

THE REAL VALUE OF INVESTING IN EARLY CHILDHOOD INTERVENTION IN
TEXAS

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ABSTRACT

Early Childhood Intervention (ECI) is a set of services and supports available to babies and young children with disabilities or developmental delays. ECI has provided this opportunity to families to promote the developmental progress of children from birth through age 3 since the 1970's. ECI programs are federally and state mandated.

According to early research projects, early intervention demonstrates long-term positive outcomes for the children and families involved. ECI specifically targets children considered disadvantaged including those diagnosed with developmental delays or a disability, children living in low income households, children with a history of abuse, and other factors that contribute to deficits in development. According to research, early intervention demonstrates long-term positive outcomes for the children and families involved. Currently Texas is in the 2019 legislative session with a proposed funding increase of \$71 million for Texas ECI Programs under the Health and Human Services Commission (2018) to counteract gradual budget cuts that have occurred over the previous decade in per child funding, from \$504.00 to \$412.60. The purpose of this research paper is to review the current literature involving the overarching principles, models, and outcomes of varying ECI programs to consider if there is enough support to defend the proposed funding increase for Texas ECI, and to provide suggestions on how the funding should be allocated in order to benefit the areas of most need.

Keywords: Early Childhood Intervention (ECI), Funding, Developmental Delay, Texas

Overview of Early Childhood Intervention

Early Childhood Intervention (ECI) is a federally mandated program through the Individuals with Disabilities Education Act, Part C (IDEA, 2004) which provides targeted services aimed at increasing a child's developmental progress for children from birth to age three. Babies and young children with documented developmental delays in areas such as communication, language, mobility, and/or social/emotional interactions; or children diagnosed with a disability such as hearing or visual impairment, intellectual/cognitive disorders, or medical diagnosis that could affect development. Delays in development can have significant ramifications for later life, particularly in terms of school readiness and achievement. Whether caused by biomedical reasons or environmental factors, without prevention techniques such as early intervention, developmental delays can manifest into learning disabilities (Heward, 2013), which impact a child's ability to function within the context of the education system. Home visitations (Astuto & Allen, 2009) and intensive instructional day programs (Center for Law and Social Policy & ZERO TO THREE, 2012) have been found to foster secure attachment relationships among children and their caregivers (Astuto & Allen, 2009), which can be linked to an increase cognitive functioning and school readiness in the short term, as well as boost overall health and socioeconomic outcomes in the long term (Heckman & Kautz, 2013). Therefore, the purpose of these programs is to provide at-risk children targeted interventions to facilitate their development as it compares to same-aged peers. Research has overwhelmingly confirmed that the earlier an intervention is started, the more benefits that it will bring into that child's life; indicating, ECI provides an essential resource to families by coordinating relevant services to guide the child's

developmental progress. (Zigler & Hall, 2001; Heckman & Raut, 2013; Elgano, García, Heckman & Hojman, 2016).

Principles of Early Childhood Intervention

In order to serve children with developmental delays and their families with the highest quality services, ECI programs have shared principles that guide all service provision, documentation, and interactions between professional staff and families. The foremost shared principle of ECI programs is that the focus should always remain on the individual needs of the child within their natural environment; each outcome that is determined by the service providers should reflect this principle because teaching a child a particular skill in an isolated context removed from their daily life is of no use to them developmentally. Similarly, outcomes written for children in the ECI program should be measurable, developmentally appropriate, based on the needs of the child. Another shared principle of ECI is the collaborative nature of services. In the late 1990's, ECI shifted to a family-centered model, which increased parent/guardian involvement in the service provision and gave the professionals more of a mentoring role in the relationship to support family's efficacy in caregiving strategies (Sukkar, Dunst & Kirkby, 2017). In addition to the collaboration of families and professionals, service providers should effectively communicate with each other as well as specialists, day care providers, evaluation teams, school districts and medical professionals to better serve the child's needs from a wholistic approach. Moreover, the overarching principle of ECI programs suggests that the early identification and intervention of developmental delays are absolutely key to promote developmental progress among young children (Shapiro, 2011). The earlier that identification happens, the more opportunities the child has to

receive quality interventions with the goal of reaching developmental milestones within the same time frame as same-aged peers.

Models of Early Childhood Intervention

ECI centers around the idea that children are best served through interventions that most closely align with their and their family's specific needs; therefore, different types of programs and service delivery methods have been developed to support those diverse situations.

Home Visitation. One of the models of ECI programs is the practice of home visits by service providers to qualifying families. Home visitations are targeted for each individual and family. According to the child's specific needs, various services will be provided as organized by a designated service coordinator who is responsible for maintaining a relationship with the family. The service coordinator assesses through an evaluation process involving a developmental assessment such as the Battelle Developmental Inventory, Second Edition (BDI-2) with the family present in order to determine the child's specific deficits over the various developmental domains: adaptive, communication, motor, social/emotional and cognitive (Early Childhood Intervention Services, n.d.). Then, the service coordinator will manage the needs of the family by orchestrating a provision of services which most commonly include physical, occupational and speech therapists, nurses, social workers, counselors and interventionists. The home visitation model closely aligns with the family-centered principle of ECI because it facilitates interventionists to meet families on their own terms (Early Childhood Intervention Services, n.d.). Additionally, home visitation provides an excellent learning opportunity for service providers to understand the particular cultural

and dynamics of each individual family, so services can be tailored to suit their exact needs (Astuto & Allen, 2009). Because the child is in a comfortable and familiar environment during a home visit, service providers and interventionists also become privy to valuable information about the family and home that would not otherwise be understood through an office visit or at a childcare setting (Astuto & Allen, 2009). This assists the child's development because it allows service providers to interpret the specific needs of the child and implement interventions that suit their natural environment while supporting their developmental needs as well.

Likewise, home visitation includes any regular or natural context of the family structure; the service does not necessarily have to be in the family's place of residence but may also take place at the local park that the family frequents, the local grocery store, or the family's favorite restaurant. According to the principles of ECI, these natural environments are appropriate for providing services in the context of the child's life (Early Childhood Intervention Services, n.d.). Regardless of the physical location, providing services in these natural environments allows the service provider to coach the family on how to support their child's specific needs as they arise in these differing contexts (Austuto & Allen, 2009).

Beyond just understanding the family in their natural environment, home visitation can be an extremely powerful tool in parent/family education in regard to their child's unique needs (Austuto & Allen, 2009). Aligned with another principle of ECI, the belief that with support and resources families can provide optimal environments to promote their child's development (Early Childhood Intervention Services, n.d.), home visitation presents a unique opportunity for service providers to coach the family to use

different strategies to specifically meet their child's needs (Dozier & Bernard, 2017). In particular, home visitation sessions can be an opportunity for service providers to support the attachment between the family and child by modeling intervention techniques in real time as the child exists within their home environment (Dozier & Bernard, 2017).

Attachment, as well as other important facets of development that a child may have difficulty with can be easily addressed in an individualized manner through the practice of home visits, because intervention will always be tailored to that child's individual needs and progress. Moreover, when parents are given specific strategies to aid in their child's appropriate development, they feel more confident in their parental role and therefore are able to support more beneficial outcomes for their child in the long run (Heckman, 2008).

Day Programs. Contrastingly with home visitation, ECI can also be provided in the context of daily child care programs. This model is more common in urban areas and is most successful for parents who are not at home with their child for the whole day. Depending on the location and philosophy of the program, day programs can either be targeted for specific populations or universal with open enrollment. Day programs are generally more focused on a child's cognitive development in the short term (school readiness) and their socioemotional, language and health benefits in the longer term (Zigler & Hall, 2001). To differentiate an early intervention day program from a typical childcare setting for kids of the same age, it is important to note that the instruction is targeted to the needs of the individual children and provided by specifically trained instructors/caretakers. Many of the landmark studies involving the outcomes of intensive early intervention practices were completed using a day program model; The Perry

School Project, the Abecedarian and Jamaica Study were all pivotal in understanding the long-term benefits ECI provided through intensive day programs (Heckman & Kautz, 2013).

Furthermore, Head Start is a federal program that is available to children who qualify for ECI services based on household income or diagnosed disability. Because of the limited resources available, Head Start programs tend to only be available to the families with the greatest need. For example, in Oklahoma, Head Start programs begin their entry qualification criteria for families with incomes less than 185% of the poverty line, children with a documented disability, tribal care, or has been enrolled in Head Start Programs (Center for Law and Social Policy & ZERO TO THREE, 2012). Furthermore, day programs are significantly more effective when caregivers are given access to quality training from service providers such as speech pathologists and intervention specialists (Romano & Woods, 2018). Just like home visitations follow a parent coaching model, this same philosophy can be implemented to caregivers in day program models in order to ensure quality of care (Romano & Woods, 2018). Despite the greater initial cost associated with the introduction of day programs, programs such as Early Head Start can be significantly more cost effective and sustainable than traditional 1:1 therapy models or home visitations, especially for children diagnosed with specific developmental disabilities (Vivanti, Paynter, Duncan, Fothergill, Dissanayake, & Rogers, 2014).

Targeted versus Universal Programs. Targeted programs refer to programs such as Head Start, in which specific populations are qualified to enroll, and interventions are tailored to suit their individual needs. Universal programs refer to a broader model in which children may enroll regardless of demographic. In terms of providing early

intervention services through day programs, universal early childhood education can be a point of contention among developmental specialists. According to a global meta-analysis done by researchers Thomas van Huizen and Janneke Plantenga (2018) from the Netherlands, ECI programs can produce dramatically different outcomes regardless of structure or philosophy (2018), with conflicting improvement rates over time. The study discusses the policy implications of these mixed findings, which can be summarized to conclude that universal Early Childhood Education and Care, while not detrimental to any child's development is not necessarily an effective distribution of resources among children of various socioeconomic levels (van Huizen & Plantenga, 2018). Moreover, intensive early childhood programs such as the Infant Health and Development Program have echoed these outcomes; the study confirms that children from higher socioeconomic backgrounds are less likely to benefit significantly from the specific interventions of the program itself (Duncan & Sojourner, 2013). However, this study also conjectures that since it was completed within a heterogenous group of peers, rather than a homogenous group like previous studies, peer interaction with children from higher SES backgrounds could be part of why the program was successful for the disadvantaged children (Duncan & Sojourner, 2013). Because of limited resources and funding, most ECI day programs are not universal, rather operating on some sort of sliding scale model that families fall into based on their income and other factors.

Policies of Early Childhood Intervention

ECI services are guaranteed to qualifying children and families under specific federal and state policies that have been enacted since the 1970's. While states determine

how to the services are provided, there are federal mandates that require specific steps in order to receive funding for the programs.

Individuals with Disabilities Education Act - Part C. The Individuals with Disabilities Education Act (IDEA) was an important civil right win for people with disabilities, specifically in terms of equal educational services. The law was originally passed in 1975, with the most recent Congressional reauthorization as IDEA in 2004 with the goal of making classrooms and other public spaces more inclusive. Part C of IDEA, titled Early Intervention Program for Infants and Toddlers with Disabilities extends legal protections to children between the ages of zero to three. In section 303.1, the purpose of Part C is illustrated as follows,

- (a) Develop and implement a statewide, comprehensive, coordinated, multidisciplinary, interagency system that provides early intervention services for infants and toddlers with disabilities and their families;
- (b) Facilitate the coordination of payment for early intervention services from Federal, State, local, and private sources (including public and private insurance coverage);
- (c) Enhance State capacity to provide quality early intervention services and expand and improve existing early intervention services being provided to infants and toddlers with disabilities and their families;
- (d) Enhance the capacity of State and local agencies and service providers to identify, evaluate, and meet the needs of all children, including historically underrepresented populations, particularly minority, low-income, inner-city, and rural children, and infants and toddlers in foster care; and

(e) Encourage States to expand opportunities for children under three years of age who would be at risk of having substantial developmental delay if they did not receive early intervention services. (IDEA, 2004)

According to IDEA (2004) Part C, while the federal government provides some funding to early intervention programs following specific requirements, the development, execution and updating of early intervention services, as well as child-find efforts and eligibility assessment are under the jurisdiction of individual states (IDEA, 2004).

Referral and Assessment. Generally, children start the process with early intervention services after a referral from a physician, caretaker or primary caregiver, or the child's family. Additionally, states are required to maintain a child find system that is responsible for identifying qualifying children and referring the families to early intervention providers and programs. Once a child is referred to an ECI program, they begin assessments in order to determine whether the child officially qualifies for intervention services. This assessment must be completed within a 45-day period following the referral to ensure timely provision of services. As part of the evaluation, the family must provide a comprehensive medical history of the child in order to have a foundational understanding of the reason for referral and potential deficits prior to actual assessment. All programs are required to evaluate the child's strengths and needs as related to development using a multidisciplinary approach and a research-based instrument. This eligibility assessment, along with the medical history of the child and observations of the family and evaluators inform the decision to qualify a child for early intervention services. If services are deemed appropriate, the next step is to create an

Individualized Family Service Plan (IFSP) in order to begin coordinating service provision for the child and family.

Individualized Family Service Plan. Once a child is determined eligible for early intervention services, the Individualized Family Service Plan (IFSP) serves as living documentation for the child's goals, progress, and interventions, and must be completed within the same 45-day period as the assessment. Every six months, the IFSP must be reviewed by the family and service coordinators to determine the course of the intervention and make adjustments as needed. In addition, a formal evaluation must occur annually to discuss the child's goals but can happen more frequently due to a child's progress. The IFSP document itself includes all relevant information about the child's health, development, and other factors that could possibly contribute to their planned interventions, as well as detailed statements from the family describing their concerns about the child's development. Much of the developmental progress of the child is expressed through measurable goals that are written on the IFSP; these goals reflect the concerns of the family within the child's natural environment and should be developmentally appropriate to the individual child. With each goal, the IFSP includes which intervention strategies will be implemented for the child to meet their goals, and in what context those services will be delivered., how often, and for how much time per visit. The IFSP also names the service coordinator for the case, as well as any other relevant service providers that will be in contact with the family throughout the process.

Developmental Benefits of ECI

Children's development can be broken down into several domains: cognitive, social/emotional, language/communication, motor, and adaptive. When children are

referred and determined eligible for ECI services, it is generally because of a percent deficit in one or more of these domains, as determined by an assessment instrument such as the BDI-II. Interventions across these developmental domains are provided through home visitation with service providers such as Early Intervention Specialists (EIS) or therapists, or through day programs which the child attends outside of the home.

Cognitive Development. Cognitive development in children refers to a child's ability to learn, remember, and problem solve. Many of the studies that investigate improving cognitive development through early intervention programs have followed the day program model. For example, many of the landmark studies that explore the long-term outcomes of early intervention used intensive, targeted models, including the Perry Preschool Project, Abecedarian study, and Jamaican study. Although these programs were all focused on closing achievement gaps and improving overall development, the outcomes were not globally reflective of cognitive development overall (Heckman & Kautz, 2013). While children in the Jamaican study demonstrated progress in their cognitive development in the short term, including school readiness, their long-term outcomes were only positively influenced by the stimulation intervention (Heckman & Kautz, 2013). Long term, the Perry Preschool Project and Abecedarian study illustrated successful outcomes in areas that are tangentially related to cognitive development such as decreased criminal activity and substance abuse issues, as well as good character skills reported by teachers in later grades of schooling (Heckman & Kautz, 2013). Because cognitive skills influence the other areas of development, when specialists intervene early, they can progress the child's overall growth. Additionally, early intervention services can target specific cognitive functions such as attention. Similar to the

importance of socioemotional development, addressing the attachment relationship between caregiver and child proves to foster attention in children (Dozier & Bernard, 2017). Intervention services can also be provided by occupational therapists who implement specialized, evidence-based interventions tailored to specifically develop a child's cognitive skills. In a comprehensive study of thirteen programs involving occupational therapists providing interventions geared towards cognitive development in terms of following routines, attention and other life skills, researchers found short term improvements in the area of cognitive development (Frolek Clark & Schlabach, 2013).

Social/Emotional Development. Socioemotional development in children refers to the child's ability to engage in meaningful social interactions with caregivers and peers as well as form a concept of self and respond to stimuli. One of the biggest components of socioemotional development in infants and toddlers has to do with attachment, specifically attachment with a primary caregiver. Secure attachment relationships have been linked to better global development across domains, as well as cognitive function and attention in populations of foster children (Dozier & Bernard, 2017). The relationship between caregiver and child can be considered the basis for the socioemotional development of a child. Although disorganized attachment relationships are not necessarily indicators of abuse or maltreatment, this type of attachment relationship is common among children in this population (Granqvist et al, 2017). Moreover, insecure attachment relationships in infancy and early childhood can be predictors of social and behavior problems later on in a child's life (Granqvist et al, 2017). Because of this, many ECI practices involve family coaching that focuses on modeling how to create a secure attachment relationship between a caregiver and child (Dozier & Bernard, 2017). Not

only do children benefit in terms of socioemotional development through early intervention, but parents and caregivers have also been shown to have significantly positive outcomes after participating in such programs including greater sensitivity to their child's needs, confidence in their parenting abilities, and overall better emotional functioning (Dozier & Bernard, 2017). Additionally, in day programs like Head Start, or group classes conducted by early intervention specialists, children are given opportunities to socialize and navigate these social and emotional skills that they may be developing during home visits and individual therapy sessions.

Communication/Language Development. Language development coupled with communication skills are another important focus of ECI because early language intervention is crucial for this population of children at this age because communication is the crux of social interaction. Language development in young children refers to the child's ability to understand and use language. Service providers such as EIS and speech pathologists implement interventions in order to foster language development. Because communication and language are so varied, there are a multitude of different approaches and interventions that target specific needs ranging from nonverbal children to those with more severe diagnosis. For example, research indicates that structured object play has a positive association with intentional communication for children with Autism Spectrum Disorder (Lieberman & Yoder, 2012). Additionally, many children qualify for intervention services because of a diagnosed hearing impairment. With listening and spoken-language early intervention programs, children with hearing loss have been found to develop communication skills within the same developmental milestones as same-aged peers, which promoted overall social interaction and inclusion for these children

(Constantinescu, Phillips, Davis, Dornan & Hogan, 2015). Beyond services provided through the home visitation model, day programs such as Head Start have also indicated success in promoting language development among infants and toddlers through “appropriate language models, expansions, imitations and environmental arrangements” all structured through daily routines when caregivers are supported by a coaching model of quality training (Romano & Woods, 2018). Children can particularly benefit from these interventions provided through the day program model because of the increased interaction with peers as well.

Motor Development. Just as with the other domains of development, targeted early intervention services can promote progress in motor skills among children with delays in this area. Motor development in infants and toddlers refers to a child’s ability to control and use their muscles in order to perform necessary tasks. Because of the collaborative aspect of ECI, special skills training pertaining to motor development is often delivered by a physical or occupational therapist. Implementing task-specific therapies that support coordination development have positive results for progress in motor skills, mainly as a result of the solution-based approach this type of intervention follows (Pinner, Robbins, Thompson, Walter, Vaughn & Raynes, 2014). Task-specific training is notably successful in developing functional motor skills among infants and toddlers because of its low-incidence and repetitive nature (Pinner et al, 2014). Additionally, because the developmental domains are so closely intertwined, children with deficits in cognition or neurological conditions may also be susceptible to motor delays, especially in the context of daily routines. To stimulate motor development in this population of children, interventionists such as physical therapists often plan

interventions through common and natural activities that a child is expected to complete during a typical day. These interventions have been successful at improving motor function in adults with similar conditions and are thought to translate to the infant and toddler demographic (Valvano & Rapport, 2006). Similarly, parents have been found to play a role in promoting the development in motor skills among their own children when taught strategies such as AIMS to implement at home with their children (Elpídio de Sá, Nunes, Gondim, Fontenele de Almeida, Couto de Alencar & Viana-Cardoso, 2017). This parent coaching model of physical therapy through home visitation can support motor skill development in children with developmental delays.

Health Outcomes. Beyond developmental domains, ECI often addresses health issues experienced by young children such as medical conditions and difficulty feeding. Targeted interventions in these areas demonstrate positive outcomes for overall health in the long term. Particularly due to home visitation, and the accompanied parent education by the intervention specialists, health outcomes such as fewer doctor visits and health related accidents (Astuto & Allen, 2009). When parents have a better understanding of how to support their children's particular needs, they are more successful at caring for their health needs as well, especially if those parents were not previously exposed to the resources and information they receive through their support services. Moreover, children who have experienced trauma during their toddler years are at risk for more health-related complications than same-aged peers (Melville, 2017). Early intervention by fostering secure caregiver attachment relationships can mitigate some of these predictors and promote better health outcomes through adulthood (Melville, 2017). In terms of day program models, research indicates that teaching nutrition and hygiene in early education

contexts can improve overall health outcomes for young children; the more knowledgeable caregivers are about these areas, the better they are able to provide interventions to the children enrolled in day programs (Alkon, Rose, Wolff, Kotch & Aronson, 2016).

Economic Benefits of ECI

By focusing on prevention and education rather than reactionary assistance programs, early intervention provides numerous benefits to the overall economy (Astuto & Allen, 2009). Because early intervention promotes positive outcomes in adult life in terms of overall health and wellbeing (Heckman & Kautz, 2013), but there are significant incentives for the private sector to invest in early intervention programs to advance their economic interests. In particular, researchers Zigler and Hall have found that “because family stability and other family concerns affect worker satisfaction and productivity, it is in the best interest of the private sector to offer services and benefits that can help their employees’ families.” (2001, p.50). This corroborates with the Family Stress Model, which implies that children in families who experience more disadvantages are at higher risk for insecure attachment relationships which in turn affects the developmental progress of the children in the family, possibly resulting in developmental delays for the child (Neppi, Senia & Donnellan, 2016). Whether funding comes from the public or private sector, undoubtedly implementing early intervention programs makes fiscal sense because of the expected return (Heckman, 2012).

Specifically for disadvantaged populations, such as families with low socioeconomic status, quality ECI can be a major contributing factor to school readiness and performance (Heckman, Pinto & Savelyev, 2013), as well as social mobility

(Heckman & Raut, 2013) because it gives an opportunity for parents/guardians to improve their skills while supporting the development of their child (Leventhal & Brooks-Gunn, 2000). Universal and targeted ECI programs do have an incredibly strong impact for improving children's cognitive skills beginning Kindergarten (Duncan & Sojourner, 2013), resulting in long-term benefits through adulthood including higher graduation and employment rates, better jobs, increased income and reduced criminal activity (Elgano, García, Heckman & Hojman, 2016; Heckman, Pinto & Savelyev, 2013). In many cases, the services provided through early intervention are higher quality than what a family can provide at home, due to disadvantages beyond their control (Elgano, García, Heckman & Hojman, 2016). All of these factors are incredibly important in boosting the overall economy, especially in terms of reducing the amount of federally funded assistance programs that are designed to help mitigate these social issues after they have already happened. Rather than paying for the resources to support these families need later, fiscal responsibility in terms of federal funding to assistance program includes supporting early intervention initiatives. By supporting ECI, we are able to circumvent the economic strain of these reactionary social assistance programs by investing early with quality practices.

Furthermore, Dr. James Heckman, an economist from the University of Chicago, developed an equation to measure the economic return on investment of early intervention. This equation is illustrated by a curve (see Figure 1) representing the urgency of early intervention because the outcomes are much more successful when the interventions are implemented as early as possible (Heckman 2008). The Heckman Equation can be described as $\text{invest} + \text{develop} + \text{sustain} = \text{gain}$, which is what Dr.

Heckman asserts is the formula to enact lasting societal benefits through the practice of intervening as early as possible. According to Heckman, “early childhood development

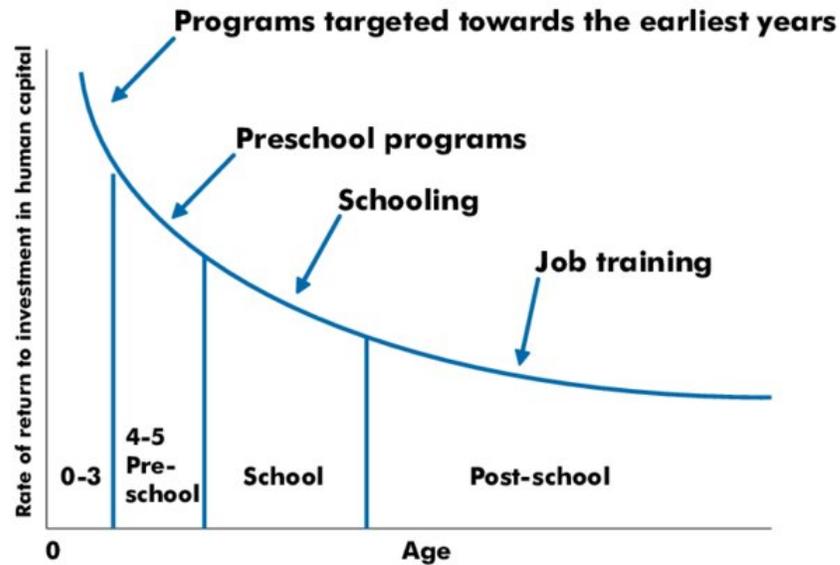


Figure 1: The Heckman Curve, 2008

directly influences economic, health and social outcomes for individuals and society.” (2012, p.1). The earlier that targeted, quality interventions are introduced in a person’s life, the greater benefit for them individually, as well as the largest economic return overall; therefore, investing in ECI models rather than reactive social programs supports a greater return on investment.

Current State of ECI in Texas

Established in the late 1970’s, ECI in Texas was the direct result of parents’ involvement in the Texas Legislature in order to ensure services for their children. After a few iterations, ECI in Texas was moved under the Texas Health and Human Services Commission (HHSC) in 1993 as an independent entity (Early Childhood Intervention Services, n.d.). To date, ECI is still managed through the HHSC, which provides funding and legislative oversight for all programming in Texas.

Principles of Early Childhood Intervention in Texas

Quality ECI models focus on collaboration between different professionals such as physical and occupational therapists, speech pathologists, educational intervention specialists, facilitated by a service coordinator who communicates with the family directly. Collaboration, as well as maintaining a family-centered approach to service delivery, using evidence-based interventions, and recognizing the cultural values of an individual family are key elements of ECI. There are seven principles of ECI, which are listed on the Texas Health and Human Services website (2019) as follows,

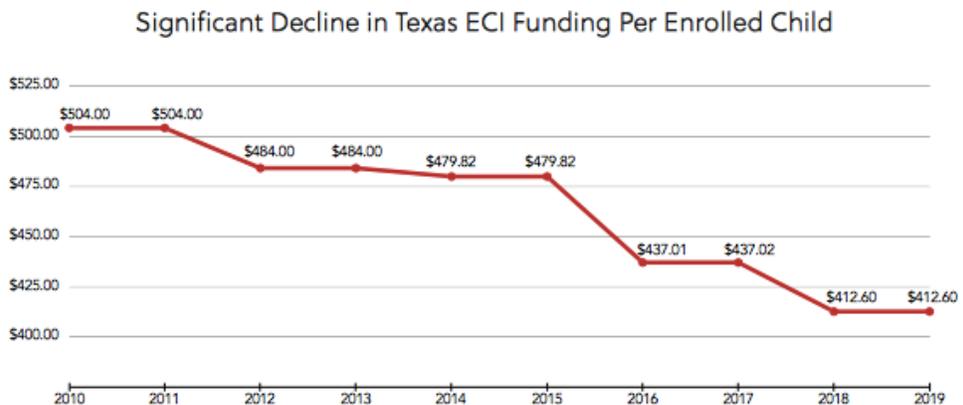
1. Infants and toddlers learn best through everyday experiences and interactions with familiar people in familiar contexts.
2. All families, with the necessary supports and resources, can enhance their children's learning and development.
3. The primary role of a service provider in early intervention is to work with and support family members and caregivers in children's lives.
4. The early intervention process, from initial contacts through transition, must be dynamic and individualized to reflect the child's and family members' preferences, learning styles, and cultural beliefs.
5. Individualized Family Service Plan (IFSP) outcomes must be functional and based on children's and families' needs and family-identified priorities.
6. The family's priorities, needs, and interests are addressed most appropriately by a primary provider who represents and receives team and community support.

- Interventions with young children and family members must be based on explicit principles, validated practices, best available research, and relevant laws and regulations.

Despite the differences in program models across the state, these principles are shared by all ECI providers and influence the development and continuation of programs.

Funding

Since 2016 in Texas, ECI is partially funded through the Health and Human Services department of the Texas Government, and is carried out by contracted non-profit organizations, school districts or private companies. Private insurance companies of the families can also cover part of the costs providing services through ECI, and for families without insurance, or those whose insurance does not cover various ECI related expensive, program costs are calculated in a sliding scale based on family income and circumstance. Medicaid can also be a source of funding for those families who qualify for benefits. Furthermore, there has been a significant decrease in overall state funding to ECI programs since 2010, specifically the per-child funding has decreased by 18%



Source: Texas Health and Human Services Commission, (July 2018). Dataset from Public Information Request made by Texans Care for Children.

Figure Two: Decline in Texas ECI Funding from 2010 to 2019

(Texans Care for Children, 2018). These funding cuts have exasperated the already prevalent lack of resources common to ECI programs, causing many ECI centers across the state to cease operations.

Discussion

As indicated across the research, early intervention is undoubtedly effective at closing developmental gaps among at-risk children. Across the developmental domains, ECI programs have demonstrated success in fostering development among infants and toddlers, as well as boost outcomes for families and caregivers. Moreover, investing early has been shown to benefit the overall economy, as providing quality interventions at the earliest age possible strengthens outcomes for an individual over their lifespan, especially if they are part of a disadvantaged population. Giving families access to resources and education during the first years of a child's life - whether that be by family coaching through home visitation or intensive day programs for children - levels the socio-economic playing field in terms of social mobility and positive long-term health and wellbeing outcomes.

Currently, Texas is in legislative session. There is a proposed HHSC Exceptional Item request for a funding increase of \$71 million for ECI in the 2020-2021 budget (Texans Care for Children, 2018). The research suggests that not only should Texas affirm the positive benefits of ECI programs by approving this additional funding but should allocate it in ways that will be most effective for the largest number of children and families that qualify for services.

In terms of allocation, the research demonstrates that the home visitation model, while tremendously successful at coaching parents and providing targeted interventions

for children, may not be a financially stable model nor provide enough hours of service provision in order to make the greatest impact on a child's development. However, funding could be used to hire and train more service providers, particularly service coordinators and early intervention specialists, in order to support larger caseloads of home visitations. With more service providers, children and families will receive more hours of intervention than what is currently able to be supported through the programs. Day programs, such as Head Start, however, boast the greatest short-term outcomes related to school readiness, and closing developmental gaps during infancy and toddler years. Therefore, allocating funds to support the creation of more early learning centers and providing higher quality training to caregivers could be a viable option in order to serve more children and families. This is not to say that Texas should mandate early childhood or preschool programs across the board, because research indicates that targeted programs, rather than universal ones, are a more judicious use of funding because disadvantaged children benefit significantly more from these types of programs.

Limitations and Conclusion

This study has several limitations. Because the researcher currently works in an ECI program, their interpretation of the findings may be biased in favor of supporting ECI services and programs across the state. Additionally, there was limited access to some data regarding the success rates of programs in Texas as reported by the ECI department of Texas HHS; many of the data was unlabeled or needed additional background information to interpret faithfully. In the future, research could be improved by including an analysis of this raw data in order to determine the overall state of ECI in Texas according to their reported success rates. More research in general is needed on

populations living in Texas, particularly examining the effects of various demographics on the percentage of child outcomes met, including but not limited to race, rural vs. urban communities, and languages spoken at home. Should the funding increase be confirmed by the Texas Legislature, it needs to be allocated judiciously using evidence-based practices of the field in order to provide the highest quality services possible to the children and families with the greatest need in Texas.

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