and suggest that, although caregiving students from all demographic groups on average experience heightened emotional challenges, moderate levels of caregiving may be related to greater belonging among youth from Black and Native backgrounds.

A Sizable Portion of Students Are Caregivers, Mostly From Historically Marginalized Groups

In our study, almost 29% of students reported caregiving for a sibling, parent, or grandparent for part of the day, and 7% reported caregiving for most of the day. These percentages corresponded to more than 13,000 and 3,000 students, respectively. These findings build on the only other large-scale prior school-based study in the United States to systematically identify caregiving students (Armstrong-Carter et al.,
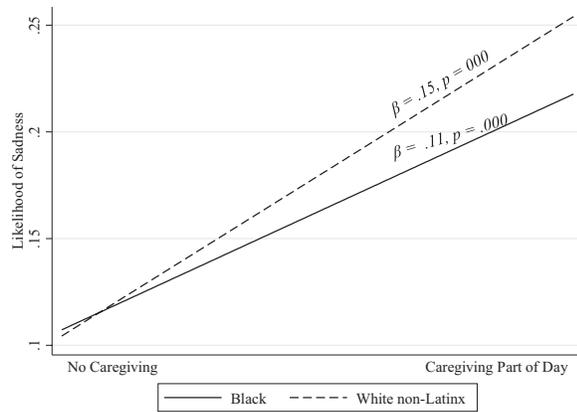
FIGURE 5. *Caregiving for part of the day was associated more strongly with the likelihood of experiencing ongoing sadness among White non-Latinx youth compared to among Black youth. However, caregiving for part of the day was associated significantly with greater likelihood of experiencing sadness among both groups.*

2021; Armstrong-Carter et al., 2022). In 2019, in Florida, that study found that 18% of middle and high schoolers cared for someone who was sick, elderly, or aging for 1 day or more per week (Armstrong-Carter et al., 2021). Our estimates from Rhode Island are comparable but differ slightly from those of Florida, likely for at least three reasons. First, our survey item inquired about caregiving for someone who was sick, elderly, or aging and *also* for typically developing younger siblings, who did not necessarily have special needs. Second, we differentiated between caregiving for part of the day or most of the day, which the Florida-based study did not. Therefore, our estimates are slightly larger for caregiving for part of the day, which is more common (i.e., 29% compared to 18%), and slightly lower for caregiving for most of the day (i.e., 7% compared to 18%). Indeed, our finding that 7% of students provide care for most of the day approximates national estimates that 7.28% (5.4 million) children and adolescents are involved in daily caregiving for a loved one (AARP & National Alliance for Caregiving, 2020). Third, our study was conducted during the COVID-19 pandemic in 2021, whereas the Florida study was conducted pre-pandemic in 2019 (Armstrong-Carter et al., 2022), so pandemic conditions may have affected our results. For example, more students may have been caregiving (at least for part of the day) due to pandemic-associated increases in family illness and financial stress. Future research should replicate our study after the pandemic to clarify whether the number of caregiving students remains consistent across time.

Asian, Black, Latinx, Native/Pacific Islander, and multiracial youth were significantly more likely to provide caregiving for family for part or for most of the day compared to White non-Latinx youth. These racial and ethnic disparities in youths' experiences providing care are largely consistent
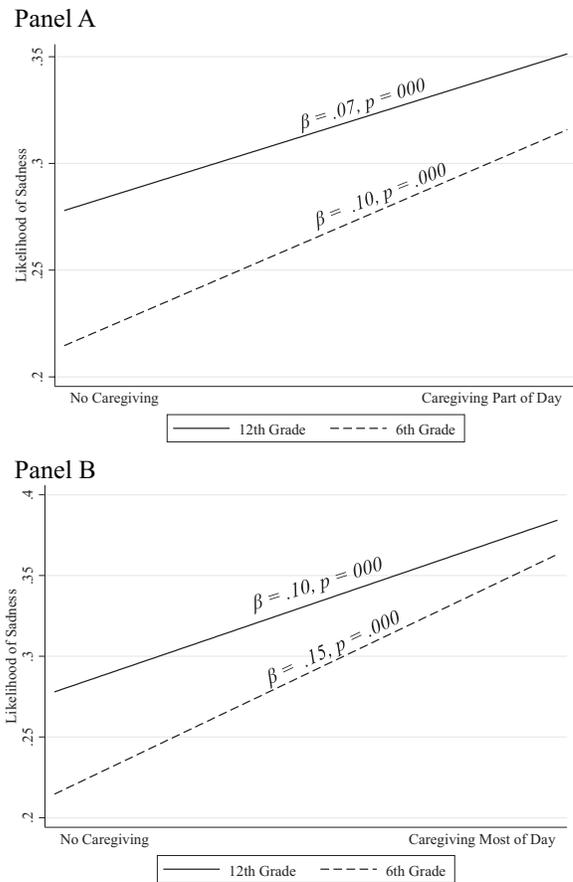

FIGURE 6. *Caregiving youth from older and younger grades were more likely to experience ongoing sadness compared to their noncaregiving peers. There was also significant difference in the intercepts, such that youth from older grades were significantly more likely to experience sadness compared to youth from younger grades.*

with prior research. In Florida, Latinx and Black youth provided higher levels of caregiving compared to youth from White non-Latinx, Asian, or other/mixed-race backgrounds (Armstrong-Carter et al., 2022). Because that sample was less than 3% Asian and other/mixed race, our larger and more diverse sample offered greater statistical power to detect differences between these groups. Consistent with our findings, caregiving students who were older adolescents and adults (ages 18–35) were also more likely to be Black, Latinx, Asian, or other race/ethnicities compared to their noncaregiving peers (Skufca & O'connell, 2020).

Youth from Asian, Black, Latinx, Native/Pacific Islander, or multiracial backgrounds may be more likely to care for family in part because these youth and families often place positive cultural emphasis on community ties, close interpersonal connections, and mutual provision of support (DeFreitas, 2019; Gaylord-Harden et al., 2018; Lozada et al., 2017; White-Johnson, 2012). For example, youth from

Latinx and Asian backgrounds often report feeling a strong sense of family obligation and care (Fuligni et al., 1999; Hardway & Fuligni, 2006). Families with historically marginalized identities may also need youths' caregiving contributions more because they, on average, have lower household incomes, due to persistent socioeconomic inequalities and institutionalized and racialized economic and social barriers (Census Bureau, 2020). Our study emphasizes the positive contributions that youth from historically marginalized backgrounds make to their families and highlights how they persist in the face of ongoing contextual challenges and barriers (Gaylord-Harden et al., 2018).

We also find that girls were more likely to care for family for most of the day compared to boys and other youth who did not identify as girls. This finding is consistent with gendered expectations for household labor in the United States and the socialization of girls as caregivers (Pinquart & Sörensen, 2003). It is also consistent with caregiving adults in the United States, who are more likely to be women compared to men (Pinquart & Sörensen, 2003). However, in Florida, middle and high school boys provided higher levels of caregiving for sick, elderly, or aging relatives compared to girls (Armstrong-Carter et al., 2021). It is also possible that boys are more likely to be involved in caregiving for sick or aging relatives, whereas girls are more likely to be involved in caregiving generally, including for typically developing younger siblings, as we assess in our study. Alternatively, gendered differences in caregiving may vary across states (e.g., Florida compared to Rhode Island) due to different socioeconomic, cultural, and social processes. Future research should replicate our findings and further explore gender differences in caregiving students across different contexts nationwide.

Caregiving Youth Are Consistently More Likely to Experience Intense Sadness

Caregiving students of all groups were more likely to have experienced intense sadness for at least 2 weeks or more in the last month compared to their noncaregiving peers. The positive association between caregiving and sadness was particularly strong among White non-Latinx youth compared to Black youth, but it was significant in both groups. These findings corroborate growing evidence that caregiving students experience heightened risk for ongoing emotional distress. In Florida, caregiving youth experienced more sadness and suicidal behaviors (Armstrong-Carter et al., 2021). Caregiving students may experience higher levels of sadness due to the stresses and worries associated with caregiving for their loved one. For instance, caregiving students may worry about the well-being and development of their younger siblings and feel stress or emotional burden because they feel responsible for their siblings' well-being. Similarly, students who care for an aging or ill parent or grandparent may worry about their loved one's physical comfort, health, or longevity. They may also worry about how to cope or best support their loved one. For example, in semi-structured qualitative interviews (Nickels et al., 2018), caregiving youth reported that they needed significant organizational and administrative skills to administer medication to their loved ones but had received insufficient training. The experience of caregiving without training or resources can contribute to feelings of worry, sadness, helplessness, and isolation (Nickels et al., 2018). Caregiving tasks themselves can also be taxing and contribute to or exacerbate sadness by interfering with sleep, social activities, or self-care or by causing worry about finances, treatment options, or long-term outcomes. Although helping family in moderate amounts has been linked to positive emotions (e.g., Telzer & Fuligni, 2009a), our findings converge with prior evidence (Armstrong-Carter et al., 2021; Cohen et al., 2012) that caregiving on a time-consuming or ongoing daily basis during childhood and adolescence is consistently linked with emotional risk across individual differences in gender, age, and ethnicity.

Black and Native Caregiving Students Feel Greater Belonging

Among students who identified as Black, caregiving for part and most of the day was associated with higher levels of school belonging, whereas caregiving was not linked to belonging among White non-Latinx youth. Black adolescents and families often place positive cultural emphasis on community ties, close interpersonal connections, and mutual provision of support (DeFreitas, 2019; Gaylord-Harden et al., 2018; Lozada et al., 2017; White-Johnson, 2012), so caregiving for others may be positively linked to feelings of school belonging in this population. Supporting the family may be one of ways in which Black adolescents overcome systematic barriers to education and adaptively achieve educational success (Gaylord-Harden et al., 2018). Black caregiving youth may be particularly focused on engaging and connecting positively with family members' care needs and their school community. In addition, because Black youth provided the highest levels of caregiving in our sample, caregiving may have contributed to feelings of connectedness with family, peers, and school community among Black youth rather than to feelings of isolation because it is more common among other youth in the Black community. Indeed, in a prior nationally represented sample of Black adolescents, those who provided more frequent emotional support to the family (although not childcare) reported more positive school engagement (Armstrong-Carter, 2022). In contrast, in a different study of predominantly Asian, Latinx, and White non-Latinx adolescents, provision of emotional support was not associated with school engagement (Armstrong-Carter & Telzer, 2021). Our study builds on this

prior research by focusing on caregiving more explicitly (compared to provision of emotional support) and by capitalizing on a large, diverse sample to directly compare processes between groups in the same sample. We reveal that caregiving is associated with higher levels of school belonging for youth who identify as Black but not White non-Latinx.

Native American Caregiving Students Feel Greater Belonging

Similar to Black caregiving youth, caregiving youth from Native American, Alaskan Hawaiian, and Pacific Islander backgrounds also reported greater feelings of school belonging, whereas White-non Latinx youth did not. Caregiving may be more impactful for Native American youths' feelings of belonging in school (compared to those of White non-Latinx youth) because Native American students on average feel lower levels of belonging compared to those from other racial and ethnic groups (Debnam et al., 2014). This disparity in school belonging is influenced by two factors. Native American students are a small minority in many mainstream public schools in the United States, including our Rhode Island sample, where they made up just over 1% of the population (about 600 students). Second, as qualitative interviews of Native American students have highlighted, "the experience of attending public schools can produce feelings of estrangement for those who fall outside the Western mainstream" (Smagorinsky et al., 2012). Feelings of estrangement can distance Native American youth emotionally from school and decrease their sense of belonging (National Caucus of Native American State Legislators, 2008). In the context of racialized and cultural feelings of isolation, Native American caregiving youth may feel more self-efficacy, more usefulness, or greater role fulfillment and purpose, which further contributes to their sense of belonging in school. Native American caregiving youth may also feel greater belonging in school because performing well in school and graduating can serve as a way of further contributing to their family. Future qualitative research among Native American caregiving students will illuminate why caregiving is related to greater school belonging in this population.

Caregiving Girls Feel Less School Engagement and Belonging

Finally, our study finds that caregiving girls felt lower levels of school engagement and belonging compared to noncaregiving girls. Caregiving was not related to school engagement and belonging among boys. There are several reasons why caregiving could relate to lower levels of school engagement and belonging among girls, but not among boys. For girls, caregiving may be more expected because they are often socialized to behave as "nurturers" and caregivers (Rose & Asher, 2017). Due to heightened societal and familial expectations, girls' provision of care may be more time-consuming and emotionally draining, which, in turn, could detract time, engagement, and motivation away from school activities, peer relationships, and the school community. Indeed, girls were more likely to provide caregiving in our sample compared to boys. In prior work, adolescent girls also helped the family more consistently at higher levels, whereas boys increased their help to the family contingently based on family need, such as when their mothers felt fatigued (Tsai et al., 2013). In addition, caregiving may be less strongly linked with boys' school engagement and belonging if caregiving offers boys additional opportunities to practice cognitive and behavioral skills that offset negative side effects on school adjustment. For example, because boys on average have fewer opportunities to practice caring for another person and are often socialized and expected to appear "tough" or uncaring, caregiving may give boys chances to practice perspective-taking, emotion-regulating, planning, organization, and attending to another person's well-being. Specifically, caring for a sibling, parent, or grandparent could help boys practice self-regulating, communicating, reflecting on their values, and investing in interpersonal relationships, all of which could increase feelings of mutual support and help them maintain positive school engagement and belonging, despite the challenges. Future qualitative research should investigate these mechanisms and others to help unpack why girls experience lower levels of school engagement and belonging when they are caregivers, but boys do not.

Implications for Schools, School Administrators, and Education Researchers

This study highlights important considerations for educational researchers, administrators, and practitioners. Of primary importance, we demonstrate the feasibility of forming and maintaining interdisciplinary partnerships between researchers and local and statewide school departments of education to collaboratively start identifying and supporting caregiving students. By adding a single questionnaire item to an existing statewide health and behavioral risk survey, we were able to systematically identify caregiving students in schools and assess their outcomes for the second time in U.S. history. Indeed, partnerships between researchers and educators and school administrators provide unique opportunities for co-creating science (Whitmore & Mills, 2021) and facilitating research that directly addresses the needs of students and schools. Our findings demonstrate the need for more partnerships specifically focused on caregiving students across the United States. We hope that this study provides a preliminary a model (e.g., example survey items, study design; see also Supplementary Materials) for other

states to begin identifying and supporting caregiving students in schools and other community settings.

The importance of partnering to identify caregiving students in schools is underscored by our finding that caregiving youth from all demographic groups face heightened emotional risk. This concerning result highlights a need to support caregiving youth and their families via school policies and supports. For example, schools may be able to provide additional resources and accommodations for caregiving students. Schools may also partner with national, regional, and local caregiving organizations to extended services to include young people under age 18, which could help mitigate financial challenges and reduce negative impacts on development.

The results from this study will support Rhode Island in adopting revised educational plans and graduation requirements that will provide recognition, support, and flexibility to caregiving youth. Based on the survey findings, the Rhode Island Department of Education has decided to focus on caregiving youth as part of their "reimaging education" initiative, which aims to make education more accommodating and accessible for all students (McGowan, 2021). The Rhode Island Department of Education will recognize and support caregiving youth in two ways. First, the department will continue to identify the prevalence and variability of caregiving students across the state. In 2023, we will replicate and extend this study by including additional items to assess caregiving youth in our annual questionnaire. These items are listed fully in the Supplementary Materials; they include differentiating between caregiving for typically developing individuals (e.g., siblings) versus caregiving for a person who needs assistance because they have a health condition, such as chronic illness, injury, or disability or are elderly. We will also specify between care recipient (e.g., parent vs. sibling vs. grandparent). Further, we plan to pilot a more extensive eight-item survey focused on caregiving youth in 2023 (see Supplementary Materials). We hope that other state departments of education will use and expand on these materials and begin to count the number of caregiving youth in annual health risk and behavioral surveys.

Second, the Rhode Island Department of Education will use the results from this study to design new statewide regulations and supports to promote the well-being of caregiving students. These regulations and supports are currently under design in collaboration with parents, teachers, students, and other community stakeholders. They may include policies for allowing additional flexibility for caregiving youths' course schedules (e.g., part-time vs. full-time; online vs. in person; different timing of classes, including possible evening classes). They may also include granting community service or training credit for out-of-school work, including caregiving for family (e.g., certified nursing assistant hours). There may be additional skills-building classes for caregiving youth and lunch-hour support groups. No student should have to choose between caring for someone they love and maintaining their emotional well-being or engaging positively in school.

Limitations and Future Directions

We acknowledge study limitations. First, we measured caregiving and sadness via single items. Although this approach minimized burden and time for students completing a lengthy survey in schools across the state, it did not provide full insight into students' experiences of caregiving and emotional distress. Specifically, we measured caregiving with a single item that assessed caring for siblings, parents, and grandparents. We did not differentiate between care recipients or inquire whether the care recipient had a disability or illness (e.g., mental, cognitive, physical), although we plan to in future work. It is particularly important to distinguish between caring for younger siblings who are typically developing versus experiencing health challenges or disability in future research. Further, it is unclear from our study which types of care youth provided. Longitudinal studies in the future should also assess duration of caregiving (e.g., ranging from weeks to years). These factors all are likely to moderate the extent to which caregiving is associated with students' school-related adjustment and well-being.

Second, our study used self-report measures, which provided unique insight into students' lived experiences and perceptions but also could be partially biased. For instance, some youth may have had difficulty identifying their help as caregiving. Sitting with an aged family member or sleeping in the room of a person with a disability to provide aid during the night may not have been interpreted by young people as providing care for someone. This is especially true in the context of the United States, where caregiving youth are not recognized in policy, education, or youth services and are therefore less likely to recognize some forms of family help as caregiving (Leu & Becker, 2017). Greater reliability of U.S. caregiving youth might be achieved by a more comprehensive approach, such as the Longitudinal Study of Australian Children, which uses a series of questions to better help youth self-identify as having caregiving responsibilities (Warren & Edwards, 2017).

Third, although our study paints a robust, representative picture of caregiving youth in Rhode Island, future studies should replicate our findings in other states in the United States to find out whether the percentages and experiences of caregiving youth are influenced by local socioeconomic context and rural/urbanicity. For instance, caregiving youth in very rural areas may face additional challenges engaging in school and maintaining emotional well-being due to more limited community or geographic isolation (Miller & Votruba-Drzal, 2015).

Fourth, we were unable to control for family socioeconomic or immigration status due to the legal constraints of collecting this information from large, government-funded, school-based surveys. Our results may be confounded in part by socioeconomic status and immigration experiences. Specifically, controlling for socioeconomic status and immigration would likely reduce our observed estimates and effect sizes. For instance, caregiving youth likely came from families with lower socioeconomic status and face additional emotional challenges and educational barriers. Further, families that included undocumented adults or children may have been denied access to existing institutional resources or resources to supplement in-home help. Caregiving youth who were from undocumented families may also have felt less comfortable self-identifying as caregivers. Future research should investigate the extent to which controlling for family socioeconomic and immigration status changes our observed exploratory results. Socioeconomic indices could be carefully collected and linked via school administrative records, such as students' receipt of free and reduced-price lunches, which are typically provided to students from low-income households. If individual-level measures of socioeconomic status are not available due to privacy concerns and the difficulties of collecting this information from children in schools, other measures may be leveraged at the school level as covariates, such as the proportion of students eligible for free and reduced-price lunch and relative racial and ethnic diversity. We were, unfortunately, unable to link our data to this school-level information due to privacy concerns.

Measuring individual and/or school-level family background and socioeconomic status in the future will also help explain more of the variance in caregiving and student adjustment than our models did. In our study, the magnitudes of observed associations were small, which suggests that other factors (such as family socioeconomic status and background) affect students' experiences of caregiving and adjustment.

Finally, future research should explore whether children's and adolescents' provision of caregiving to the family differentially affects developmental outcomes, depending on the household resources available (e.g., household income, maternal education, or neighborhood quality). More intersectional research that addresses multiple overlapping identities is imperative to understand the experiences of caregiving youth, enable them to achieve their developmental potential, and increase equitable experiences and access to education.

Conclusion

Capitalizing on the largest, second school-based survey in U.S. history to assess caregiving youth, we provide robust evidence from Rhode Island. We demonstrate that (a) a sizeable proportion of students are involved in caregiving on a daily basis, (b) youth from more marginalized groups are more likely to be caregiving, and (c) caregiving is consistently linked to greater feelings of sadness (i.e., emotional risk), but the link between caregiving and school engagement and belonging is more complex and differs by individual characteristics. In particular, caregiving girls report lower school engagement, and caregiving Black and Native American youth report greater school belonging. More school-based research and supports are imperative to understand the experiences of caregiving youth, enable them to achieve their developmental and academic potential, and mitigate inequalities between students.

Open Practices

The data and analysis files for this article can be found at https://doi.org/10.3886/E180141V1.

ORCID iD

Emma Armstrong-Carter 🔵 https://orcid.org/0000-0002-5847-9486

Supplemental Material

Supplemental material for this article is available online.

Note

1. Out of 66 total LEAs in Rhode Island statewide, these 52 LEAs are those that have middle and/or high schools. Out of 66 LEAs, 14 have only elementary schools.

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Authors

EMMA ARMSTRONG-CARTER is a developmental psychologist and a postdoctoral researcher at the University of California, Berkeley. She researches children's and adolescents' experiences helping and caregiving for family—and how these experiences relate to their school success and well-being.

STEVE OSBORN is the State Strategy and Student Opportunity officer at Rhode Island Department of Education. He leads efforts to make sure that every child has the opportunity to choose the school and course experiences that help them reach their full potential.

OLIVIA SMITH is an executive associate (State Strategy and Student Opportunity) at Rhode Island Department of Education, Office of the Commissioner. She has a passion for equity-based, student-centred education policy reform with experience in both qualitative and quantitative research analysis and evaluation methods.

CONNIE SISKOWSKI is the founder and President at American Association of Caregiving Youth (AACY). This is a nonprofit that serves children and adolescents who provide significant or substantial assistance, often on a regular basis, to relatives or household members needing help because of a physical or mental illness, disability, or frailty. It is the only organization in the United States dedicated solely to addressing Caregiving Youth issues. Her dream is for all family caregivers to be honored and respected but especially youth for their contributions to family and to society; no child in the US should have to drop out of school because he or she has to care for a family member.

ELIZABETH A. OLSON is a professor of Geography and Global Studies at UNC-Chapel Hill. She also serves as department chair. Her research and advocacy work focuses on understanding historical and contemporary caregiving by young people in the United States and the future of care.