School-Based Policies to Identify Adversity in Childhood and Mitigate the Effects of Toxic Stress in Texas

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Drawing on evidence and example legislation, this policy research brief identifies school-based policy options for Texas to prevent and mitigate toxic stress caused by Adverse Childhood Experiences (ACEs). The term ACEs refers to the 10 common categories of adversity included in a landmark study from the Centers for Disease Control and Prevention and Kaiser Permanente (Felliti et al., 1998). These include physical, emotional, or sexual abuse; physical or emotional neglect; and household challenges such as living with a person who is experiencing mental illness (Felliti et al., 1998).[1] Of great concern is that even before the COVID-19 pandemic, ACEs were already widespread in the state, cutting across lines of race and income and potentially affecting constituents from every region and demographic group (Texas Department of State Health Services, n.d.). Over the past two years, COVID-19-related school and child-care center closures coupled with an economic recession have increased children's risk of hunger, homelessness, and neglect (Welch & Haskins, 2020). The effects of ACEs are particularly concerning in Texas which is home to over 7.5 million children under 18—more than any state other than California—and children under 18 make up more than 25% of the population of Texas—more than any other state other than Utah (Population Reference Bureau, n.d.). Therefore, Texas's school-based policies to mitigate the effects of toxic stress are particularly consequential now and in the future. The purpose of this policy research brief is to identify and describe nationwide legislative efforts to help Texas school district officials and Texas policymakers consider legislative remedies to reduce or mitigate the detrimental impact of ACEs.

Keywords: adverse childhood experiences, trauma, trauma-informed practices, Texas education policy, community schools

Background

Research from the last several decades has clarified how a person's experiences and environments influence their brain and body and impact their life trajectory (Institute of Medicine & National Research Council, 2000; Maggi et al., 2010; Office of the California Surgeon General, 2020; Van Der Kolk, 2014). Studies show that without adequate adult support, ACEs such as physical or emotional abuse, loss of a parent, or household violence can cause prolonged activation of children's stress response systems (Center for the Developing Child, 2022). Unless a child has buffering relationships with adults, stress from ACEs can become "toxic"—spiking children's heart rate and cortisol levels, and negatively affecting their neurological systems (Center on the Developing Child, n.d.). Children who frequently experience oppression, such as sexism or racism, are at even greater risk for heightened arousal and prolonged exposure to stress (Liu et al., 2020; Maguire-Jack et al., 2020). Evidence suggests that when left unaddressed, ACE-related toxic stress can lead to severe educational losses, serious health problems, and economic costs to the state (Blodgett & Lanigan, 2018; Center on the Developing Child, n.d.; Crouch et al., 2021; Felliti et al., 1998; Ghanem, 2021; Liu et al., 2020).

According to data from the Texas Behavioral Risk Factor Surveillance System, ACEs are widespread in Texas (Texas Department of State Health Services, n.d.), and their impact in the state may be higher than estimated due to the possibility of trauma from incidents that are not included on formal ACE assessments, such as natural disasters and encounters with immigration enforcement. Evidence

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[1] As society grows in its awareness about the prevalence of ACEs, many people now use the term ACEs to refer to all forms of adversity that children may face during childhood (Office of the California Surgeon General, 2020).

suggests that the experience of having parents who are at risk for or have been detained or deported increases a child's risk of depression and anxiety, attention and speech delay, and low school performance (Gulbas et al., 2016; UnidosUS, 2019). When immigration detention or deportation occurs, the effect of separation from a parent and the resulting loss of income to the household (Murguía, 2019; Warren & Kerwin, 2018) is like parental incarceration, a recognized ACE (Barajas-Gonzalez et al., 2021). The impact of immigration enforcement is particularly relevant in Texas because the state is second only to California in the number of unauthorized immigrants residing in the state (Migration Policy Institute, n.d.). Similarly, natural disasters, such as hurricanes, are not formally categorized as an ACE but may dramatically impact young people. Texas ranks first in the country for the variety and frequency of natural disasters (California Institute of Technology Jet Propulsion Laboratory, 2017). Natural disasters can cause significant physical harm, property loss, and post-traumatic stress disorder (PTSD; Bernstein, 2019), but are not accounted for in current ACE assessments.

Increased ACEs are associated with academic risk factors such as grade repetition, behavioral health issues, chronic absenteeism, developmental delays, learning disorders, and physical health ailments that may impact children's ability to participate in school (Bellis et al., 2018; Hughes, 2012; National Center for Injury Prevention and Control, Division of Violence Prevention, n.d.; Suleiman et al., 2021). Some of the health issues resulting from ACEs are costly to taxpayers (Liu et al., 2020). Although cost data aren't available for Texas specifically, the annual cost of ACEs in North America is estimated to be $748 billion, or 3.55% of the gross domestic product (Bellis et al., 2019), suggesting that implementing ACE-prevention and -mitigation strategies may save money as well as improve lives (Bellis et al., 2019). In addition to health-related expenditures, preventing ACEs or mitigating their impact is also thought to reduce government expenditures in other areas, including state incarceration programs and social welfare systems (Srivastav et al., 2020).

Research shows that it is possible to reduce the harmful effects of toxic stress through social relationships, including access to caring adults and supportive friendships (Center on the Developing Child, n.d.). Thus, schools are a natural site for identifying, preventing, and decreasing the harmful effects of toxic stress (e.g., Blodgett & Lanigan, 2018). Although pediatricians' offices have also been suggested as potential sites for identifying children in adverse situations, there is little research to indicate which interventions from doctors' offices are efficacious (Petruccelli et al., 2019). Meanwhile, caring relationships with educators and other adults in their schools have been shown to prevent and interrupt the toxic stress response associated with ACEs (Bellis et al., 2018; Liu et al., 2020). Moreover, school friendships and relationships with teachers are central to the development of social-emotional competencies. Social-emotional skills, such as self-awareness and stress management, are significant predictors of academic achievement, job success, income, and health risk behaviors (Blodgett & Dorado, 2016). Accordingly, the following review of state policies identifies and describes legislation designed to help schools mitigate the harmful effects of ACEs.

Purpose of the Review

The promise of schools as a site for preventing and mitigating ACEs has prompted advocacy and public demand. Ultimately, this demand has led to both federal and state policymakers' interest in school-based policies to reduce the effects of ACEs and toxic stress on children's wellbeing and educational performance (Srivastav et al., 2020). Purtle and Lewis (2017) conducted a federal policy mapping study to explore how interest in trauma-informed practices had translated into federal public health law. The authors found that nearly two-thirds of all federal bills introduced between 1973 and 2015 addressed young people. The authors further called for future researchers to review state

policies to enhance understanding of trauma-informed legislation at the state level (Purtle & Lewis, 2017). Accordingly, the following review of state policies elaborates on model ACEs legislation designed to help schools mitigate the harmful effects of ACEs. Identifying and describing these nationwide legislative efforts may help Texas school district officials and Texas policymakers consider legislative remedies to reduce or mitigate the detrimental impact of ACEs.

Methods

We reviewed the National Conference of State Legislatures' (2022) searchable bill-tracking database for state legislation introduced and enacted since 2008. Although we were unable to identify previous studies that employed legislative reviews in the field of education, we drew on previous studies in public health that used policy mapping methodology (Burris et al., 2010) to inform our methods. Policy mapping "is a methodology in which policies and/or policy proposals related to an issue are systematically identified and then analyzed using content analysis" (Purtle & Lewis, 2017, p. 2).

Search Terms

We searched the Education Legislation portion of the National Conference of State Legislators database using the keywords "trauma" and "adverse" as well as variations on these terms, such as "trauma-informed", to identify bills enacted or pending since 2018 that addressed the effects of trauma or adversity. We selected these two terms to help identify as many potential bills as possible. Following this initial search, a researcher scanned each bill to identify whether it contained mentions of "school", "education", "students", or "teachers". Each bill was then read in full to ensure that it addressed schools or the education sector and mentioned trauma, ACEs, or a derivative of those topics such as trauma-informed care or childhood adversity. The use of two search terms is in line with a 2017 policy mapping study on trauma-informed practices (Purtle & Lewis, 2017) and a 2019 interdisciplinary review of research by Thomas et al. on trauma-informed practices in schools. In their reviews, the authors used the terms "trauma-informed", "trauma-informed care", or "trauma-informed practice" to search federal policy databases (Purtle & Lewis, 2017) and research literature (Thomas et al., 2019).

Results

An initial set of 24 bills met inclusion criteria, representing actions from legislators identifying as Democrats, Independents, and Republicans across a spectrum of state political ideologies. To ensure the review was comprehensive, we also reviewed a publication from the Positive and Adverse Childhood Experiences (PACEs) Connection that listed all ACEs and trauma-informed laws and resolutions between 2011 and 2021 (PACEs Connection, 2022). The review of the PACEs Connection publication revealed an additional 19 bills for a total of 43 bills.

Analysis

A researcher reviewed each bill and categorized it based on the researcher's assessment of the primary school-based policy or policies represented in the bill. Each bill was categorized as (a) community schools, (b) trauma-informed school environments, (c) state-level offices or workgroups, or (d) positive discipline practices. These categories were constructed from a review of research literature and informed by the review of bills. Table 1 provides a list of topics and the number of related bills either pending or enacted between 2018 and 2021.

Table 1. State Legislation by State, Year, and Category

Category	2018	2019	2020	2021	Total
Providing support and funding for community school models.		CO, IN			2
Limiting exclusionary discipline practices, such as suspension and expulsion.	DC, IN, WA	CA, HI, IL, TN			7
Establishing state-level offices; Forming working groups and committees.	NY, OK, WI	IN, NH	ME, WA, WV	HI	9
Supporting trauma-informed school environments.	IA, IL, PA, TN, UT, WV	AK, CO, OK, PA	CO, GA, IN, IL, MD, NJ OK, PA, TN	CA, IN, LA, NY, OK, WA	25
Total:	12	12	12	7	43

Discussion

In the following section, we provide additional information on each of these policy categories, including the potential benefits and challenges of each policy. We also include illustrative examples of specific bills from California, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maryland, Oklahoma, Tennessee, and the District of Columbia, as well as two examples of related federal legislation.

Providing Support and Funding for Community School Models

Community schools are public schools run collaboratively by community members that provide services and support that reflect the specific needs of the students and the strengths and challenges of the neighborhood (National Education Association [NEA], n.d.). Some community schools provide health care services, food and clothing drives, adult education, and other services that benefit the whole community. Year-round opportunities for learning and authentic family and community engagement in decision-making are also common practices in community schools (Lubell, 2011; Maier et al., 2017).

Although community schools are growing in popularity in policy circles, they are not a new concept. African American and Latinx grassroots community organizers in New York City first developed community schools in the 1960s (Daniel et al., 2020). Faced with societal oppression and chronic disinvestment, community organizers fought for community control of schools and then used schools as community hubs to address racial inequities (Daniel et al., 2020). While the original community schools were grassroots, their effectiveness, as measured by significant improvements in attendance, behavior, social functioning, and academic achievement, has piqued the interest of federal and state policymakers. As a result, community school models have grown in popularity over the past decade (Lubell, 2011).

Potential Benefits

There is little research that examines the impact of community schools on the incidence of ACEs or the effects of ACEs directly. However, it is reasonable to assume that community schools may address the issue of ACEs both proactively and reactively. Whole-community supports may offer some protection from food insecurity, homelessness, and other adversity, while whole-child supports like mental health care may help mitigate the effects of ACEs. A strong evidence base shows that well implemented and comprehensive community schools are associated with positive student outcomes like significant improvements in attendance, behavior, social functioning, and academic achievement (Kirp, 2011; Maier et al., 2017; National Research Council & Institute of Medicine, 2004). Moreover, from the state and taxpayer perspective, community schools offer an excellent return on investment. Existing cost research shows $15 in social savings and economic benefits for every dollar spent on school-based wraparound services (DeNike & Ohlson, 2013; Maier et al., 2017).

Potential Challenges

Historically, community schools have been a bottom-up rather than a top-down policy. State-level policy strategies that aim to develop or incentivize community schools from the top-down might face challenges with community uptake and implementation. Research shows that implementation fidelity impacts the quality of community schools and their effects on student experiences and outcomes (Maier et al., 2017). Moreover, longer-running community school programs tend to be more effective (Maier et al., 2017), indicating that sustained investment is critically important to a successful community school policy. With current rates of teacher turnover and other difficulties facing school leadership, it may be challenging to guarantee sustained implementation fidelity.

Example Legislation for Community Schools

Federal: RISE (Resilience, Investment, Support, and Expansion) from Trauma Act of 2019. The RISE from Trauma Act (2019) aims to develop and sustain services that could reduce the incidence of trauma among infants, children, and families. The bill provides significant support and funding to hospitals, clinical and early childhood workforce development programs, and establishes the National Law Enforcement Child and Youth Trauma Coordinating Center as an inter-agency task force focusing specifically on trauma-informed care.

Indiana: Student and Parent Support Services Plan. Enacted in 2019, Indiana State Senate Bill (SB) 325 (2019) allows local education agencies to use funds to establish mental health identification programs and related parental support. It also further provides for the study of trauma-informed and community-based approaches to systems of care for students.

Limiting Exclusionary Discipline Practices

Some traditional school discipline practices, such as suspension and expulsion, can reinforce the sense of rejection and isolation brought on by ACEs and toxic stress (Oehlberg, 2008). These exclusionary discipline practices are associated with a wide array of negative outcomes for children, including decreased educational attainment, higher drop-out rates, and involvement with the juvenile justice system (Pierce et al., 2022). In addition, evidence has shown that schools disproportionately apply exclusionary discipline to low-income, male, and racially marginalized students, particularly

Black students (Pierce et al., 2022; Welsh & Little, 2018). Studies have also shown that LGBTQ+ students and students with disabilities are also disproportionately punished using exclusionary discipline practices (Blodgett & Dorado, 2016; Losen et al., 2015). Moreover, recent research has shown that students with "cumulative ACE scores," which indicate the presence of multiple ACEs, are almost four times more likely to have been suspended or expelled (Pierce et al., 2022). As a result of this research base, practitioners and researchers are encouraging schools to replace exclusionary discipline systems with alternative systems to avoid traumatizing or retraumatizing students already facing adversity (Blodgett & Dorado, 2016; Pierce et al., 2022; Welsh & Little, 2018).

Potential Benefits

Eliminating discipline practices that may traumatize students using shame or isolation may benefit all students, especially those who experience adversity outside of schools (Oehlberg, 2008). When implemented with fidelity, trauma-sensitive discipline practices, such as restorative practices, are a shift from punishment to accountability in which the rules and consequences are understood, consistent, and in alignment with students' educational needs. In addition, caring relationships, respect, and cultural understanding are emphasized. When rules are violated, the child is given the opportunity to take responsibility and make amends (Blodgett & Dorado, 2016). Trauma-sensitive discipline practices align with the practices of trauma-informed schools because they can promote cultural understanding and support caring relationships with trusted adults.

Potential Challenges

The success of trauma-sensitive discipline practices, such as restorative practice, is dependent on the fidelity of their implementation as well as the level of support among staff (Blodgett & Dorado, 2016). Furthermore, as with all trauma-informed practices, restorative practices are far less effective when employed solely as a replacement for punishment rather than as a school-wide shift to prioritizing relationships. When used only as a reaction to unwanted behavior, restorative practices may lower the total number of suspensions and expulsions, but racial disparities tend to persist (Welsh & Little, 2018).

Example Legislation for Addressing Specific Discipline Practices

Tennessee: Local Education Agencies ACE Assessment. Enacted in 2019, Tennessee House Bill (H.B.) 405 (2019) requires each local board of education to adopt a policy requiring schools to perform an ACEs assessment before suspending or expelling a student or requiring a student to attend in-school suspension or an alternative school.

District of Columbia: Student Fair Access to School Amendment Act of 2018. Enacted in 2018, District of Columbia Bill (B.) 398 (2018) permanently establishes legal parameters for school discipline policies, limiting the use of suspensions and expulsions to promote trauma-informed educational settings.

Establishing State-Level Offices; Forming Working Groups and Committees

Childhood experience and well-being are complex and cross-sector issues. In recognition of the importance of cross-sector work, states are establishing temporary or permanent structures, such as task forces and offices, to oversee and support ACEs prevention and mitigation strategies across

sectors. State offices are permanent structures with dedicated personnel that can oversee or manage some or all state strategies related to ACEs. Workgroups and task forces are temporary groups that convene experts and/or community members to develop recommendations or provide guidance to the state related to addressing ACEs. Some workgroups and task forces also recommend state-funded research on the topic.

Potential Benefits

The intended purpose of offices and workgroups is to formally convene governmental and non-governmental organizations so they may take coordinated and collective action. Without these formal structures, child-serving organizations may find they are too busy or overwhelmed by day-to-day commitments to take time out for cross-sector convenings.

Potential Challenges

Establishing new permanent government offices may be prohibitively expensive because of the cost of personnel. However, as noted earlier, some of these costs may be offset elsewhere in state budgets in future years as cost savings arise from preventing and mitigating the effects of ACEs. Task forces and workgroups offer a temporary structure in which to identify issues and propose solutions. However, these temporary structures dissolve, and the state may face implementation issues unless dedicated staff are in place.

Example Legislation for Establishing State-Level Offices and Forming Working Groups and Committees

   Oklahoma: Office of Trauma-Informed Care. Since February 2021, Oklahoma H.B. 1774 (2021) is pending in the House. The bill would create an Office of Trauma-Informed Care with various responsibilities, including prompting, organizing, and conducting professional development on trauma-informed practice; increasing coordination across sectors; and creating an advisory board to inform the leadership of the office.

   Hawaii: Trauma-Informed Task Force. Enacted in 2021, Hawaii H.B. 1322 (2021) established a trauma-informed state task force. The bill established a trauma-informed care task force within the Department of Health to (a) develop a statewide framework for trauma-responsive practices, (b) make recommendations regarding trauma-informed care in the state, (c) identify cultural practices that promote community wellness, and (d) convene trauma-informed practitioners to share expertise.

Supporting Trauma-Informed School Environments

The supporting trauma-informed school environments category covers a wide range of policies, such as (a) requiring trauma-informed practices training for educators, care providers, and other professionals; (b) providing funding to state educational agencies to provide technical assistance related to ACEs and/or trauma-informed care; (c) supporting state or local educational agencies to produce training related to ACEs and/or trauma-informed care; and (d) requiring state educational agencies to measure ACEs and/or trauma-informed practices in schools.

Adequately supporting and funding educational environments that incorporate trauma-informed practices (TIP) can have lasting benefits for students, families, staff, and the entire community (Oehlberg, 2006). These practices often include building teacher awareness about the effects of trauma on student cognition and behavior, incorporating personal safety, trustworthiness, healthy collaboration, and student empowerment in an educational setting, and empowering teachers to understand their role in student wellbeing (Oehlberg, 2006). Trauma-informed practices extend into state-level policymaking to fund wraparound care services that include better diagnostic criteria and the development of empirically tested treatments and early-stage interventions.

Potential Benefits

A 2019 review of literature on trauma-informed practices found that school communities refer to various frameworks and interventions as trauma-informed and that researchers have found some degree of effectiveness among most of them (Thomas et al., 2019), generally related to reductions in symptoms of toxic stress (e.g., Allison & Ferreira, 2017). The review also found that the localized nature of trauma-informed practices, the lack of rigorous and randomized studies, and the use of nonstandard effectiveness measures were barriers to determining effectiveness (Thomas et al., 2019). Despite these challenges, a growing body of literature documents the physiological impacts of toxic stress on brain development and supports schools' comprehensive approaches to interrupting toxic stress to improve student learning outcomes and behaviors inside the classroom (e.g., Center on the Developing Child, n.d.). In addition, an administrative commitment to support the professional development of teachers and non-academic personnel, hiring more school psychologists and counselors, internal reviews of disciplinary policies, and incorporating a holistic wellness policy for students and staff alike may improve school climate (Oehlberg, 2008).

Potential Challenges

Schools may face challenges sustaining trauma-informed environments due to organizational change and staff transition from year to year. However, research suggests that supportive school environments will help retain teachers (Hughes, 2012; Walker, 2019). In the interim, a possible solution is hiring additional staff and personnel to augment clinical support and behavioral interventions outside of the classroom for some students. Given the prevalence of adversity in childhood, however, a core feature of a trauma-informed school environment is that all adults treat all children as if they have faced and continue to face stress and adversity in their daily lives.

Texas Education Code (TEC) §21.451 (2009) currently requires staff development on trauma-informed practices and makes provisions for trauma- and grief-informed practices following a disaster or emergency (Texas Education Agency [TEA], 2020). This existing legislature frames much of what pertains to schools as a reaction to a wide-scale disaster in a community or mental health services for individuals who are already in crisis (TEA, 2020). However, relying solely on mental health services outside of the classroom is not sufficient for the needs of the many Texas children. Depending on a district's specific circumstances, mental health services may be costly or require medical diagnoses (Blodgett & Dorado, 2016). In addition, identifying the individual children in adverse situations may be difficult due to privacy concerns or parental consent rules. By contrast, school-wide interventions may be more practical and cost-effective. Implementing a school-wide approach may have the added benefit of allowing teachers and students, including those with few or no ACEs, to develop the

resilience and social-emotional competence to handle ordinary stressors and second-hand trauma successfully (Blodgett & Dorado, 2016).

Example Legislation for Supporting Trauma-Informed School Environments

Louisiana: School Employee Training. Enacted in 2021, Louisiana S.B. 211 (2021) requires the Louisiana State Board of Education to consult with the Louisiana Department of Health to develop and adopt guidelines for in-service training in recognizing the signs and symptoms of ACEs and the utilization of trauma-informed educational practices to address student needs resulting from these experiences.

Illinois: Community Health Worker Certification and Reimbursement. Illinois H.B. 0158 (2021) requires daycare directors and staff to participate in at least one training that includes the topics of early childhood social and emotional learning, infant and early childhood mental health, early childhood trauma, or ACEs, at least once every three years.

Iowa: School Employee Suicide Awareness Training. Iowa Senate File (S.F.) 2113 (2018) requires annual school employee training and protocols relating to suicide prevention, the identification of ACEs, and strategies to mitigate the toxic stress response.

Maryland: Trauma-Informed Education Guidelines. Enacted in 2020, Maryland H.B. 277 (2020) requires the State Department of Education to develop guidelines on trauma-informed approaches and requires the Department to make the guidance available to school districts.

Tennessee: Adverse Childhood Experiences Training. Enacted in 2018, Tennessee S.B. 1386 (2018) required the Department of Education to develop and provide an evidence-based training program on ACEs and trauma-informed practices for school leaders and teachers.

California: Trauma-Informed Practices Survey. California S.B. 130 (2022), enacted in 2022, provided $6 million to the Department of Education to a) help local educational agencies understand and utilize the California School Climate, Health, and Learning Surveys data and b) develop a new trauma-informed practice survey module that would assess the impact of community trauma on students.

Implications for Policy

The results of our review suggest that trauma-informed school environments are the most common school-based policy option for ACEs mitigation nationally. These practices have a growing research base showing direct impact on students (Thomas et al., 2019). Developing and sustaining trauma-informed school environments requires (a) supporting school personnel to build their awareness and understanding of the significance of stress, ACEs, and trauma in children's lives, (b) adopting trauma-sensitive discipline policies, and (c) collaborating with trauma-informed mental health specialists (Oehlberg, 2008). Consequently, trauma-informed school practices are compatible with many of the other school-based policies represented in this brief, including community schools and limiting exclusionary discipline policies. While Texas legislators may be able to provide guidelines, funding, and infrastructure to support these policies, Texas is a very diverse state with varying

community needs, and control of the implementation and oversight of trauma-informed practices should remain with local school districts.

Conclusion

In the wake of the COVID-19 pandemic, policy development to address ACEs is more important than ever. Even pre-pandemic, the prevalence of ACEs across the U.S. and in Texas had already been studied, revealing the serious consequences of toxic stress. ACEs affect Texans across party lines, socioeconomic groups, class, and race. Over the last decade, state legislatures across the United States have begun the enormous job of creating policies that offset, mitigate, and prevent the consequences of toxic stress for individuals, economies, and communities. Given that schools are one of the strongest touchpoints for students and families in Texas, it makes sense to connect a portion of the ACEs prevention and mitigation policy specifically to schools. The nature of childhood experiences makes preventing and mitigating the effects of ACEs a cross-sector issue, however. Thus, while schools can be a powerful arbiter for initial identification and addressing harm, a comprehensive, state-level strategy must involve various community actors. Ultimately, if the state addresses ACEs and toxic stress now, Texans will have brighter futures tomorrow: better health outcomes, financial savings, increases in academic achievement, and more connected communities.

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