

A Case Study of Building Strong Brains Tennessee: An Initiative to Address Adverse Childhood Experiences and Become a Trauma-Informed State

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Executive Summary

Adverse childhood experiences (ACEs) can have a significant impact on a person's life, including on their health and well-being into adulthood. Interest in preventing and addressing the consequences of ACEs has grown across sectors and is shaping policy discussions among state and local leaders who are eager to build capacity to support effective prevention and intervention. Building Strong Brains Tennessee (BSBTN) is a public/private partnership established to prevent and mitigate the impacts of ACEs for all Tennesseans and to promote statewide economic development and prosperity. BSBTN is jointly led by the executive, legislative, and judicial branches of state government and mobilizes knowledge derived from the science of brain development and communication science.

The National Governors Association Center for Best Practices (NGA Center), in partnership with the Duke-Margolis Center for Health Policy (Duke-Margolis), have established a 5-state learning collaborative on ACEs. In this case study, NGA Center, Duke-Margolis and a former Tennessee leader highlight BSBTN and its key elements of success as one model from which other states can learn. Success of the initiative can be attributed to the widespread commitment to address, prevent, and educate throughout the state about the long-term impact of ACEs. The following factors are critical to the success of BSBTN:

- ▶ **Champions across the three branches of government, among foundations and within the community.** Strong leaders at every level embedded the mission of BSBTN in public remarks, policy discussions and in the community.
- ▶ **Public/Private Collaboration.** The public/private relationships that serve as the foundation for BSBTN's structure has assured local solutions are being developed to address community issues.
- ▶ **Empowering Communities to Act.** Communities—fundamental to the success of BSBTN—were prepared and supported by the three branches to act and innovate.
- ▶ **Focus on Creating Culture Change.** Transforming thinking and actions across all functions of society led to culture change, emphasizing making changes in an individual or groups' own sphere of influence.
- ▶ **Evidence-Informed Messaging.** Extensive use of research-tested terminology and methods of communication permitted common understandings of the mission and expectations for culture change. BSBTN also periodically assessed what works and refined their approach knowing culture change is not a sprint but a marathon.
- ▶ **Sustainable Resources.** Financial, in kind, and programmatic supports across government and from key partners helped get the initiative off the ground and maintain ongoing work. Approaches to assure sustainability both with and without dedicated fiscal resources were critical to facilitating future work.

Introduction

Adverse childhood experiences (ACEs), such as physical and emotional abuse or neglect, or domestic violence, can have a significant and sustained impact on a person's life expectancy and overall health and well-being.¹ A milestone 1995 study conducted by the Centers for Disease Control and Prevention (CDC) and Kaiser Permanente found a strong correlation between a high number of ACEs and increased likelihood of poor health outcomes as an adult, as well as having a negative impact on academic achievement, time away from work, and early death.² CDC estimates that "61% of adults had at least one ACE and 16% had 4 or more ACEs."³

Interest in preventing and addressing the consequences of ACEs has grown across sectors. That interest is increasingly shaping policy discussions among state and local leaders who are eager to build capacity to support effective prevention and intervention. This interest in ACEs, alongside state work on addressing the needs of the whole family through multi-generation approaches and state implementation of the Family First Prevention Services Act, has increased interest in social emotional learning and trauma-informed schools. Action to address families impacted by the opioid crisis is also building a groundswell of support to move state policy, programming, and funding toward concrete solutions.

The long-term impact of ACEs and trauma on health and behavior is an issue gaining increasing recognition among state policymakers. The National Governors Association Center for Best Practices, in partnership with the Duke-Margolis Center for Health Policy and a former leader in Tennessee's strategic implementation of Building Strong Brains Tennessee, are currently working with five states — **Delaware, Maryland, Pennsylvania, Virginia, and Wyoming** — to develop sustainable state-level strategies to prevent and mitigate childhood traumas associated with ACEs. The project features [Building Strong Brains Tennessee](#) (originally known as the Building Strong Brains Initiative) as a leading example of a statewide intervention to achieve a sustained culture change through implementing a philosophy, policies, programs, and practices aimed at preventing ACEs and changing the course of childhood trauma.

Building Strong Brains Tennessee (BSBTN) is a public/private partnership that was established to prevent and mitigate the impacts of ACEs for all Tennesseans and to promote statewide economic development and prosperity. BSBTN is jointly led by the executive, legislative, and judicial branches of state government and mobilizes knowledge derived from the science of brain development and communication science, often referred to by Tennessee as a three-branch, two-science approach. BSBTN sought to achieve culture change across all sectors and across all levels of government and community, emphasizing the importance of taking ownership over an individual's or group's own sphere of influence (Figure 1). The initiative was built upon a three-pronged philosophy:

- ▶ Investments in childhood can produce long-term improvements in the cognitive and social development of children. This investment is important to building healthy, strong future generations and citizens.
- ▶ BSBTN's goal is to make sure all Tennessee children have what they need to thrive.
- ▶ Understanding how the future prosperity of Tennessee depends on building strong brain architecture in early years has crystallized in a way that makes it imperative to act.⁴

BSBTN introduced the [Brain Architecture analogy](#) to the public, which explains the idea that the basic architecture of the human brain is constructed through an ongoing process that begins before birth and continues into adulthood. Like the construction of a home, the building process begins with laying the foundation, framing the rooms and wiring the electrical system in a predictable sequence. Early experiences shape how the brain is built, establishing either a sturdy or a fragile foundation for the development and behavior that follows, and establishing a strong foundation early on is easier than addressing issues later in life. This metaphor articulates values important to Tennesseans, including future prosperity and success, described effects of trauma and roles of communities in building resilience, and includes a call for change in the culture. It provides common language stakeholders can use when communicating about ACEs, trauma, and healthy social/emotional and physical development.

Figure 1: BSBTN Elements of Culture Change

PREVENTION, MITIGATION AND TREATMENT OF ADVERSE CHILDHOOD EXPERIENCES
ANTICIPATED MULTI-SECTOR, MULTI-LEVEL PUBLIC AND PRIVATE IMPACTS

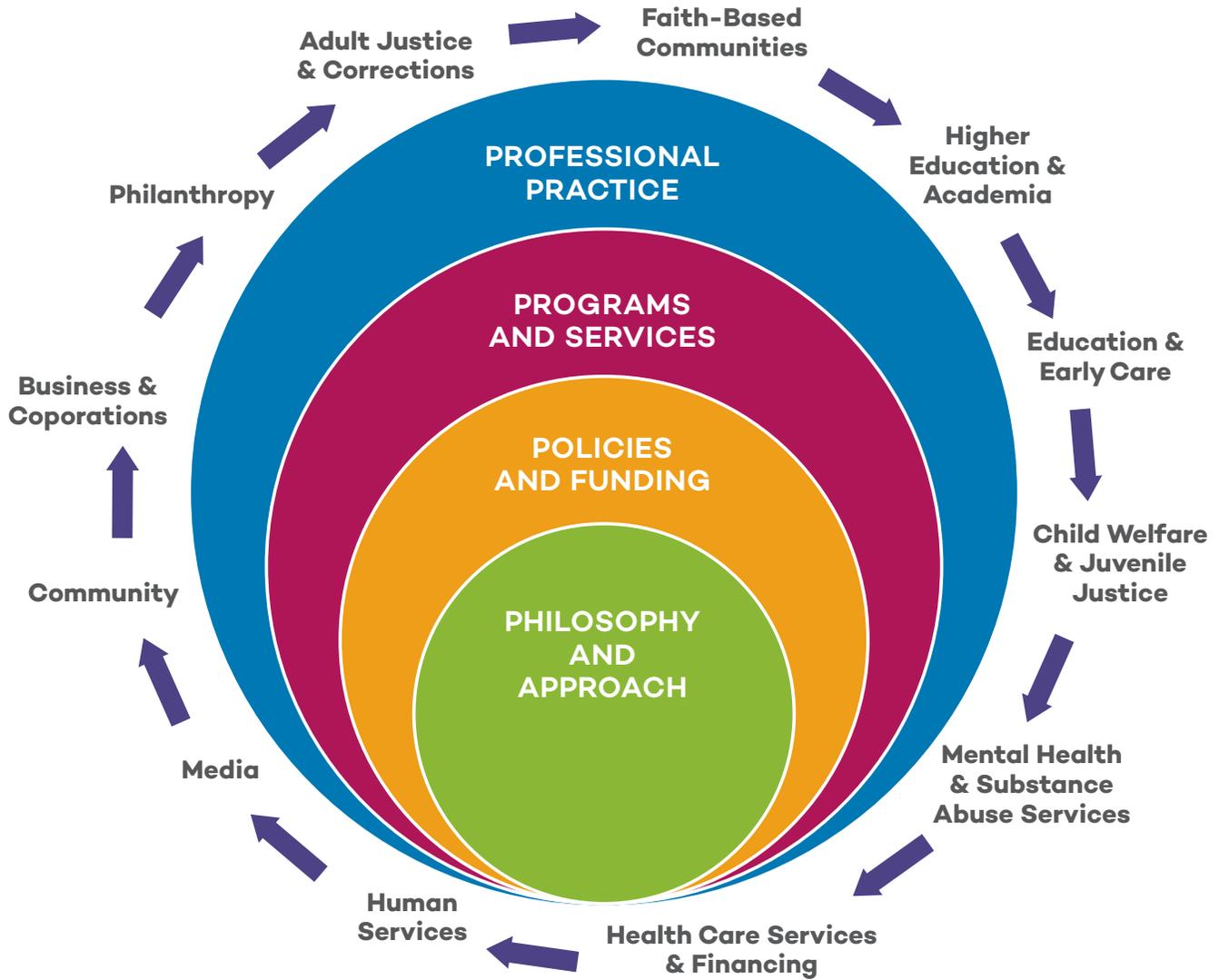


Figure 1 demonstrates the framework BSBTN's coordinating team developed, which recognizes all stakeholders' and sectors' capacities for strategic transformation within their own spheres of influence. BSBTN sought to achieve culture change through transformation in prevention, mitigation, and treatment of ACEs at four levels, referred to as "the 4Ps."

Governance and Infrastructure

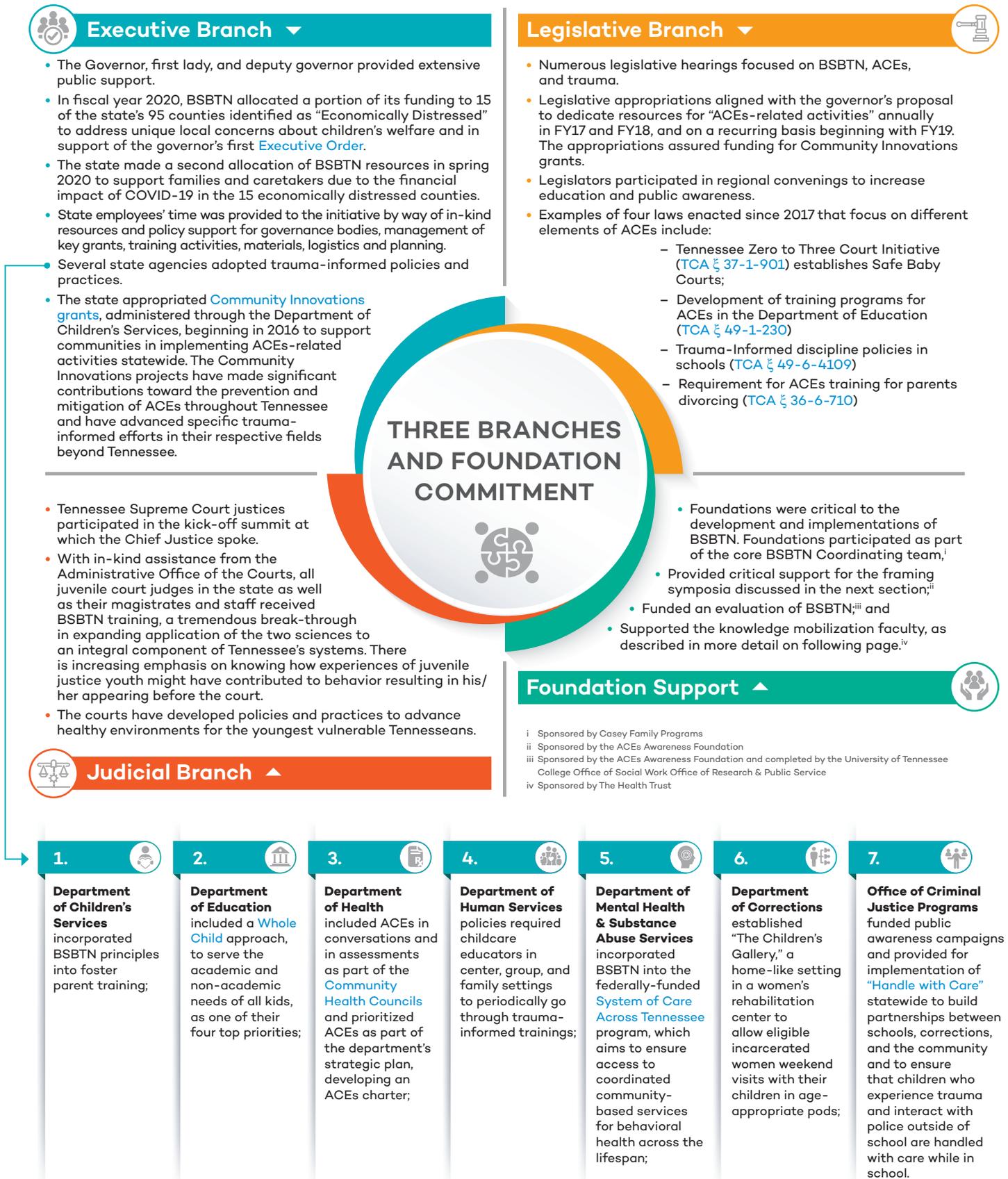
Critical to the success of BSBTN is a strong governance and infrastructure model that relies on all three branches of government, as well as key stakeholders in the community. The three branches institute (now dormant), a public and a private-sector steering group, and a small coordinating team helped to guide the collective efforts of BSBTN in the state (Figure 2). The steering groups met individually and jointly, emphasizing how public/private partnerships are foundational to BSBTN.

Figure 2: BSBTN's Governance Structure

Group	Three Branches Institute	Public Sector Steering Group	Private Sector Steering Group	Coordinating Team
Membership	Executive branch child-serving departments— Children Services, Health, Education, Human Services, Mental Health & Substance Abuse—plus Children’s Cabinet, Commission on Children and Youth, TennCare plus Labor and Workforce Development, Department of Corrections, TN Bureau of Investigation, and Administrative Office of the Courts	Comprised of ranking staff of the Departments of Children’s Services, Education, Health, Human Services, Intellectual & Developmental Disabilities, Mental Health & Substance Abuse, Office of Criminal Justice Programs, Commission on Children & Youth, and University of TN Extension Services	Comprised of providers, trade associations, community organizations, advocates, foundations, policy researchers, medical society, hospitals, chamber of commerce, and clergy	Comprised of ranking staff of the Departments of Children’s Services, Health, Education, Human Services, and Tennessee Commission on Children and Youth, plus three representatives of the private sector (two of whom co-chair the Private Sector Steering Group) and two foundations
Function	The oversight body to which BSBTN is held accountable, has to gain consensus from on priorities, and which has to approve activities and use of funds	Guides state efforts to implement state-level policy and program approaches to prevent and mitigate ACEs, coordinate interagency ACEs-related activities, and build on work already occurring in state agencies	Serve as extenders of BSBTN’s mission and as implementers of ACEs-informed strategies within their organizations, regions, and local communities	Provides overall guidance, input, and administrative oversight of BSBTN. Relies on input from the Steering Groups to share knowledge
Engagement Model	Collective impact. Met quarterly 2011-2019, now dormant	Consensus model. Convenes individually and jointly with the Private Sector Steering Group on a quarterly basis	Consensus model. Convenes individually and jointly with the Public Sector Steering Group on a quarterly basis	Meets weekly to set a course of action

The executive, legislative, and judicial branches provided strong in-kind as well as programmatic and policy support for the three branches institute and for BSBTN (Figure 3).

Figure 3: Three Branches and Foundation Commitment



Turning Knowledge into Action

BSBTN engaged in what came to be known as knowledge mobilization to implement the idea that knowledge must be put into action within one's respective environments and roles. The Building Strong Brains Initiative kick off Summit focused on exposure to the two sciences and was attended by state and local government officials, community leaders, legislators, judges, philanthropists, educators, academics, professionals, trade organizations, clergy, and media. An early priority for BSBTN was the use of evidence-based communication to create a common language and a common lens through which to discuss and view child development. This first influential step created an understanding of the potential harmful effects of trauma on brain development. The next step was the widespread adoption of the two-sciences approach to addressing, preventing, and mitigating ACEs, building resilience, and being trauma informed.

AN EARLY PRIORITY FOR BSBTN WAS THE USE OF EVIDENCE-BASED COMMUNICATION TO CREATE A COMMON LANGUAGE AND A COMMON LENS THROUGH WHICH TO DISCUSS AND VIEW CHILD DEVELOPMENT.

Seminal components of the knowledge mobilization path included building scientific and policy understanding through three scientific symposia, learning how to apply communications to brain science through four convenings hosted by the FrameWorks Institute, widespread training, and subsequently building and sustaining grassroots momentum through localized knowledge mobilization teams.

Build Scientific and Policy Understanding

BSBTN hosted three scientific symposia focused on the science of biology/physical science, programmatic innovations; and policy innovations (see recordings from Symposium 2 [here](#)). Experts from across the U.S. and Canada shared information on topics that informed Tennessee's direction and actions. The sequence of applying communication science in each of the symposia strengthened the case for using a common language.

Learn How to Apply Communication to Brain Science

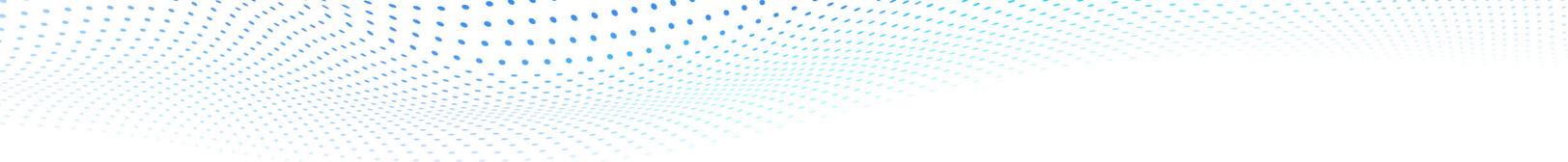
BSBTN partnered with the [FrameWorks Institute](#), an interdisciplinary team of social scientists, linguists, and communications practitioners who work with advocates, policy makers, funders, and others to frame complicated social and scientific issues in understandable, actionable terms. In collaboration with this group, BSBTN and FrameWorks hosted four convenings of individuals from all sectors and professional disciplines to learn how to apply communication tools to brain science to understand why it is important to invest in early childhood, youth, and young adults. After intensive, interactive training, participants practiced for about a month using the structure of the story arc for all relevant communications within their respective spheres. The [story arc](#) structure consists of values and metaphors to describe the topic and problem, and a description of the solution. After this period, the group reconvened to learn about infant mental health and practice framing information for social media communications.

Implement Widespread Training

Creating public awareness of the impact of ACEs has been a major goal of BSBTN since the program's inception. Training has been essential in making sure this information is shared statewide and at the grassroots level. Three principal strategies have been deployed to train across the state.

Train the Trainer: Using materials developed in conjunction with the [Harvard Center for the Developing Child](#) and with leadership from the Tennessee Commission on Children and Youth, individuals from diverse professional disciplines and sectors were trained on brain development, trauma-responsiveness, ACEs prevention, mitigation, and skill building for the public. According to state records, over 1,180 trainers have trained over 80,000 people statewide. To achieve fidelity to the model and to continually improve quality, the Tennessee Commission on Children and Youth has established a virtual learning collaborative that serves as a platform for trained individuals to request and share information and resources, as well as track trainings provided.

Training Educators and Administrators: The Department of Education trained over 7,000 educators and administrators during the first two years of the program (roughly 7.5% of all educators in the state). Due to widespread interest, the model was restructured to develop in-school expertise. As a result, 71 of the 150+



schools that applied were selected and became certified as trauma-informed schools. Completion of that curriculum meant the school had the capacity to train all staff, including support staff, in how best to interact with and respond to students in constructive ways. The model was enhanced to engage entire school systems in trauma training in support of the [CDC Whole School, Whole Community, Whole Child Model](#).

Public Awareness: BSBTN and the Office of Criminal Justice Programs combined resources to fund a six-episode series on public television, [Building Strong Brains—The Tennessee Story](#), that was made available to all public television stations in the state. Eight brief educational segments and four public service announcements were created from the original series.

Beginning in spring of 2019, the Tennessee Commission on Children and Youth spearheaded a social media campaign to extend the reach of public awareness efforts with support from FrameWorks (recent posts can be found on social media with the #BSBTN hashtag). Leveraging existing networks with thousands of representatives, the campaign sought to engage the community at large, provide opportunities to disseminate information, and support the creation of a trauma-informed culture in the state.

Build and Sustain Grassroots Momentum

Knowledge Mobilization Teams throughout the state (facilitated by Regional Coordinators of the Tennessee Commission on Children and Youth) enact strategies to address ACEs and build upon local insights, assets, and challenges to build community awareness and action. Regional Coordinators convene cross agency collaborations; familiarize local leaders w/ ACEs-related activities; provide information to local media; and make presentations and public awareness materials broadly available. The approach has contributed to continued grassroots support for BSBTN's mission as COVID-19 has limited the resources available for direct interaction.

During the first three years of BSBTN, the Department of Children's Services competitively awarded 35 Community Innovation grants. The grants reflect an interdisciplinary effort informed by the BSBTN Coordinating Team. Applicants had to provide evidence of a deep understanding of the two sciences, demonstrate their proposal was appropriate for the community or venue, use an evidence-based or promising practice or have a strong theory of change, and address equity, inclusion, and other indicators of cultural competence. Since the first year, priorities for proposals have remained true to the initial requirements, yet have evolved alongside contemporary issues and the capacities of communities, priorities of the administration, and the availability of funding.

Conclusion

Interest in preventing and addressing the consequences of ACEs has burgeoned across health, behavioral health, education, and human service sectors. That interest is increasingly shaping policy discussions among state and local leaders eager to build capacity to support effective prevention and intervention. This interest in ACEs has created an opportune moment to move state policy, program, and funding approaches toward real solutions—especially when combined with state work on addressing the whole family through two- or multi-generation approaches, state implementation of the Family First Prevention Services Act, increased interest in social emotional learning and trauma informed schools, and efforts to help families impacted by the opioid crisis.

A number of factors contributed to Tennessee's three branches and stakeholder investment on ACEs. Strong leaders at every level embedded the mission of BSBTN in public remarks, policy discussions, and in their communities. The public/private relationship that serves as the foundation for BSBTN's structure has assured local solutions are developed to solve specific community issues. Extensive use of research-tested terminology and methods of communication permitted common understanding of mission and expectations for culture change. Financial investments from foundations, state appropriations, and in-kind and programmatic support were essential. Further, the state developed approaches to assure sustainability both with and without dedicated fiscal resources through policy and collaborations, among other strategies.

The COVID-19 pandemic may be increasing ACEs and trauma and demonstrates the importance of responding to them at the state level. It is important to address conditions that contribute to stress and trauma including racism, poverty, and bullying, which were not included in the original set of conditions defined as ACEs but have since been validated as expanded ACEs. State leaders should not lose sight of the fact that experiences of trauma are pervasive in society, yet it is critical to focus on strategies to build individual and collective resilience and resilient communities.

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