EARLY CHILDHOOD SCIENTIFIC COUNCIL ON EQUITY AND THE ENVIRONMENT

From Resources to Routines: The Importance of Stability in the Developmental Environment

WORKING PAPER 4

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The Early Childhood Scientific Council on Equity and the Environment, housed at the Center on the Developing Child at Harvard University, is a multidisciplinary, cross-organizational collaboration committed to improving our understanding of how influences from the broader environment affect early childhood development. Established in 2023, the Council aims to leverage both scientific and community-informed perspectives to help policymakers and leaders across a range of sectors understand and mobilize around a prenatal and early childhood perspective that is rooted in working toward fairness of place for all children, with particular attention to communities of color and people living in poverty. For more information, go to www.developingchild.harvard.edu.

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When quoting and referencing sources directly, the source terminology remains unaltered for clarity, though we acknowledge the existence of more contemporarily inclusive terms. Despite terminology differences, the information in the source remains pertinent and applicable.

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Stability Supports Early Childhood Development and Lifelong Health

This working paper from the Early Childhood Scientific Council on Equity and the Environment explores how stability shapes children's health and development. It offers strategies for policymakers, community leaders, service providers, and others to increase stability, as well as practical recommendations for developing more resilient systems that support young children and their caregivers.

When we design policies and programs that prioritize what young children need to thrive, everyone benefits. By creating environments rich with beneficial influences—including things like reliable access to nutritious foods, affordable housing options, safe green space to play, and ample economic opportunity—we can promote the lifelong health and well-being of our children, along with their caregivers. These factors—along with influences from all the people in a child's social environment, including families, teachers, and peers—can help promote the healthy development of the brain and other key systems in the body, including the immune, cardiovascular, and metabolic systems. While we know that stability in children's environments is critical for their healthy development, the impact of *instability* in any of these areas is a powerful yet underrecognized disruptor of healthy development. And, instability can affect health and well-being not only during childhood, but across the lifespan.

Stability is particularly important during pregnancy and for babies and young children, when children's brains and bodies are rapidly developing and therefore especially sensitive to influences in their developmental environment[1] —the full range of experiences and exposures where they live, grow, play, and learn.[2] This interconnected web of influences affects our children and their caregivers, and it is shaped by all the decisions we make as a society, including decisions in policy realms that at first glance might seem far removed from young children—for example, zoning laws, housing codes, or urban planning. Over time, these decisions have created an unfair distribution of both adversity and opportunity across communities, with some ZIP codes benefiting more than others.[3]

The Interconnected Web of Stability

The idea of stability as a web made up of many different threads—including everything from a steady income, to food security, to responsive relationships—draws on a model first developed and described by a project from the Urban Institute: Stabilizing Children's Lives—a Web of Stabilizing Supports. This model, which stems from a related paper—Stabilizing Children's Lives—Insights for Research and Action—emphasizes a range of elements that can shape a sense of stability in a child's environment, and underscores how each thread can affect the others in both beneficial and harmful ways. We draw on this model throughout this paper as it illustrates the interconnected—and sometimes fragile—set of factors that influence stability for young children and caregivers alike.

Any family can experience instability. However, instability is more likely to occur and to affect healthy development when a community lacks supportive services that can buffer its effects. A child's world can become unstable without warning, and often instability in one area is connected to instability in others—an unexpected drop in family income, for example, can lead to loss of housing, difficulty accessing nutritious food, and losing supportive relationships when families are forced to move.[4]

To help our children and communities thrive now and across generations, it is essential that we make policy decisions that preserve and enhance stability for children and their caregivers across all these interconnected areas.

Stability and Predictability in Caregiver Responses

Beginning before birth, children's brains and bodies develop in response to patterns they experience in their developmental environment. For the brain and other biological systems, these patterns serve as information about what to expect in the environment going forward. They spark brain circuits to form and become more efficient with repeated use over time.[5] For example, babies' brains expect patterns of back-and-forth exchanges, or "serve and return" interactions with caregivers. Healthy development of the brain's formative neural circuits relies on these exchanges, so if they *don't* happen consistently and predictably, typical brain development can be interrupted. This can disrupt the foundation for language and emotional regulation skills, along with many other abilities that develop later.

Babies and young children also rely on their caregivers to protect them from harm, to show them what is dangerous and what is not, and to model the regulation of emotions. As children grow, this modeling lays the foundation for children to safely and independently navigate their environments and manage their own emotions.[6] Throughout early childhood, stable, responsive interactions with caregivers are essential for healthy development.

Stability vs. Predictability

Stability and predictability are closely related but distinct concepts. Stability refers to the presence of consistent resources, relationships, and supports in a child's developmental environment, in ways that meet their basic needs and support healthy development. Predictability relates to whether a child can anticipate or expect certain types of experiences in their day-to-day life, whether that comes in the form of daily routines or consistent responsiveness from a caregiver. When we create stability in a child's developmental environment, we set the stage for caregivers and other adults in a child's life to foster predictable routines and relationships. Conversely, unpredictability—such as losing access to food supplement programs or sudden displacement from extreme weather events—can undermine stability in a child's relationships and environment.

When Unpredictable Environments Disrupt Stability

If the expected patterns in a young child's life are frequently disrupted—particularly when the events and behaviors are threatening or associated with a lack of safety[6]—it can negatively affect development. In response to an unpredictable environment, children's bodies adapt in three ways. These responses can be protective in the short term, but harmful if they persist.[7]

Activation of the stress response system—For babies, unpredictability is a sign that their world may not be safe. Biologically, unpredictability sets off the release of stress hormones like cortisol and immune responses like inflammation throughout the body.[7] These responses help protect us from threats in the short term by allowing us to fight off infections or respond appropriately to stressful or dangerous situations, but in the long term, if not alleviated by responsive, stable relationships with adults, too much stress and inflammation from instability can damage the brain and other developing organ systems. In addition to negative impacts in childhood, which can include altered brain architecture and challenges with learning and behavior, this prolonged activation increases the risk of a range of chronic diseases, such as cardiovascular disease, cancer, anxiety, and depression across the lifespan.[1]

Hypervigilance to threat—When unpredictable environments are encountered repeatedly in early childhood, the brain circuits that detect and respond to fear are used more frequently, so they become stronger and develop more rapidly. In the short term, these stronger circuits can help us respond quickly to an unpredictable environment, which can be important for handling real threats to our safety or well-being. But, over time, this frequent and rapid activation can make these circuits overactive, leading to a false sense of threat even in neutral situations, with responses that are more quick or intense than a situation warrants. Children who develop this tendency have a decreased ability to control their emotions and behavior, and it is more difficult for them to tell a real threat from a perceived one. This can lead to challenges for children in regulating their emotions and behaviors at home, in preschool and school, and with their peers. Children who have developed this type of hypervigilance may find it more difficult to navigate situations that are typical in these settings and others, including moderating disagreements with peers or handling disappointment or frustration.[7,8] While these challenges begin in childhood, difficulties with handling disagreements or emotional regulation can persist into adulthood.

Accelerated puberty—When young children perceive the environment as harsh and unpredictable, the resulting stress can be one of many factors that lead to early puberty.[7] For our species to survive in a chaotic world, early pubertal development and early onset of sex behaviors would have once been beneficial. But in our current world, early puberty can lead to increased risk of some types of cancers and type 2 diabetes, obesity, shortened adult height, and early menopause, as well as a range of adverse mental health disorders, such as anxiety and depression.[9] In contrast, when the environment is perceived as safe and predictable, children's bodies are more likely to adopt healthier long-term strategies, such as pubertal development in the expected timeframe, later reproduction, and longer lives.[7]

Creating Stability Through Routines

Children thrive on routines, beginning very early in life.[10] Predictable schedules for things like naps, meals, and bedtimes help organize babies' daily biological rhythms, which lay the foundation for higher-level learning as well as physical health.[11] As one example, sleep is critically important for babies and young children and is deeply affected by routines. Sleep is essential for children's physical and mental health, social and emotional development, and learning, and regular sleep patterns affect health in childhood and across the lifespan. Disruptions in maternal sleep schedules during pregnancy can lead to slower brain development in newborns.[12] Instability in the lives of expectant parents, whether it be through unpredictable work schedules or disruptions in a consistent, safe place to sleep because of evacuations from extreme weather events, may make consistent sleep schedules during pregnancy challenging, which can disrupt fetal development.[13,14,15] Children who nap consistently also remember more new words and have improved emotional memory and reactivity compared with children who do not.[16] Stable and consistent routines around naps in infancy and early childhood can promote good daytime sleep in young children, while a lack of predictable and consistent routines can make napping more challenging or less likely to occur. Regular sleep patterns affect health in childhood and across the lifespan. For example, in one study, a lack of sleep routines at age three was associated with higher body fat eight years later.[17] Stable sleep routines are essential for healthy development, as are predictable routines throughout a young child's environment. When instability occurs repeatedly in a child's developmental environment, it can lead to disruptions in sleep that negatively affect health and well-being. Beyond sleep, instability can also disrupt many beneficial aspects of daily routines for both children and caregivers, including meals, bathtime, and childcare and work schedules. Policies and programs that support caregivers in maintaining these types of stable routines can have an outsized impact on children's development and health.

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The Beneficial Balance of Stability and Novelty

It's important to note that, while stability and predictability promote healthy child development and can help build resilience in the face of adversity,[18] a manageable amount of unpredictability can be beneficial. For example, moving to a neighborhood with more access to high-quality education, medical care, or increased green space; switching to a higher-quality childcare provider; divorcing an abusive spouse; changing jobs to attain a higher income—these are all changes that may disrupt a child's stability in the short term, but, with the consistent support of adults, can ultimately be beneficial.[17] Novel experiences are also key to learning, fostering curiosity, mastering new skills, and developing motivation. Babies naturally gravitate toward new objects and events, and away from objects that are overly familiar, but they also shy away from new ones that are too complex.[19]

Therefore, it's important that young

children have a *balance* of opportunities to safely explore and adapt within a context of overall stability. While caregivers often play a central role in creating this balance for babies and very young children, their ability to foster such balance can be supported or constrained by many forces around them, from their economic prospects to the availability (or lack) of supportive services and conditions in their community. For example, consider the everyday occurrence of a child exploring a new playground. Conquering a new, higher slide or climbing a ladder may be daunting—a child might stumble or even fall. But, with support from an attentive caregiver, they can recover and gain critical skills in the process—not just motor skills, but also confidence and curiosity to tackle the next playground challenge. And, while this may be an everyday occurrence in many of our communities, the picture is more complex than it appears. This type of essential, everyday exploration exists within the broader web of influences in a child's developmental environment. It requires an attentive, responsive caregiver, emphasizing the importance of policies and programs that support caregivers during times of stress and foster their own stability. It requires a neighborhood where investments have been made in creating and maintaining safe, accessible spaces to play. Ultimately, it requires a system where we design our communities through policies and programs that promote opportunity and help our children to thrive.

How Different Types of Stability Interconnect

Stability for families and caregivers relies on an interconnected web of supports, such as safe housing, job security, quality childcare and schools, accessible health care, dependable social support networks, and the availability of clean air, unpolluted water, livable temperatures, and nutritious food. If one thread of that web breaks, it often leads to strains on the other threads. Losing a job or housing, for example, can lead to disruptions in other areas, such as the ability to access high-quality childcare or health care.[4]

Instability in one area of a child's life can easily cross over into other areas, compounding stress for both children and their caregivers. For example, incarceration or sudden deportation of a parent are well-established as stressful to children in their own right, but they can also destabilize consistent caregiving and routines that are critical to children's healthy development, and they can lead to changes in schools and community networks that provide social support.[20] Children in foster care may experience multiple placements, leading to frequent changes in neighborhoods and schools.[20] And children who are displaced by extreme weather events—including wildfires, hurricanes, and floods, which have become more frequent in our warming world—can face extended disruption of community supports and routines, as well as the loss of their home or loved ones. The common attribute of all of these disruptions is that they cannot be anticipated or foreseen with certainty and are typically out of an individual's control.[18] The cumulative effects of changes that cascade through these interconnected domains are likely to be more harmful than any single type of instability alone.[17]

As we think about designing policies and programs to support young children and their caregivers, it is critical that we look broadly across sectors—just as one broken thread can strain the others in this web, strengthening one strand helps hold the web together. For example, if policies incentivize employers to allow parents to

work predictable hours with flexible time off to care for children, offer paid parental leave, and support access to reliable health care, businesses will benefit with a more stable workforce and higher productivity. Caregivers and families will have a reduced burden of stress and improved stability in their children's lives,[18] and education systems will see fewer absences (and fewer children attending school while ill) and behavior challenges.[18]

Financial stability—Fluctuations in family income are common—whether due to changes in employment, moving, divorce, or macroeconomic forces like a recession, pandemic, or extreme weather event. Job changes alone do not cause poor outcomes for children, but if unpredictable or forced, they can lead to unemployment, lower income, or the need for multiple part-time jobs that can disrupt family routines.[4] A multitude of systemic factors can make it challenging for many caregivers to maintain financial stability. Historic and current policies have also put Black, Latine, and other communities of color at an economic disadvantage as compared to White communities. These communities frequently confront a spectrum of structural, political, social, and economic barriers that have restricted access to essential resources. As a result, caregivers of color often experience greater challenges in achieving financial stability.

In the US, up to 10% of parents work in low-income jobs that include schedules that can change on a daily or weekly basis, such as changes to shift timing that occur with little notice.[18] This work-related unpredictability can result in other forms of instability for children, including inconsistent childcare and greater volatility in family income, food, and resources. Studies of "Fair Workweek" laws that require predictable schedules show many positive downstream effects, including improvements in worker productivity and sales, parental sleep quality and mental health, childcare and income stability, and child emotional outcomes.[18,6]

Families that lack a financial safety net experience greater hardships than those that have accumulated savings or extended family with resources.[4] Further, while upward changes in income are associated with children's gains in expressive vocabulary, downward and fluctuating income is associated with declines in children's problem-solving abilities, and both can affect children's learning and cognition.[21] Policies that support financial stability—particularly in communities that have been marginalized and subject to significant underinvestment over time—can help ensure that children have the resources they need to support academic achievement as well as their physical and mental health.[22]

Policies that support financial stability—particularly in communities that have been marginalized over time—can help ensure that children have the resources they need to support academic achievement as well as physical and mental health.

Food security—Financial security is directly related to food security. In 2023, 6.5 million US households with children—nearly 18%—experienced food insecurity, defined as "reduced quality, variety, or desirability of diet" along with "disrupted eating patterns and reduced food intake."[23] Unstable access to nutritious food can have powerful impacts on children's learning and health. In elementary school, children experiencing food insecurity are more than twice as likely to repeat a grade than those who are food secure. Food insecurity is also linked to high rates of school absenteeism and with challenges in reading.[4] Additionally, food insecurity for girls in kindergarten has been linked to greater weight gain and

lower gains in math scores by third grade.[4]

Finally, safety net programs like Medicaid and the Supplemental Nutrition Assistance Program (SNAP) provide critical support for families experiencing unexpected financial challenges. However, disruptions in coverage by these programs are a significant cause of instability for children. Because of coverage gaps and changing eligibility requirements, families can lose access to essential services like health care and access to food support. And these gaps can have a significant effect on children. Children who move between being food secure and insecure have more challenges with academic performance and behavioral regulation than children with consistent access to food. Avoiding policies that tie service eligibility to characteristics that may be unstable (e.g., parental employment or residential status) would help children and families maintain access to needed services when life circumstances change.[20]

By designing and implementing policies that promote secure, consistent access to nutritious foods early in life, we can support the physical and mental health of our children—now and across the lifespan—including strong bones, healthy immune system development and function, and reduced risk of chronic conditions including cardiovascular disease and diabetes.

Foundational relationships—As discussed above, young children thrive in predictable settings with consistently available, supportive caregivers who respond to their individualized needs through "serve and return" interactions.[2] Responsive, attentive relationships with caring adults help build a strong foundation for a child's brain architecture and for all future health and well-being. When children have stability in their relationships with attentive caregivers, they grow in an environment rich in serve and return experiences and beneficial interactions that promote secure attachment and healthy development. Infants and very young children are particularly sensitive to instability in relationships with their primary caregivers. When attentive caregiving is absent, or if its presence is unreliable or unpredictable, healthy brain development can be disrupted. If children face significant instability in other areas of their lives, stable relationships with

> **Infants and very young children are particularly sensitive to instability in relationships with their primary caregivers.**

responsive adults in their home, childcare, school, or other settings can help provide important elements of the safety and security that children need.[4] Studies have shown that consistently supportive child- and family-level routines can buffer children from the negative effects of bullying, the COVID-19 pandemic, and even witnessing domestic violence.[7, 24,25]

These relationships affect children's well-being in the moment, but also later in childhood. For example, studies have found that experiencing instability within a family in the first five years of life, including changes in who is living at home or changes in economic resources, can affect children's behavior, their relationships with their peers, and even their reports of loneliness in elementary school.[4] The sudden disruption of stable family relationships, for example, through forced separation from a parent due to deportation or incarceration, is linked to significant behavior challenges throughout childhood and adolescence.[6] For children in foster care, the more transitions and placements they experience—including the need to form new relationships each time—the more likely they are to have increased behavioral challenges.[26]

Stable relationships in childcare and school can also serve as "safe havens" for children experiencing difficulties

elsewhere in their lives.[20] In fact, childcare stability, or staying with the same provider, is associated with more secure attachment to the caregiver.[17] Unpredictability in childcare, including changes in caregiver arrangements or high caregiving staff turnover, is associated with behavioral problems in preschool-aged children.[6] Among young infants, unstable childcare can lead to poorer language development at 15 months and challenges with children's ability to follow directions at 2 years of age, while those who experience longer, more predictable stays in childcare settings tend to demonstrate improvements in language, literacy, and cognitive skills.[4] According to a 2024 report from the Center for the Study of Child Care Employment, early educators are paid less than 97% of other professional occupations, and wages for early educators are less than a living wage for a single adult with no children in every state, with 13.1% of early educators earning a salary that puts them below the federal poverty line.[27] On top of this, early educators are often not provided with benefits through their place of work, including health insurance and retirement plans. All of this speaks to the importance of designing childcare policies and programs with stability in mind, including ensuring that caregivers in these spaces receive the type of salary and benefits that support long-term retention.

These foundational relationships can provide critical support, but caregivers cannot do it alone—policy and program design that helps create stable environments for young children and caregivers alike is essential for healthy development.

Housing and neighborhoods—Moving to a new home or neighborhood is common, and while such moves can disrupt relationships and connections to jobs and services, these temporary disruptions can lead to positive outcomes for children if they ultimately improve the conditions in a child's developmental environment. However, abrupt, unexpected, and especially frequent moves are a source of instability and can affect young children and their caregivers, weakening their sense of security and elevating stress levels.[4]

For very young children whose language and reasoning skills are not fully developed, frequent residential moves can be confusing and stressful,[4] with potential consequences for school achievement as well as emotional well-being. Even later in childhood, researchers have found that changing K-12 schools frequently is associated with poorer performance in literacy and math. Additionally, mobility is associated with higher rates of not completing high school. And, the negative effects of moving increase with each additional move.[4]

When housing instability is combined with financial instability, families can lose their permanent housing altogether, a situation affecting at least 100,000 children in the US.[28] Instability appears to be a key factor in the adverse outcomes that children experience related to housing.[5] For example, among preschoolers experiencing homelessness, the number of residential transitions can affect both cognitive and socioemotional development even without other adverse childhood experiences.[6] Facing eviction itself can be disruptive: children whose caregivers face eviction cases are more likely to switch schools or districts, often relocating to schools with fewer resources, more student turnover, and lower test scores.[29] Students whose caregivers face eviction are absent more often and, among those who switch schools, have more suspensions.[29] This emphasizes the importance of designing policies and programs that address such sources of housing instability, knowing that stable housing offers a tremendous opportunity to help children thrive.

Climate change—Families are increasingly impacted by more frequent and severe extreme weather events caused by climate change, including wildfires, floods, hurricanes, heat waves, and

droughts. In addition to catastrophic loss of life, these events can lead to temporary or permanent loss of housing, economic hardship, food insecurity, and disruption of relationships—a prime example of how, in the web of interconnected factors that influence development, one unstable thread can strain the others.

Climate-driven disasters now force two to three million Americans to leave their homes every year. When Hurricane Helene struck North Carolina in 2024, the number of damaged or destroyed homes was estimated to be between 121,000 and 132,000.[29] One year later, around 1% of people in the western part of the state alone—as many as 12,000 people—had lost their homes or were believed to still be displaced.[30] Efforts to rebuild have been complicated by the fact that only 5.2% of the homes with flood damage had the needed property insurance to cover the cost of repairs or rebuilding.[28]

People who have been displaced by hurricanes, wildfires, floods, or other extreme weather events may experience a range of enduring mental health challenges—including stress disorders, anxiety, suicidality, and substance abuse—that are made worse by damage to homes and possessions, feelings of alienation, and breakdowns in social networks and job opportunities. In fact, the disruption of social connections is one of the most common stressors associated with climate-related relocation.[31] And, these events can create strain on the very systems designed to support people during these times. In North Carolina, after Hurricane Helene, Medicaid enrollment was forecast to increase by more than 2,000 adults and 11,000 children, meaning that, on top of rebuilding costs, $27 million in funding would be needed to cover much-needed services for its residents.[28]

In the US, climate change is also worsening existing inequalities across our communities. Families with lower incomes are less likely to be able to rebuild their homes after a disaster occurs, and they are also less able to afford protective factors that can help safeguard their homes. Families who rent are also at a disadvantage compared with families who own their homes and who can invest in hazard mitigation. Rental property owners, even when motivated to invest in protective measures for homes, may not regain those investments if properties are damaged. As a result of this and other factors (such as neighborhood density), it is more likely that rental properties, mobile or motor homes, and lower-value residences will be destroyed by a natural disaster. They are also less likely to be rebuilt, which can cause further disruption of social networks.[32]

Wildfires Affect Stability in Multiple Ways

As one example of climate-related instability, the number of housing units exposed to wildfires in the western US has more than doubled in the past two decades, with devastating and destabilizing impacts on affected communities, including children and their caregivers. For example, more than 19,000 structures were damaged by the 2018 Camp Fire in California, and only 643 had been rebuilt two years later. Lower-rent buildings that housed more residents with fewer economic resources were more likely to be destroyed in the fire and less likely to have been rebuilt.[32]

In 2023, thousands of people experienced instability when they were displaced by wildfires on the Hawaiian island of Maui. According to the Maui Emergency Management Agency report from April 2025, "Many households still struggle with increased rent costs, displacement, and instability. Nearly half of all respondents remain in temporary housing, with over a third living with friends and family, in temporary units without assistance, or unhoused."[33] In addition, economic insecurity has followed the fires, with many households facing rental costs more than 50% higher than before, while also finding fewer job opportunities—15% of people surveyed fell into poverty after the fires, and only 2 to 4% experienced enough improvement in their financial situation to move above the poverty line.[34]

In January 2025, wildfires burned 78 square miles and destroyed more than 16,000 buildings in the Los Angeles region, forcing 180,000 people to leave their homes, including children.[35] Nearly nine months after the fires, roughly 75% of residents surveyed from the Pacific Palisades and 67% of those surveyed from Altadena reported living in temporary housing.[36] Even residents whose homes were not destroyed have found it challenging to return. A *New York Times* review of toxicology studies for 56 homes that had not burned down found that nearly all had some level of toxic contamination by carcinogenic chemicals contained in wildfire smoke, such as lead, arsenic, and cyanide, rendering them unusable.[37] Among residents from Altadena, Pacific Palisades, Pasadena, and Malibu who lost their homes, 22% reported that they expected to move again within the next 6 to 12 months.[35]

For young children, this type of displacement can also lead to ongoing disruptions in their social environment, including the loss of stable childcare settings and relationships. And, in Los Angeles, 20% of households earning less than $100,000 annually have had to cut back on food, directly demonstrating how one thread of instability can destabilize many others.[35]

As these examples demonstrate, even children whose homes are not destroyed by extreme weather events like wildfires may still experience numerous types of instability, from housing displacement to economic hardship to school and community disruption, while also being exposed to environmental toxicants.[38,39]

What We Can Do to Create, Maintain, and Restore Stability

The decisions we make as voters, policymakers, community leaders, service providers, and business leaders all play important roles in creating and maintaining stability in children's lives. Even when stability has been derailed, ensuring we have policies and programs to restore it offers an opportunity to avoid or even reverse potential harm. Evidence shows that when children do encounter instability, stabilizing their situations leads to improvements in behavior as well as cognitive and emotional development.[17] This pattern is true across cultures,

urban and rural geographic areas, and socioeconomically diverse populations.[18]

Opportunities to improve stability in children's lives exist in policies at the local, state, and federal level related to education, health care, employment, immigration, child welfare, housing, food assistance, criminal justice, climate change, and more. Within the web of factors that support stability, each domain can have a multiplier effect on the others because of the interconnected nature of each thread—for example, stable health care also decreases parental stress and supports parental mental health, which helps them provide a more stable financial and emotional environment for children.[18] Reformed eviction regulations and improved supply of quality buildings can help ensure stability for children in housing, neighborhoods, and schools. Paid family leave policies can help ensure relationship stability in the critical early months after birth, reduce parental stress, and maintain income stability, which in turn promotes food security.[40]

Working together across sectors with a shared goal of increasing stability for children and their caregivers, we can have a broad range of positive impacts, including improved child health outcomes, greater school achievement, more stable income and housing, and lower health care costs from chronic disease. And, we can address the systemic inequalities that often lead to disproportionate sources of instability for children living in poverty and children of color. Providers across early care and education, health care and social services, along with employers, law enforcement, civic and faith organizations, and parents and caregivers all will benefit from improved stability for families *and* can take action to improve it.[41] In these and many other ways, we all have a role to play in creating and maintaining stable developmental environments where our children and their caregivers can thrive.

→ For examples of how communities are implementing strategies to foster stability for young children, see our related ***Solutions Spotlight.***

References

1. National Scientific Council on the Developing Child. Connecting the brain to the rest of the body: early childhood development and lifelong health are deeply intertwined: working paper no. 15. Published 2020. https://developingchild.harvard.edu/resources/working-paper/connecting-the-brain-to-the-rest-of-the-body-early-childhood-development-and-lifelong-health-are-deeply-intertwined/
2. Center on the Developing Child at Harvard University. Developmental environments. Published 2014. https://developingchild.harvard.edu/key-concept/developmental-environments/
3. Center on the Developing Child at Harvard University. What surrounds us shapes us: an expanded story of early childhood development. Published 2021. https://developingchild.harvard.edu/key-concepts/what-surrounds-us-shapes-us/
4. Sandstrom H, Huerta S. The negative effects of instability on child development: a research synthesis—low-income working families discussion paper no. 3. Urban Institute. Published 2013. https://www.urban.org/research/publication/negative-effects-instability-child-development-research-synthesis
5. Davis EP, Glynn LM. Annual research review: the power of predictability—patterns of signals in early life shape neurodevelopment and mental health trajectories. *J Child Psychol Psychiatry*. 2024;65(4):508-534. doi:10.1111/jcpp.13958
6. Gee DG, Cohodes EM. Caregiving influences on development: a sensitive period for biological embedding of predictability and safety cues. *Curr Dir Psychol Sci*. 2021;30(5):376-383. doi:10.1177/09637214211015673
7. Liu S, Franke P. Early experience unpredictability in child development as a model for understanding the impact of the COVID-19 pandemic: a translational neuroscience perspective. *Dev Cogn Neurosci*. 2022;54:101091. doi:10.1016/j.dcn.2022.101091
8. Dvir Y, Ford JD, Hill M, Frazier JA. Childhood maltreatment, emotional dysregulation, and psychiatric comorbidities. *Harv Rev Psychiatry*. 2014;22(3):149–161. doi:10.1097/HRP.0000000000000014
9. Sun Y, Li H, Mu C, Liu P, Hao C, Xin Y. Early puberty: a review on its role as a risk factor for metabolic and mental disorders. *Front Pediatr*. 2024;12:1326864. doi:10.3389/fped.2024.1326864
10. Selman SB, Dilworth-Bart JE. Routines and child development: a systematic review. *J Fam Theory Rev*. 2024;16(2):272-328. doi:10.1111/jftr.12549
11. Miike T. Appropriate lifelong circadian rhythms are established during infancy: a narrative review. *Clocks Sleep*. 2025;7(3):41. doi:10.3390/clockssleep7030041
12. Hoyniak CP, Wadhwa PD, Luby JL, et al. Sleep and circadian rhythms during pregnancy, social disadvantage, and alterations in brain development in neonates. *Dev Sci*. 2024;27(3):e13456. doi:10.1111/desc.13456
13. Chang JJ, Pien GW, Duntley SP, Macones GA. Sleep deprivation during pregnancy and maternal and fetal outcomes: is there a relationship? *Sleep Med Rev*. 2010;14(2):107-114. doi:10.1016/j.smrv.2009.05.001
14. DiTosto JD, Holder K, Soyemi E, Beestrum M, Yee LM. Housing instability and adverse perinatal outcomes: a systematic review. *Am J Obstet Gynecol MFM*. 2021;3(6):100477. doi:10.1016/j.ajogmf.2021.100477
15. Lugo-Candelas C, Hwei T, Lee S, et al. Prenatal sleep health and risk of offspring ADHD symptomatology and associated phenotypes: a prospective analysis of timing and sex differences in the ECHO cohort. *Lancet Reg Health Am*. 2023;27:100609. doi:10.1016/j.lana.2023.100609
16. Souabni M, Sadeh A, Salem A, et al. Napping and memory consolidation in early childhood: a systematic review and meta-analysis. *Sleep Med*. 2025;106:106649. doi:10.1016/j.sleep.2025.106649
17. Doan SN, Evans GW. Chaos and instability from birth to age three. Future of Children. 2020;30(2):93-113.
18. Glynn LM, Liu SR, Lucas CT, Davis EP. Leveraging the science of early life predictability to inform policies promoting child health. *Dev Cogn Neurosci*. 2024;69:101437. doi:10.1016/j.dcn.2024.101437
19. National Scientific Council on the Developing Child. Understanding motivation: building the brain architecture that supports learning, health, and community participation: working paper no. 14. Published 2018. https://developingchild.harvard.edu/resources/working-paper/understanding-motivation-building-the-brain-architecture-that-supports-learning-health-and-community-participation/
20. Doom JR, Han D, Rivera KM, Tseten T. Childhood unpredictability research within the developmental psychopathology framework: advances, implications, and future directions. *Dev Psychopathol*. 2024;36(5):2452-2463. doi:10.1017/S0954579424000610
21. Sosu EM, Schmidt P. Changes in cognitive outcomes in early childhood: the role of family income and volatility. *Front Psychol*. 2022;13:758082. doi:10.3389/fpsyg.2022.758082
22. Hardy B, Hill HD, Romich, J. Strengthening social programs to promote economic stability during childhood. *Soc Policy Rep*. 2019;32:1-36. doi:10.1002/sop2.4
23. US Department of Agriculture Economic Research Service. *Food Security in the United States: Key Statistics and Graphics*. Updated October 2024. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics#children
24. Hosokawa R, Tomozawa R, Katsura T. Associations between family routines, family relationships, and children's behavior. *J Child Fam Stud*. 2023;32:3988–3998. doi:10.1007/s10826-023-02687-w
25. Healy KL, Scott JG, Thomas HJ. The protective role of supportive relationships in mitigating bullying victimization and psychological distress in adolescents. *J Child Fam Stud*. 2024;33: 3211–3228.

doi:10.1007/s10826-024-02891-2

26. Rubin DM, O'Reilly ALR, Luan X, Localio AR. The impact of placement stability on behavioral well-being for children in foster care. *Pediatrics*. 2007;119(2):336-344. doi:10.1542/peds.2006-1995.
27. Center for the Study of Child Care Employment. Key findings—Early Childhood Workforce Index 2024. CSCCE, University of California, Berkeley. Published 2024. Accessed December 2025. https://cscce.berkeley.edu/workforce-index-2024/executive-summary/key-findings/
28. Lebrun-Harris LA, Sandel M, Sheward R, Poblacion A, Ettinger de Cuba S. Prevalence and correlates of unstable housing among US children. *JAMA Pediatr*. Published online May 20, 2024. doi:10.1001/jamapediatrics.2024.1159
29. Office of State Budget and Management. *Hurricane Helene DNA: Damage and Needs Assessment*. State of North Carolina. Published October 23, 2024. https://www.osbm.nc.gov/hurricane-helene-dna
30. Hurricane Helene one year later. NC Local. Published September 22, 2025. https://nclocal.org/2025/09/22/hurricane-helene-one-year-later/
31. Torres JM, Casey JA. The centrality of social ties to climate migration and mental health. *BMC Public Health*. 2017;17(1):600. doi:10.1186/s12889-017-4508-0.
32. McConnell K, Braneon CV. Post-wildfire neighborhood change: evidence from the 2018 Camp Fire. *Landsc Urban Plan*. 2024;247:104997. doi:10.1016/j.landurbplan.2023.104997
33. County of Maui Emergency Management Agency. *County of Maui 2025 Hazard Mitigation Plan*. Published August 2025. https://www.mauicounty.gov/DocumentCenter/View/152917/2025-Hazard-Mitigation-Plan-Draft-for-Public-Review
34. University of Hawai'i Economic Research Organization. Maui's recovery: 1½ years after the wildfires. Published 2024. https://uhero.hawaii.edu/mauis-recovery-1%c2%bd-years-after-the-wildfires/
35. Encyclopaedia Britannica. Los Angeles wildfires of 2025. Updated 2025. https://www.britannica.com/event/Los-Angeles-wildfires-of-2025
36. Shalby C. Nine months after fires, residents continue to struggle with housing stability, finances. *Los Angeles Times*. October 17, 2025. https://www.latimes.com/california/story/2025-10-17/nine-months-after-fires-residents-continue-to-struggle-with-housing-stability-finances
37. Migliozzi B, Callimachi R, Lai KKR. 'Unsafe to inhabit': the toxic homes of L.A. *New York Times*. June 24, 2025. https://www.nytimes.com/interactive/2025/06/24/realestate/los-angeles-fires-toxic-homes.html
38. Society for Research in Child Development. Understanding the impacts of natural disasters on children. Published 2023. https://www.srcd.org/research/understanding-impacts-natural-disasters-children
39. Cascio WE. Wildland fire smoke and human health. *Sci Total Environ*. 2018;624:586-595. doi:10.1016/j.scitotenv.2017.12.086
40. National Council on Family Relations. State paid parental leave policy. Published 2023. https://www.ncfr.org/policy/research-and-policy-briefs/state-paid-parental-leave-policy
41. Urban Institute. Stabilizing children's lives: web-based stabilizing supports. Published 2022. https://www.urban.org/policy-centers/cross-center-initiatives/kids-context/projects/stabilizing-childrens-lives-web-stabilizing-supports

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