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**An Analysis of Outcomes and Reporting Methods Associated with
Select States and Territories Participating in IDEA Part C**

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by

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Report

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Abstract

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The Individuals with Disabilities Education Act Part C (2004) grants federal funding to states and territories who implement early childhood intervention programs meant to assess and treat children with disabilities ages 0-3. Although each state and territory receives federal funds provided through taxpayers, there are large discrepancies in the way each state and territory determines eligibility, assesses children, implements treatment, and measures outcomes. This report examines the outcome results of 8 states and 1 U.S. territory to consider if variables such as funding, population, or enrollment numbers have an effect on outcome results. In addition, this report looks at differences in eligibility criteria and reporting methods for each state and territory included.

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INTRODUCTION

In 1986, Public Law 99-457 was passed, amending the original Education for all Handicapped Children Law of 1975 and enabling states to use federal funding among other resources to establish a system of services aimed at improving the lives of babies and toddlers with disabilities and their families (U.S. Department of Education, 2010.) Amidst an influx of research and public awareness of the importance of the first three years of life, suddenly states had financial incentive to enhance early intervention programs already in existence or to build early intervention programs so that all eligible children in the United States could have access to crucial services that could potentially improve the quality of life of those children as well as their families. A large body of research on the financial and educational benefits of early intervention for children shows that although this practice is potentially beneficial, systems of quality service provisions do not appear overnight (Majnemer, 1998.) Establishing 'Part H' as it was previously known, was no easy undertaking. In the last 25 years early childhood intervention programs have struggled to define themselves amidst unclear federal requirements, a lack of cohesion among states, and the mass of difficulties associated with defining the needs of a very diverse group of children and families through state and federal legislation.

Although allowing states a considerable amount of autonomy has led to flexibility in how individual programs determine eligibility, treatment, and outcomes, in recent years the Office of Special Education Programs (OSEP) has requested more accountability from Early Childhood Intervention (ECI) programs, in accordance with the

Government Performance and Results Act (GPRA.) This mandate left states with the task of determining eligibility, coordinating various types of funding, providing timely service, and providing annual reports of outcomes in order to remain eligible for federal funding. While it has been established that these services are important for supporting optimal development in young children with disabilities, many questions regarding how to effectively provide these services remain. In this time of close examination of state and federal budgets, as well as an increasing need for accountability for publically funded programs, questions regarding efficacy become crucial. This report will examine the current state of ECI programs from 8 states and 1 U.S. territory, based on outcomes reported from the 2011 fiscal year to detail the status of funding and program administration in diverse geographical and population density regions of the US. Current research and reports on the present and future problems associated with PL 99-457, or as it is currently called the Individuals with Disabilities Education Act (IDEA) Part C will also be evaluated. The goal of this report will be to provide a guide for professionals, such as Speech-Language Pathologists, and policymakers to examine current practices in ECI in a global sense.

History of IDEA Part C

Following the Civil Rights movement, activists supporting inclusive education for special needs children began pushing for legislation to address the needs of individuals with disabilities. In 1975, Congress passed the Education for All

Handicapped Act (EHA) (Public Law 94-142) EHA has since been renamed the Individuals with Disabilities Education Act (IDEA) to reflect first-person language

The original law addressed the needs of children with disabilities and caregivers of children with disabilities, including access to public schools and more defined rights for parents regarding their child's education. This landmark legislation allowed children who were previously denied access to a public education, the opportunity to gain academic and functional skills in a true classroom. This was an extreme change, as previously 1 million children with disabilities in the U.S. were denied a public education, and half of the total number of children with disabilities only had limited access to public school (U.S. Department of Education, 2010.) However, PL 94-142 only addressed the needs of school-age children from 3-21. There was still a considerable amount of work to be done in order to address the needs of infant and toddlers with disabilities in need of services.

After the implementation of PL 94-142, more efforts were made to establish service provision for children birth- 3 years of age. In 1986 amendments were added to the Education for the Handicapped Act (EHA). These amendments included financial incentives for states to provide Early Childhood Intervention (ECI) programs that would address the needs of children with disabilities from birth (U.S. Department of Education, 2010.) What is now called IDEA Part C has been altered numerous times to reflect changes in eligibility and accountability requirements, but the purpose behind the law remains the same.

According to federal legislation, IDEA Part C was created for the following goals:

- to enhance the development of infants and toddlers with disabilities, to minimize their potential for developmental delay, and to recognize the significant brain development that occurs during a child's first 3 years of life;
- to reduce the education costs to our society, including our Nation's schools, by minimizing the needs for special education and related services after infants and toddlers with disabilities reach school age;
- to maximize the potential for individuals to live independently in society;
- to enhance the capacity of families to meet the special needs of their infants and toddlers with disabilities;
- to enhance the capacity of State and local agencies and service providers to identify, evaluate, and meet the needs of all children particularly minority, low-income, inner city, and rural children, and infants and toddlers in foster care

(IDEA, 2004.)

In order to implement these goals, IDEA Part C supplies a federal grant to each state to fund their ECI programs. These programs provide a variety of services to the families of infants and toddlers and with disabilities, providing they meet a specific eligibility criteria set by states. Additionally, some states offer services to children at-risk for disabilities due to a variety of circumstances such as extreme poverty or prenatal drug exposure. More information on specifics related to eligibility determinations will be discussed in the *Eligibility* section.

In an effort to improve the functioning of infants and toddlers with disabilities as well as their families, IDEA Part C provides a wide variety of services. Each of these services target specific developmental deficits for the infant or toddler with disabilities as well as a counseling component so that caregivers can engage and help their child with or without a professional present. Providing speech or physical therapy to a child with disabilities obviously has great potential benefit, however the model of ECI is to view the whole family as the client. Services include “family training, counseling, and home visits, special instruction, speech-language pathology and audiology services, and sign language and cued language services, occupational therapy, physical therapy, psychological services, service coordination services, medical services only for diagnostic or evaluative purposes, early identification, screening, and assessment services, health services necessary to enable the infant or toddler to benefit from the other early intervention services, vision services, assistive technology devices and assistive technology services, and transportation related costs” (IDEA, 2004.)

Table 1: Services/Professionals Associated with IDEA Part C

Professionals	Services Provided
Speech-Language Pathologist	Assess, counsel, and treat in areas of speech, language, and swallowing
Physical Therapist	Assess, counsel, and treat in areas of gross motor mobility
Occupational Therapist	Assess, counsel, and treat in areas of fine motor mobility, self-help, and posture
Audiologist	Assess, counsel, and treat in areas of hearing habilitation and rehabilitation
Dietician	Provide counseling and diet change suggestions
Social Worker	Provide short-term counseling and referral services, assess social and emotional health of the child and family
Vision Specialist	Assess and counsel in areas related to vision
Nurse	Provide health services to help enable the child to benefit from other ECI services
Pediatrician	Provide diagnostic and evaluation services to inform eligibility
Psychologist	Administer and interpret psychological tests, counsel family on child's social and emotional needs
Service Coordinator	Work with the family to provide information on their rights to services provided through their child's Individualized Family Service Plan (IFSP)
Early Intervention Specialist	Provide assessments and treatment in multiple areas under the direction of other professionals

Source: IDEA, 2004, Hebbeler et al., 2007, American Physical Therapy Association, 2014

In order to provide these services ECI programs employ a variety of professionals from various fields. Primarily, these services are provided as a multidisciplinary team. Social workers, speech-language pathologists, nurses, audiologists, translators, and many other professionals play a vital role in providing services to the families of infants and toddlers with disabilities. In 2011, IDEA Part C spent 438.5 million dollars and served a

total of 342,821 children in the U.S. (ECTA Center, 2014.) However, when ECI programs face a shortage of funds or professionals, they may rely on Early Childhood Specialists, who do not have the type of specific training that Speech-Language Pathologists, Occupational Therapists, or Physical Therapists receive at a graduate educational level.

The mandates of IDEA Part C include the requirement that each child must receive an Individualized Family Service Plan (IFSP) which outlines the child's current status based on professional assessment, family needs and concerns, in addition to addressing where services would be provided in the least restrictive environment, and establishing measureable outcome predictions for the child (IDEA, 2004.) Additionally, the law outlines how much federal money states will receive, the necessity of a program to find children in need of services, public awareness programs regarding early intervention, in addition to other requirements states must fulfill in order to continue to receive federal funding.

Current issues in IDEA

Most recently, IDEA Part C has been impacted by an increasing demand for government transparency. Since the passage of the Government Performance and Results Act (GRPA) many government programs have come under scrutiny. In order to spend tax dollars in a program, there must be evidence that indicates that the program is succeeding. However, the question of whether or not a government initiative aimed at helping improving the lives of infants, toddlers, and their families can be determined as

successful is not easily defined. Many discussions were held after the passage of GRPA, but in the end no defined measures of success were created. ECI programs were not required to start reporting outcomes until the Office of Management and Budget reviewed IDEA Part C and found that the program was “Not Performing” due to a lack of reported results. Rather than succumb to funding cuts due to a “Not Performing” states, the Office of Special Education (OSEP) helped to establish the Early Childhood Outcomes Center (ECO). This center began the difficult task of developing outcome measures (Hebbeler, Barton, & Mallik, 2008.)

Through a funding initiative led by the OSEP, the ECO developed three child outcomes and three family outcomes intended to fulfill the accountability requirements necessary to receiving federal ECI funds for states. The outcomes are defined in Table 2. States officially began reporting these outcomes in 2007 (Hebbeler, Spiker, & Kahn, 2011.)

Table 2: Family and Child Outcomes as Developed by ECO

Family Outcomes	Families know their rights.
	Families are able to effectively communicate their child’s needs.
	Families help their children develop and learn.
Child Outcomes	Children demonstrate positive social-emotional skills including social relationships.
	Children acquire and use knowledge and skills including early communication.
	Children use appropriate behavior to meet their needs.

Source: *Part C State Performance Plan (SPP) and Annual Performance Report (APR): Part C Indicator Measurement Table*, U.S. Department of Education.

State data results for these outcomes must be reported in percentages in two categories 1) of those infants and toddlers who entered or exited early intervention below age expectations in each outcome, the percent who substantially increased their rate of growth by the time they turned 3 years of age or exited the program and 2) the percent of infants and toddlers who were functioning within age expectations in each outcome by the time they turned 3 years of age or exited the program (U.S. Department of Education, 2014.)

Additionally, if states include children at-risk for developmental disabilities, they must report on outcomes related to those children in a separate category. Although there is no federal requirement for what tests or measurement procedures must be used to determine if children are meeting outcomes, states and agencies are required to report what measures they chose. The specific difficulties associated with requiring data on outcomes without specifying how outcomes should be measured will be discussed in more detail in the *Outcomes* section. Additionally, although the outcomes are the focus of this report, states are also required to report where children are being served, the percent of infants and toddlers who received services in a “timely manner”, transition status of children exiting ECI but maintaining special education services through IDEA, the number of complaints lodged against the ECI program what their dispute status is, and the correction of non-compliances from the previous fiscal years. Though these indices are important for ECI programs to maintain records on how timely their service provision

is, this report will focus on the outcome reporting requirement because it allows a better consideration of the efficacy of services when they are provided.

Amidst the increase in accountability requirements, ECI programs and providers must manage a significant amount of data collection and reporting in addition to coordinating and implementing care for the children and families they serve. Reporting on outcomes is essential to measuring program success and maintaining continued funding but the amount of data collection necessary can be daunting. According to Hebbeler et al. (2011) “many states still report that excessive attention to compliance with the requirements of IDEA has been at the expense of a meaningful focus on issues related to the quality of services.” ECI programs are currently navigating balancing outcome reporting with providing quality care amid national economic difficulties.

Proposed Theoretical Frameworks

DEVELOPMENTAL SYSTEMS MODEL

In the early years following the establishment of *IDEA Part C*, ECI programs were too diverse and uncoordinated to operate under a common framework. However, with the increase in federal guidelines and accountability standards, it is now possible to initiate an overall framework to outline how ECI should operate. In an effort to describe one potential framework of early childhood intervention, Guralnick (2001) introduced the *Developmental Systems Model*. This model is built on three basic levels. The first level involves the child’s developmental level. Practitioners must understand how children use their expanding developmental abilities to gain social and cognitive abilities, in addition to understanding where the child client is operating. The second level is recognizing the

environmental and familial interaction patterns that may also be impacting the child's social or cognitive abilities. Guralnick notes that even similar family interaction patterns may have widely varying impacts on different children with disabilities (Guralnick, 2011.) The third level of the Developmental Systems Model is family resources. Understanding the extent of resources (such as money, time, energy, and personality traits) that families have to give to their children can help ECI practitioners understand the best methods of service for their clients.

Impacting each of these three levels are what Guralnick describes as “stressors” (Guralnick, 2011.) These stressors begin at the level of child development, but can impact environmental and familiar interactions and family resources. Additionally, the added stress on the environmental and familiar interaction level and the family resource level can, in turn, impact the child's developmental level. This cycle can be destructive for both the child and the family. Therefore, ECI professionals are needed to intervene and reduce stressors by educating the family and providing services to the child.

One way to reduce stressors is by facilitating positive parent-child interactions. By establishing a discourse framework, instructional partnership, and socio-emotional connections between parents and children, Guralnick suggests that with intervention, parent-child interactions could be improved, thereby reducing stress (Guralnick, 2011.) For example, by educating parents on how to communicate with their child at the appropriate developmental level, ECI professionals may be able to help improve both the parent-child discourse and the instructional partnership. Parents may benefit from understanding the needs and abilities of their child, and the child may benefit from

further connection with their caregiver, all of which lead to improvement in socio-emotional connections.

In regards to the third level, family resources, ECI professionals must consider not only a family's financial and time commitment resources, but also the personality traits of both the child and the caregivers. One might assume that a parent is capable of interacting in a positive manner with their child and wishes to engage with them, however not all parents know or understand how to connect with a child with disabilities. It is also important to consider cultural differences at this level. While some cultures are considerate of individuals with disabilities, others may not have a history of understanding and inclusion of people with disabilities. Considering the needs and goals of children within the framework of their cultural and socioeconomic background is a large part of providing effective ECI services to the family.

Finally, according to the Developmental Systems Model, ECI professionals must also consider child characteristics. Due to heterogeneous nature of children in ECI, it may be difficult to consider how disorder category, severity, and personality difference can affect cognitive and social development. Additionally, some disorders produce more of an impact on the health and resilience of a child than others. To put it simply, there are a large number of variables to consider when providing services to the child and family. However, it is essential to understand how stressors impact a family and how to reduce these stressors while navigating socioeconomic, biological, and cultural differences. Guralnick's Developmental Systems Model provides a helpful framework for ECI professionals considering these complicated issues (Guralnick, 2011.)

Benefits of Early Childhood Intervention

For early intervention service providers and parents of children with disabilities, the reasons underlying the need for quality early childhood intervention programs are obvious. Children with disabilities and their families represent a vulnerable population in need of services and resources, many of which can be provided through ECI. However, while enhancing the quality of life for children with disabilities is considered important, there are a number of other reasons why ECI programs are beneficial to the nation as a whole. Some of these are included in the goal section of the *IDEA Part C* legislation, for example: reduction in education costs by minimizing the need for special education, maximizing potential for the child to live independently as an adult, and reducing the potential of future medical costs (IDEA, 2004.) In terms of advocating for funding and resources to be allocated to ECI programs, relying on the notion that we have a moral obligation as a nation to provide for our most vulnerable citizens, of whom children with disabilities must be considered, is not always an effective argument. Benefits to the child and family for whom services are provided are important and must be considered along with benefits to the education system and economics and social welfare systems at large.

INDIVIDUAL BENEFITS

Few studies have looked at the long-term benefits of early childhood intervention for individual children with disabilities apart from family outcomes. Due to the heterogeneous nature of the population, it is difficult to examine what treatment factors make up successful interventions. Additionally, determining what constitutes ‘successful’ interventions means parsing out treatment categories (such as physical therapy, social

services, or speech therapy) as well as determining what interventions work for which disorder categories.

Sharkey and colleagues (Sharkey et al., 1990) examined how early referral impacts a child's developmental abilities. The authors studied 105 children with diagnoses of cerebral palsy. Fifty of the infants began treatment before the age of nine months, and fifty-five began treatment after 9 months. Researchers assessed and treated all of the children in the following areas: perceptual-fine motor skills, cognition, language, social-emotional, gross motor, and feeding. The program consisted of a visit to a child development center once a week for 90 minutes. Each child received occupational therapy, physical therapy, and speech therapy for both language and feeding. The authors also trained parents in interacting and handling their child. After 18 months, researchers found that the children that began the ECI program before the age of 9 months had an advantage in fine and gross motor skills, cognition, language and social-emotional skills. Across all areas assessed, children referred before the age of 9 months were one developmental area ahead of those referred later. This study indicates the importance of early referral and the effect it could have for children with cerebral palsy. Although cerebral palsy is just one disorder that ECI providers work with, it can be assumed that intervention from a very young age could be advantageous in a number of disorder categories research on other populations is needed to substantiate this assertion.

Unfortunately, few studies have measured the benefit of early intervention longitudinally, especially in comparison with no treatment. Manjemer (1998) outlines a few of the obstacles that interfere with evaluating the efficacy of early intervention

services in this manner. These include a lack of sensitive standardized tests, ethical considerations preventing the use of a control group, the wide variety of types of disabilities and degrees of severity, the small group sizes of children in need of early intervention, and the lack of consistency in what treatments are chosen for various developmental deficits. With the new emphasis on outcome reporting requirements, there may be an increase in literature describing the efficacy of ECI programs. However, these outcomes report on general improvements in broad developmental categories and do not require data on what specific treatment measure or assessments are used. In order to gain clarity on what treatments result in the largest developmental gains for the individual child, more studies addressing specific treatments within targeted disorder categories are necessary.

FAMILY SERVICE BENEFITS

Consistent with Guralnick's (2001) developmental systems model, ECI programs consider the family as the client, rather than simply the child. Although examining how ECI impacts the individual child is important, it is the family as a whole that must gain from ECI services according to public policy in this area. Recent studies have begun to evaluate how intervention affects the family as a whole, primarily using surveys. Bailey et al. (2005) examined survey data collected by the National Early Intervention Longitudinal Study (NEILS). NEILS collected a large amount of data on children involved in ECI programs from 1997 to 2007 in 20 different states. Part of the NEILS study was following up with parents of children involved in ECI near the child's third birthday, which would be the time they would be exiting ECI services.

By surveying 2,586 parents in 20 states, NEILS was able to collect a substantial amount of data regarding family outcomes related to ECI. The data was weighted to provide national averages. At the time of the interview, most of the children were between 20-45 months. 62% were eligible as a result of a developmental delay, 21% had a diagnosed condition, and 16.8% were at risk of a disability. 81% of survey responders, were the child's biological mother. The 40 minute interviews focused on 5 major questions regarding family outcomes

- Did early intervention enable the family to help your child grow, learn, and develop?
- Did early intervention enhance your family's perceived ability to work with professionals and advocate for services for your child?
- Did early intervention assist your family in building strong support systems?
- Did early intervention enhance an optimistic view of your family's future?
- Did early intervention enhance your family's quality of life?

(Bailey et. al, 2005)

Each question was followed with clarifying questions to gain more specific answers to the 5 general questions. For instance, when focusing how ECI enabled the family to help the child grow, learn, and develop, researchers found that 99% of responders agreed or strongly agreed that they knew how to take care of their child's basic needs. However, when asked if caregivers had a difficult time figuring out what to do with their child's behavior 46% agreed or strongly agreed, revealing a need for more

ECI programs to address behavior modification strategies. In terms of quality of life, 38% of responders considered their quality of life ‘excellent’, 28% considered it ‘very good’, 24% considered it ‘good’, 8% considered it ‘fair’, and less than 1% considered their quality of life as ‘poor’. Additionally, 82% of responders considered their view of the future for their families as ‘very good’ or ‘excellent’. Finally, 57% of responders considered their families as much better off than before intervention, 23% considered their families as better off, 16% considered their families as the same, and 1% considered them worse. In general, Bailey et al. (2005) found that most families of infants and toddlers with disabilities described themselves as “competent and confident in their ability to support their child, work with professionals, and gain access to formal and informal supports.”

The Bailey et al. (2005) study shows a primarily positive attitude of families who received ECI services, indicating that targeting families as the unit of treatment is an effective strategy. By continuing to educate and train families to provide intervention at home, ECI professionals can build on both research indicating that ECI is effective for children and research indicating that families benefit from services that assist them in understanding the needs of their children.

COST FOR FAMILIES AND SOCIAL PROGRAM COSTS

Families of children with disabilities may also face financial stressors related to the medical and daily care of their child. These stressors may include direct costs such as medical supplies, doctor’s visits, therapy services, or prescriptions, and indirect costs such as income lost due to one parent necessary to care for a child with disabilities or

wages lost due to necessary time off for appointments or meetings related to the child's care. In a review of studies calculating average direct costs to families, Stabile & Allen (2012) found that the average annual direct costs of having a child with severe disabilities range from \$108 – \$8742. This wide variation is due to differences in state policies on insurance coverage, income variances, and disability differences Overall, 40% of families surveyed spent more than \$500 annually in direct costs related to their child's disabilities. Stabile & Allen (2012) also found that families of children with mental health disabilities accrued a higher cost than those with physical disabilities. In terms of indirect costs, Stabile & Allen (2012) found that mothers of children with disabilities were 3-11% less likely to work if they had a child with disabilities, and 13-15% less likely to work if they had a child with severe disabilities. In terms of costs to social programs, programs most impacted by costs related to children with disabilities are Medicaid, Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), and Special Education costs. Annually, families of children with disabilities averaged \$4,408 in increased Medicaid costs, \$1,185 in increased SSI, \$283 in TANF, and \$13, 826 in Special Education costs (Stabile & Allen, 2012.)

It is important to note that receiving ECI services does not mean that children with disabilities will not accrue future direct, indirect, and social program costs. However, service provision can benefit the family in dealing with financial difficulties as one of the potential “stressors” that can impact parent-child interaction and child development. Additionally, service provision can potentially lead to improvement in a child's developmental abilities, which could offset costs in the future.

Demographics of Children in ECI

A total of 336,895 children birth-2 years old were served through Early Childhood Intervention programs in 2011 (ECTA Center, 2014.) This number includes all 50 states, U.S. territories, and outlying areas. As part of reporting requirements, ECI programs collect information on ethnic/racial statistics, which are included in yearly child-count tables. Table 3 shows national demographic information from the year 2011.

Table 3: Nation-wide Demographics Birth- 3 Children in ECI (2011)

Hispanic	American Indian/Alaskan Native	Asian	African-American	Pacific Islander/Hawaiian	White	Two or More Races	Total
85,129	2,719	11,279	46,397	896	180,315	10,160	336,895

Source: *Part C child count*, Technical Assistance and Dissemination Network.

However, while state-by-state race/ethnicity breakdowns are available for *IDEA Part B*, they are not available for children in *Part C*. This specific information would be beneficial for comparing state population demographics with demographics on children served in ECI.

Additionally, there is no available national data on the socioeconomic statuses (SES) of families participating in ECI. Information on the economic stability of families seeking service is important information for providers. Guralnick notes that financial difficulties can be a family stressor (Guralnick, 2011.) National and state data on the SES of families participating in ECI would help researchers understand what additional resources might be necessary for ECI programs. If most of the families receiving services are in economic need, then broadening at-risk categories to include children living below

the poverty line could help professionals target both a child's disability and the disadvantages that may come with a low SES status.

Eligibility

Another area of wide variation between states is eligibility criteria. Due to a lack of clear federal guidelines, standards for eligibility are determined and published by each state. However, even within states, eligibility criteria can be vague, leaving decisions up to local service providers. With this lack of clarity, families and service providers wishing to transfer to new ECI programs may find difficulty adjusting to new criteria for eligibility.

While eligibility criteria remain unclear, federal legislation does require the use of general evaluations, assessments, and informed clinical opinion in order to establish eligibility for services (IDEA, 2004.) Informed clinical opinion is the qualitative opinion of a professional based on experience with other infants and toddlers with similar conditions. Allowing for informed clinical opinion to establish eligibility, along with or in place of standardized assessments creates opportunities for professionals to grant eligibility to infants and toddlers who may not have qualified based on the standardized test chosen by the state as eligibility criteria. For instance, if a child scores outside of the range of eligibility on a language test, but clearly demonstrates atypical behaviors like perseveration or self-stimulation, an informed clinician may make the case that the child is displaying characteristics of a developmental delay (Lucas & Shaw, 2007.)

In addition to informed clinical opinion, many states have chosen specific standardized assessments to use for establishing eligibility. For instance, Texas uses the Battelle Developmental Inventory, 2nd edition (BDI-2) to assess infants and toddlers for ECI eligibility. Using this type of standardized test can be helpful because it provides a clear number for clinicians to compare against typically developing children. However, it is important to consider that in Texas, about 50% of children receiving services are Hispanic or Latino, and many of them primarily use Spanish in the home (Texas Department of Assistance and Rehabilitative Services, 2012.) The Spanish version of the BDI-2 is a translation of the English version and is not normed on Spanish speaking children. Therefore, when determining eligibility for Spanish-speaking children in Texas, clinicians must consider that the test may not be a reliable indicator of delay or disability (Kester & Label, 2013.) In this instance, the use of “informed clinical opinion” becomes crucial. ECI providers who are knowledgeable about bilingual populations can make clinical judgments that will be considered along with test scores. This is especially important in Texas, where the one standardized test used is not appropriate for bilingual or monolingual Spanish populations.

In addition to choosing appropriate standardized tests, states must also decide whether or not to include “at-risk” children as eligible. At-risk in this context refers to children who are at-risk of a delay due to biological or environmental circumstances. For instance, children with low birth-weights, prenatal drug exposure, or a history of abuse or neglect. Additionally, family factors may also be included, such as homelessness or parents less than 18 years of age. However, only 6 of the states and territories

participating in *IDEA Part C* allow for at-risk eligibility (Ringwalt, 2012.) The following chart describes the eligibility criteria for each state included in this review.

Table 4: Chart of State Eligibility Criteria

State	Level of Delay Required for Eligibility
Texas	25% delay in one or more developmental areas (Specifies Battelle Developmental Inventory, 2nd Edition, BDI-2)
New Jersey	33% delay or 2.0 SD below the mean in one developmental area or 25% delay or 1.5 SD below the mean in two or more developmental areas Includes adjusts for premature infants
California	<24 months: 33% delay in one or more areas of development >24 months: 50% delay in one area of development or 33% delay in two or more areas of development
Alabama	25% or more delay in one developmental area (cognitive, physical, communicative, social, emotional or adaptive development)
Montana	50% delay in one developmental area or 25% delay in two developmental areas
North Dakota	50% below age norms in one developmental area or 25% below age norms in two developmental areas
Maine	2.0 or more SD below the mean in one developmental area or 1.5 SD below the mean in at least two developmental areas
Mississippi	25% delay or 1.5 SD below the mean in one or more developmental areas
New York	33% or 12 month delay or 2SD below the mean in one or more functional areas or 25% delay or 1.5 SD below the mean in each of two areas
Ohio	1.5 SD below the mean in one developmental area

Source: *Summary of states' and territories' definitions of/criteria for IDEA Part C eligibility*, Ringwalt, S.

No states included in this review allow for at-risk factors (such as poverty or parental drug use) to be included in eligibility considerations. The only state that allows for eligibility based on prematurity is New Jersey. All the states in this study use a

standard deviation or percent delay cutoff to establish eligibility. However, most states do not separate delay requirements by area of disability. For instance, in Ohio, the requirement for eligibility is 1.5 standard deviations below the mean in one developmental area. This requirement means that, without regard to informed clinical opinion, a child in Ohio who is 1.5 standard deviations below the mean on a standardized child speech or language assessment, would be eligible for services under the developmental area of speech or language. The majority of states use these types of general measures in their eligibility criteria.

Puerto Rico has a stricter eligibility definition, and requires specific eligibility standards per developmental domain. Additionally, if a child shows a delay in one category, plus a 1.5 SD or 25% developmental delay in any other category, they are also eligible for services. Although this stricter criterion may lead to fewer infants and toddlers receiving services, it also provides a clearer picture of what clinicians and professionals are looking for when assessing children for eligibility.

Table 5: Puerto Rico Eligibility Criteria by Developmental Domain

Motor Skills	Visual and Hearing Impairment	Cognitive Skills	Communication	Social-Emotional	Adaptive
2.0 SD or 33% delay	Informed clinical opinion	2.0 SD or 33% delay	2.0 SD or 33% delay	Informed clinical opinion	Informed clinical opinion

Source: *Summary of states' and territories' definitions of/criteria for IDEA Part C eligibility*, Ringwalt, S.

Evidence Based Practice in ECI

Evidence-based practice (EBP) began in clinical medicine as a framework for choosing appropriate treatment methods (Dollaghan, 2004.) One EBP proposition suggests that clinical opinion be viewed with skepticism when it contradicts with scientific research studies. Although clinical opinion can be an important part of treatment development, it is important that professionals within the field of 0-3 intervention do not solely rely on clinical opinion when choosing and implementing treatments. Additionally, when evaluating research it is important for an informed clinician to look at studies with caution. Understanding the limitations and weaknesses of available research can help clinicians determine if a study or studies are reliable and if the findings can apply to their specific client. For instance, clinicians in ECI need to be aware of the SES, cultural, and linguistic diversity of their clients before they make treatment decisions. As previously mentioned in the *Eligibility* section, decisions on what standardized tests to use as eligibility measures should include consideration of test reliability and validity, especially in regards to an ever growing bilingual population across the United States as well as related to low SES families, as most research findings are based on study of middle to upper middle class children.

Decisions made on higher EBP level studies can also inform government bodies that make decisions regarding social welfare programs such as ECI. What is often debated among people responsible for the funding and implementation of ECI programs is not whether or not the service is needed, but whether or not it is efficacious. In times of economic difficulty, an emphasis is placed on cutting underperforming government

programs. As a result, ECI programs must utilize the highest possible level of evidence-based practices available for the assessment and therapy tools they pick for clients and families. Additionally, in order to maintain federal funding, ECI programs must report on specific outcomes designed by the ECO center. In principle, these outcomes would inform offices and committees responsible for funding and regulating IDEA Part C on how each state is performing.

METHODS

Efficacy of government programs has become a driving factor in how lawmakers fund and advocate for social welfare programs such as *IDEA Part C*. In order to determine whether or not programs like *IDEA Part C* are beneficial for the children they serve and for the nation as a whole, it is important to examine the results of services provided by ECI programs. Additionally, determining if variables such as population, funding, and enrollment impact outcome results is also important in understanding what makes ECI programs effective. However, due to the autonomy given to state ECI programs there are often discrepancies between how data is collected and reported. In order to determine whether or not a state's ECI program can be considered successful, it is important to first look at outcome result differences and determine if certain variables impact outcome results.

The data for this evaluation are available in public records compiled by states as well as at the national level. As of 2009, states and territories participating in ECI are required to publicly report data collected as part of the Office of Special Education's push towards widespread accountability for its programs (Hebbeler & Rooney, 2009.) It is important to note that the Office of Special Education (OSEP) does allow sampling. Therefore, outcome results do not include every child with an Individualized Family Service Plan. Most states use a percentage of children included, in a sampling method

outlined by the OSEP. However, the goal is to increase the number of children included in outcome data each year.

With the exception of service provision times, settings, and family and child outcomes, there are not many requirements on what additional information states need to report. Although most states and territories collect demographic data such as race and ethnicity, only nation-wide race and ethnicity percentages are available to the public via the Early Childhood Technical Assistance Center website. In addition, although federal funding information is easily accessible, states and territories are not required to report their state and private funding amount via their ECI websites. Some private organizations, such as the Easter Seals, collect funding data in order to raise support and awareness of ECI, but how they found state-by-state funding amounts is unknown (Easter Seals Disabilities Services, n.d.)

Using required outcome state data was the most efficient way to look at the yearly progress of select ECI programs, because all states and territories participating are required to report specific data that must be easily accessible. Although collecting information on more factors such as the SES of participants, linguistic and cultural variances, and state and private funding amounts would be beneficial when determining what makes an ECI program effective, that information is not consistently available by state or territory.

Data related to outcome results was gathered from the U.S. Department of Education website (U.S. Department of Education, 2014), the U.S. Department of Commerce Census website (U.S. Department of Commerce, 2014), the Early Childhood

Technical Assistance Center (2014), and a document provided by the Easter Seals (Easter Seals, n.d.) In order to show accountability and progress in publicly funded programs, the Office of Special Education has made this information available and accessible by the public. The results in this report are made up of three child outcomes in two categories, and three family outcomes. Category 1 outcomes include children who began their ECI program below age expectations and made a substantial gain. Category 2 outcomes include children who exited their ECI program functioning at the level of the age equivalent level of their typically developing peers. Child outcomes are reported in percentages using a formula developed by the Early Childhood Outcomes Center. This formula is described in the *Methods* section. Family outcomes are based on response percentages. Child and family outcomes are presented in the following tables. These tables include outcomes by general population, outcomes by 0-3 population, outcomes by children served in ECI, outcomes by federal funding, outcomes by state funding, and a summary table for each category in the child outcomes and for the family outcomes.

Outcomes

In order to determine the efficacy of ECI programs, the Department of Education began funding the Early Childhood Outcomes Center (ECO) whose purpose was to assist in meeting with stakeholders and practitioners in order to develop appropriate outcomes to measure the success of ECI programs by state and territories (Hebbeler & Rooney, 2009.) The ECO determined two sets of outcomes. One set of outcomes related to

children, and one set related to families. This report will focus on 1) three child outcomes in two categories and 2) three family outcomes. Though states must report on a variety of other indicators, such as timely service, the child and family outcomes relate most to the role of a Speech-Language Pathologist in terms of service goals.

CHILD OUTCOMES

States and territories are required to report outcome data based on two ‘Summary Statements’, but for this sake of this report they will be referred to as Categories. The specific language describes Category 1 as follows “of those infants and toddlers who entered or exited early intervention below age expectations in each outcome, the percent who substantially increased their rate of growth by the time they turned 3 years of age or exited the program” (U.S. Department of Education, 2014.) Category 1 refers to the percent of children who began below age expectations and made substantial or unexpected gains. This reporting of data does not necessarily mean the children reached age expectations, the category simply reports on the number of children that made demonstrable gains.

Table 6: Child Outcomes

Child Outcome A	Positive social-emotional skills (including positive social relationships)
Child Outcome B	Acquisition and use of knowledge and skills (including early language/communication)
Child Outcome C	Use of appropriate behaviors to meet their needs

Source: *Part C State Performance Plan (SPP) and Annual Performance Report (APR): Part C Indicator Measurement Table*, U.S. Department of Education.

In order to determine a specific outcome percentage for child Outcomes in Category 1, states are encouraged to use a specific formula. This formula separates children with Individualized Family Service Plans (IFSP) into five sets.

Table 7: Suggested Breakdown of ECI participants by COSF

Percentage of children who:

A	Did not improve in functioning
B	Improved in functioning, but not sufficient enough to move nearer to functioning comparable to same-aged peers
C	Improved functioning to a level nearer to same-aged peers but did not reach it
D	Improved functioning to a level comparable to same-aged peers
E	Maintained functioning at a level comparable to same-aged peers

For Category 1, the outcome results are calculated using the following formula:

$$C + D / (A+B+C+D) \times 100$$

Therefore, Category 1 child Outcome percentages are determined by adding the number of infants and toddlers in set C, plus the number of infants and toddlers in set D, divided by the number of infants and toddlers in sets A, B, C, and D, multiplied by 100.

Category 2 includes “the percent of infants and toddlers who were functioning within age expectations in each outcome by the time they turned 3 years of age or exited the program” (U.S. Department of Education, 2014.) This category of reporting refers to the number of children who actually exited the program at age level in the reported outcome. This could also include children who entered at appropriate age levels.

For Category 2, the outcome results are calculated using the following formula:

$$D + E / (A+B+C+D+E) \times 100$$

Therefore, Category 2 child outcome percentages are determined by adding the number of infants and toddlers in set E, plus the number of infants and toddlers in set E, divided by the number of infants and toddlers in sets A, B, C, D, and E, multiplied by 100.

FAMILY OUTCOMES

States are also required to report results on three family outcomes. These outcomes refer to the percentage of responders who believe that ECI has helped families increase in their education and awareness, how to communicate well with their child, and helped them to help their child develop and learn.

Table 8: Family Outcomes

Family Outcome D	Know their rights
Family Outcome E	Effectively communicate their child’s needs
Family Outcome F	Help them to help their child develop and learn

Source: *Part C State Performance Plan (SPP) and Annual Performance Report (APR): Part C Indicator Measurement Table*, U.S. Department of Education.

While collecting and reporting data on each of these outcomes is a federal requirement, there is no standard by which states must collect this data. Templates, guidelines, and suggested methods have been provided by the Early Childhood Technical Assistance Center (ECTAC) but they are optional. Nationally, 73% of states and territories use the recommended Child Outcomes Summary Form (COSF) to collect and interpret outcome data, 13% use a single statewide assessment, 5% use online assessment systems, and 9% use other approaches (Kasprzak, Rooney, Colgan, Kahn, & Hebbeler, 2010.)

Data Collection

STATE AND TERRITORIES

The states and territory selected for this study were based on geographic location and general population counts based on census projections for 2011. Because federal funding is calculated based on the population of children birth-3 in the state, states with more children birth-3 get more federal money. This factor led to the decision to include one low population and one high population state per region. Two states were chosen from four geographic regions, and one U.S. territory was included. The following table shows which states were chosen per region and the general population counts per state and territory for 2011 for evaluation here.

Table 9: States Chosen Per Region and General Population Counts

Region	State/Territory	Population (2011)
<i>South</i>	Texas	25,674,681
	Mississippi	2,978,512
<i>North</i>	New York	19,465,197
	New Jersey	8,821,155
<i>West</i>	California	37,691,912
	Montana	998,199
<i>Midwest</i>	Ohio	11,544,951
	North Dakota	683,932
<i>Territory</i>	Puerto Rico	3,706,690

Source: Annual population estimates of the resident population for the United States, regions, states, and Puerto Rico: April 1, 2010 to July 1, 2011, U.S. Department of Commerce.

POTENTIAL FACTORS INFLUENCING OUTCOMES

A number of factors could potentially impact the progress of children and families participating in ECI, as currently measured by State Performance Plan Outcomes. One of these factors is birth-3 population. Federal funding per state is determined by the number

of infants and toddlers birth-3 in each state. It is important to note, that this figure refers to the general population, not to infants and toddlers with disabilities.

Federal funding is actually not intending to be the sole source of funding. Federal funds are meant to provide help for states in terms of administration, paperwork, and other implementation means, not actually related to direct service provision. This report examines outcome results as a function of federal funding and of birth-3 general population statistics according to 2011 census projections.

Another factor that could influence outcomes is the number of children currently participating in ECI. It is important to note that only children enrolled in ECI for 6 months or longer are actually included in outcome data. However, large enrollment numbers can put economic and staffing strains on ECI programs that could influence outcomes as a whole. Additionally, while federal funding is based on birth-3 numbers in the general population, sometimes ECI enrollment numbers are not proportional to birth-3 numbers in the general population. The procedure means some states and territories may receive more funding than others, even if they have lower actual enrollment numbers.

State funding is another significant aspect of ECI implementation. However, as previously mentioned little information regarding funding by state grants is available to the public. Often, those budgets are included in the overall education budget and Part B and Part C are included as one amount. In this report, data on state funding is provided through *Make the First Five Count* report by the Easter Seals, an organization frequently involved with ECI programs (Easter Seals, n.d.) It is important to note that while the

Easter Seals report includes information on how this organization obtained state funding data, all of the links to funding data are currently unavailable, due to ongoing data website consolidations.

Finally, variances in data collect methods could also influence result outcomes. Although the Early Childhood Outcomes Center has developed specific materials for state use in data collection, states are not required to use them. Of the states chosen for this study, only North Dakota and New Jersey choose to use a statewide assessment to determine child outcome results. California uses a system described as ‘other.’ Texas, Mississippi, New York, Montana, Ohio, and Puerto use the Child Outcomes Summary Form, which was developed by the Early Childhood Outcomes Center.

To report family outcomes, Texas, Mississippi, California, Montana, and North Dakota use the Family Outcomes Survey developed by the Early Childhood Outcomes Center. Ohio, Puerto Rico, New York, and New Jersey use a different survey form which was developed by The National Center for Special Education Accountability Monitoring. (Kasprzak, Rooney, Colgan, Kahn, & Hebbeler, 2010.)

RESULTS

The following results include child outcomes in two categories, and family outcomes. As mentioned in the *Methods* section, data on outcomes was gathered from multiple U.S. government websites. Results are primarily gathered from 2011, however some population data was only available from 2012. Those instances are noted within the able explanations..

Child Outcomes: Category 1

Table 10 shows the three child outcomes for children who began below age expectations and made substantial or unexpected gain (Category 1.) There is no obvious relationship between the general state population and any of the three child outcomes in Category 1. While North Dakota is the least densely populated, outcome results for B and C are actually greater than those in the highly populated California.

General population does not predict child outcome results in Category 1.

Table 10: Child Outcomes by General Population, Category 1

State/Territory by General Population	Population	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
North Dakota	683,932	35.8%	56.7%	58.8%	50.4%	58.8-35.8%
Montana	998,199	62%	67%	61%	63.3%	67-61%
Maine	1,328,188	40%	39%	51%	43.3%	51-39%
Mississippi	2,978,512	83%	82%	82%	82.3%	83-82%
Puerto Rico	3,706,690	39.4%	32.5%	28.3%	33.4%	39.4-32.5%
New Jersey	8,821,155	42.61%	82.42%	68.86%	64.6%	82.42-42.61%
Ohio	11,544,951	55.3%	56.8%	57.6%	56.5%	57.6-55.3%
New York	19,465,197	65%	69%	75%	69.6%	75-65%
Texas	25,674,681	70.3%	74.6%	75.6%	73.5%	75.6-70.3%
California	37,691,912	45.4%	49%	39.4%	44.6%	49-39.4%

Table 11 shows the three child outcomes for Category 1 by birth-3 population. This population is significant because the birth-3 population per state determines how much federal funding the state gets for IDEA Part C. Again, though California has the highest birth-3 population, it demonstrates one of the lowest mean of outcomes, ahead of only Puerto Rico and Maine. Although the outcomes in this section are from the 2011 state report, the birth-3 population data is from 2012, the only year with available data. Birth to 3 populations does not predict child outcomes in Category 1.

Table 11: Child Outcomes by Birth- 3 Population in 2012, Category 1

State/Territory by Birth- 3 Population	0-3 Population	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
North Dakota	27, 529	35.8%	56.7%	58.8%	50.4%	58.8-35.8%
Montana	35, 876	62%	67%	61%	63.3%	67-61%
New Jersey	85, 610	42.61%	82.42%	68.86%	64.6%	82.42-42.61%
Puerto Rico	123, 565	39.4%	32.5%	28.3%	33.4%	39.4-28.3%
Maine	188, 266	40%	39%	51%	43.3%	51-39%
Mississippi	224, 419	83%	82%	82%	82.3%	83-82%
Ohio	409, 393	55.3%	56.8%	57.6%	56.5%	57.6-44.3%
New York	710, 562	65%	69%	75%	69.6%	75-65%
Texas	1, 157, 004	70.3%	74.6%	75.6%	73.5%	75.6-70.3%
California	1, 527, 403	45.4%	49%	39.4%	44.6%	49-39.4%

Table 12 reflects outcomes by the number of children served in ECI per state in the year 2011 in Category 1. It might be assumed that due to large caseloads, states may have a more difficult time reaching outcome goals. This is reflected in states like California and Ohio, which both have relatively large caseloads and are on the lower end of outcome means. However, Texas has the second highest mean of outcomes, and relatively high outcome percentages in each category, despite having the third largest caseload. This indicates that number of children enrolled in ECI may not predict Outcome results.

The number of children served annually in ECI does not lead to higher child outcomes in Category 1.

Table 12: Child Outcomes by Number of Children served, Category 1

State/Territory by Children Served in 2011	Children Served	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
Montana	728	62%	67%	61%	63.3%	67-61%
North Dakota	922	35.8%	56.7%	58.8%	50.4%	58.8-35.8%
Maine	982	40%	39%	51%	43.3%	51-39%
Mississippi	2,122	83%	82%	82%	82.3%	83-82%
Puerto Rico	4,883	39.4%	32.5%	28.3%	33.4%	39.4-28.3%
New Jersey	10, 570	42.61%	82.42%	89.45%	64.6%	89.45-42.61%
Ohio	14, 103	55.3%	56.8%	57.6%	56.5%	57.6-55.3%
Texas	23, 613	70.3%	74.6%	75.6%	73.5%	75.6-70.3%
New York	28, 645	65%	69%	75%	69.6%	75-65%
California	32, 575	45.4%	49%	39.4%	44.6%	49-39.4%

Table 13 shows the outcomes by federal funding allocations for Category 1. Increased federal funding does not appear to relate to higher Outcome percentages. This is particularly obvious for Mississippi. Though Mississippi receives only \$4,372,987 in

federal funds, it has the highest mean of outcomes and the highest percentage in socio-emotional skills.

Federal funding does not predict higher child outcome results in Category 1.

Table 13: Child Outcomes by Federal Funding, Category 1

State/Territory by Federal Funding Amount	Federal Funding Amount (Dollars)	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
Montana	2,150,355	62%	67%	61%	63.3%	67-61%
Maine	2,151,692	40%	39%	51%	43.3%	51-39%
North Dakota	2,153,794	35.8%	56.7%	58.8%	50.4%	58.8-35.8%
Mississippi	4,372,987	83%	82%	82%	82.3%	83-82%
Puerto Rico	4,383,906	39.4%	32.5%	28.3%	33.4%	39.4-28.3%
New Jersey	10,720,012	42.61%	82.42%	89.45%	64.6%	89.45-42.61%
Ohio	14,296,808	55.3%	56.8%	57.6%	56.5%	57.6-55.3%
New York	23,867,174	65%	69%	75%	69.6%	75-65%
Texas	39,962,532	70.3%	74.6%	75.6%	73.5%	75.6-70.3%
California	53,574,884	45.4%	49%	39.4%	44.6%	49-39.4%

Table 14 shows child outcomes by state funding for Category 1. State funding is more likely to directly apply to service provision than federal funding, which is frequently used for administrative costs. It is important to note that for North Dakota, there is no state ECI budget, and instead the state must rely on federal and private funding. Additionally, private funding for ECI programs is not directly available to the public, so the total amount of funds state ECI programs receive may differ from the amounts in this table. However, based on state budget allocations, there does not appear to be a relationship between funding amount and outcome results. Mississippi, which has one of the lowest state ECI budgets, has the highest mean of outcomes. However, New Jersey has a very high state budget amount and two of the highest outcome percentages in

both acquired knowledge and skills (outcome B) and use of appropriate behavior to meet needs (outcome C.)

For the states with available data, higher funding does not indicate higher child outcome results in Category 1.

Table 14: Child Outcomes by State Funding, Category 1

State by State Funding Amounts	State Funding Amount (Dollars)	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
North Dakota*	0	35.8%	56.7%	58.8%	50.4%	58.8-35.8%
Mississippi	221,945	83%	82%	82%	82.3%	83-82%
Montana	2,700,000	62%	67%	61%	63.3%	67-61%
Maine	27,900,000	40%	39%	51%	43.3%	51-39%
Texas	33,300,000	70.3%	74.6%	75.6%	73.5%	75.6-70.3%
Ohio	33,700,000	55.3%	56.8%	57.6%	56.5%	57.6-55.3%
California	72,800,000	45.4%	49%	39.4%	44.6%	49-39.4%
New Jersey	88,400,000	42.61%	82.42%	89.45%	64.6%	89.45-42.61%
New York	164,000,000	65%	69%	75%	69.6%	75-65%

*North Dakota receives only federal and private funding

*No information available for Puerto Rico

Table 15 shows the average and range of percentages for each Outcome in Category 1. The three Outcomes in category 1 are A) positive socio-emotional skills, B) acquired knowledge and skills, and C) use of appropriate behavior to meet their needs. On average, of the children who began below age expectations and made substantial or unexpected gains, 53.8% showed an increase in positive socio-emotional skills, 60.9% showed an increase in acquired knowledge and skills, and 61.8% showed an increase in the use of appropriate behavior to meet their needs. However, each of these categories has a relatively large range. This is likely due to significant differences in how states

measure progress. This includes differences in standardized tests, ranking scales, personnel taking data, and definitions of what constitutes and increase.

Table 15: Summary Table of Child Outcomes, Category 1

	Outcome A	Outcome B	Outcome C
Mean of Outcomes	53.8%	60.9%	61.8%
Range of Outcomes	83-35.8%	82.42-39%	89.45-39.4%

Child Outcomes: Category 2

Table 16 shows child outcomes by general population in Category 2. Category 2 describes the percentage of children who exited their ECI program functioning at the age equivalent level of their typically developing peers. In this instance, North Dakota, the lowest populated state in the report, had the lowest percentage result in outcome A, positive socio-emotional emotional skills. However, North Dakota’s percentage result in outcome C reflected a relatively high percentage of children who used appropriate behaviors to meet their needs at an age equivalent that matched their typically developing peers. Additionally, while New Jersey showed the highest percentage result for both outcome A and outcome C, their percentage result for outcome B was significantly lower. General population does not predict child outcome results in Category 2.

Table 16: Child Outcomes by General Population, Category 2

State/Territory by General Population	General Population	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
North Dakota	683,932	39.7%	37%	61.1%	45.9%	61.1-37%
Montana	998,199	51%	44%	54%	49.7%	54-44%
Maine	1,328,188	50%	26%	43%	39.7%	50-26%
Mississippi	2,978,512	65%	66%	65%	65.3%	66-65%
Puerto Rico	3,706,690	53.9%	18.7%	43.9%	38.8%	53.9-18.7%
New Jersey	8,821,155	83.6%	56.4%	83.1%	74.4%	83.6-56.4%
Ohio	11,544,951	66.6%	61.2%	61.2%	63%	66.6-61.3%
New York	19,465,197	48%	44%	41%	44.3%	48-41%
Texas	25,674,681	60.8%	52%	58.7%	57.2%	60.8-52%
California	37,691,912	66%	51.8%	61.3%	59.7%	66-51.8%

Table 17 shows child outcomes by birth-3 population in Category 2. This population data is from 2012, the only year it was available. Lower performing states in this category such as Puerto Rico and Maine, fall in the middle of the birth-3 population numbers in this report. Puerto Rico's outcome B (acquisition of knowledge and skills) result is the lowest percentage result of child outcomes in both categories, however the result from Puerto Rico in outcome B is comparable to New York, which has one of the highest birth- 3 population.

Larger birth to three population does not lead to greater child outcome results in Category 2.

Table 17: Child Outcomes by Birth-3 Population in 2012, Category 2

State/Territory by Birth- 3 Population	0-3 Population	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
North Dakota	27, 529	39.7%	37%	61.1%	45.9%	61.1-37%
Montana	35, 876	51%	44%	54%	49.7%	54-44%
New Jersey	85, 610	83.6%	56.4%	83.1%	74.4%	83.6-56.4%
Puerto Rico	123, 565	53.9%	18.7%	43.9%	38.8%	53.9-18.7%
Maine	188, 266	50%	26%	43%	39.7%	50-26%
Mississippi	224, 419	65%	66%	65%	65.3%	66-65%
Ohio	409, 393	66.6%	61.2%	61.2%	63%	66.6-61.2%
New York	710, 562	48%	44%	41%	44.3%	48-41%
Texas	1, 157, 004	60.8%	52%	58.7%	57.2%	60.8-52%
California	1, 527, 403	66%	51.8%	61.3%	59.7%	66-51.8%

Table 18 shows the child outcomes by number of children 0-3 served in 2011 in Category 2. In outcome A some of the lower performing states, such as North Dakota, Maine, and Montana also have a relatively low number of children enrolled in ECI. However, New York, which has the second highest enrollment had the second lowest percentage in outcome A. Similarly, in outcome B North Dakota, Montana, and Maine had relatively low percentage results, but New York also showed a low performance in outcome B despite a high enrollment number.

Number of children enrolled in ECI programs in 2011 does not predict higher child outcome results in Category 2.

Table 18: Child Outcomes by Number of Children 0-3 served, Category 2

State/Territory by Children Served in 2011	Children Served	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
Montana	728	51%	44%	54%	49.7%	54-44%
North Dakota	922	39.7%	37%	61.1%	45.9%	61.1-37%
Maine	982	50%	26%	43%	39.7%	50-26%
Mississippi	2,122	65%	66%	65%	65.3%	66-65%
Puerto Rico	4,883	53.9%	18.7%	43.9%	38.8%	53.9-18.7%
New Jersey	10, 570	83.6%	56.4%	83.1%	74.4%	83.6-56.4%
Ohio	14, 103	66.6%	61.2%	61.2%	63%	66.6-61.2%
Texas	23, 613	60.8%	52%	58.7%	57.2%	60.8-52%
New York	28, 645	48%	44%	41%	44.3%	48-41%
California	32, 575	66%	51.8%	61.3%	59.7%	66-51.8%

Table 19 shows child outcomes by federal funding amounts in Category 2. As previously mentioned, federal funds are generally not used for direct service provision and instead are intended for administrative purposes. Federal funding amount does not appear to result in higher outcome percentages, as evident by the relatively lower results for Category 2 of New Jersey, despite high federal funding compared to a state such as Mississippi, which a high mean of outcomes but a mid-level federal funding amount. Federally funding amount does result in higher child outcome results for Category 2.

Table 19: Child Outcomes by Federal Funding Amounts, Category 2

State/Territory by Federal Funding Amount	Federal Funding Amount (Dollars)	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
Montana	2,150,355	51%	44%	54%	49.7%	54-44%
Maine	2,151,692	50%	26%	43%	39.7%	50-26%
North Dakota	2,153,794	39.7%	37%	61.1%	45.9%	61.1-37%
Mississippi	4,372,987	65%	66%	65%	65.3%	66-65%
Puerto Rico	4,383,906	53.9%	18.7%	43.9%	38.8%	53.9-18.7%
New Jersey	10,720,012	83.6%	56.4%	83.1%	74.4%	83.6-56.4%
Ohio	14,296,808	66.6%	61.2%	61.2%	63%	66.6-61.2%
New York	23,867,174	48%	44%	41%	44.3%	48-41%
Texas	39,962,532	60.8%	52%	58.7%	57.2%	60.8-52%
California	53,574,884	66%	51.8%	61.3%	59.7%	66-51.8%

Table 20 shows child outcomes by state funding amounts in Category 2. As previously mentioned, North Dakota does not receive state funding and there is no available information for Puerto Rico’s funding apart from the federal allocation. Similar to previous results, state funding does not seem to impact outcome results. North Dakota, which receives no state funding had a mean of outcomes 1.6% higher than the state with the highest state funds, New York.

For the states in which state funding information was available, state funding did not predict higher child outcome results for Category 2.

Table 20: Child Outcomes by State Funding Amounts, Category 2

State by State Funding Amounts	State Funding Amount (Dollars)	Outcome A	Outcome B	Outcome C	Mean of Outcomes	Range of Outcomes
North Dakota*	0	39.7%	37%	61.1%	45.9%	61.1-37%
Mississippi	221,945	65%	66%	65%	65.3%	66-65%
Montana	2,700,000	51%	44%	54%	49.7%	54-44%
Maine	27,900,000	50%	26%	43%	39.7%	50-26%
Texas	33,300,000	60.8%	52%	58.7%	57.2%	60.8-52%
Ohio	33,700,000	66.6%	61.2%	61.2%	63%	66.6-61.2%
California	72,800,000	66%	51.8%	61.3%	59.7%	66-51.8%
New Jersey	88,400,000	83.6%	56.4%	83.1%	74.4%	83.6-56.4%
New York	164,000,000	48%	44%	41%	44.3%	48-41%

*North Dakota receives only federal and private funding

*No information available for Puerto Rico

Table 21 shows the means and ranges for each of the child outcomes in Category 2. Compared to Category 1, Category 2 showed lower percentages in outcomes B and C, but a slightly higher result in outcome A.

Table 21: Mean and Range of Child Outcomes, Category 2

	Outcome A	Outcome B	Outcome C
Mean of Outcomes	58.5%	45.7%	57.2%
Range of Outcomes	83.6-39.7%	66-26%	74.4-39.7%

Overall, both outcome A and outcome C included average results above 50%. However, this is an expected result. Category 1 includes children who started below expectations and made substantial gains, whereas Category 2 includes children who excelled at age level, which is a more difficult achievement.

Family Outcomes

Family Outcomes reflect the percentage of people who believed ECI has helped their family D) know their rights, E) effectively communicate their child’s needs and F) help their child to grow and learn.

Table 22 reflects family outcomes by general population. There is no obvious relation between general population size and family outcome percentages. The lowest populated state, North Dakota, and the highest populated state had relatively consistent outcome percentages. It is interesting to note that although New Jersey has the highest mean of the three child outcomes in Category 2, it has the lowest mean of the three family outcomes. These results indicates that although more children appear to be exiting ECI at their age equivalents relative to child outcomes, family outcomes are rated slightly lower compared to other states. Thus child and family outcomes may be relatively independent of one another based on these results.

Higher general state populations do not indicate higher family outcome results.

Table 22: Family Outcomes by General Population

State/Territory by General Population	General Population	Outcome D	Outcome E	Outcome F	Mean of Outcomes	Range of Outcomes
North Dakota	683,932	88%	94%	90%	90.7%	94-88%
Montana	998,199	95%	97%	96%	96%	97-95%
Maine	1,328,188	87.8%	88%	94%	89.9%	94-87.8%
Mississippi	2,978,512	92%	92%	89%	91%	92-89%
Puerto Rico	3,706,690	95.6%	95%	98%	96.2%	98-95%
New Jersey	8,821,155	70.9%	68.9%	81.8%	73.9%	81.8-68.9%
Ohio	11,544,951	86.3%	91.9%	90.75%	89.6%	91.9-86.3%
New York	19,465,197	75.2%	70%	83%	76.1%	83-75.2%
Texas	25,674,681	85%	87%	83.7%	85.2%	87-83.7%
California	37,691,912	82%	89%	92%	87.7%	92-82%

Table 23 shows family outcomes by the birth-3 population in 2012. With the exception of New Jersey, the lower birth-3 populated states tended to have slightly higher mean family outcome percentages than those with higher birth-3 rates. However, these differences are very small and not obvious in the individual outcome categories.

Birth to three population does not seem to predict family outcome results.

Table 23: Family Outcomes by Birth-3 Population in 2012

State/Territory by Birth- 3 Population	0-3 Population	Outcome D	Outcome E	Outcome F	Mean of Outcomes	Range of Outcomes
North Dakota	27, 529	88%	94%	90%	90.7%	94-88%
Montana	35, 876	95%	97%	96%	96%	97-95%
New Jersey	85, 610	70.9%	68.9%	81.8%	73.9%	81.8-68.9%
Puerto Rico	123, 565	95.6%	95%	98%	96.2%	98-95%
Maine	188, 266	87.8%	88%	94%	89.9%	94-87.8%
Mississippi	224, 419	92%	92%	89%	91%	92-89%
Ohio	409, 393	86.3%	91.9%	90.75%	89.6%	90.75-86.3%
New York	710, 562	75.2%	70%	83%	76.1%	83-70%
Texas	1, 157, 004	85%	87%	83.7%	85.2%	87-83.7%
California	1, 527, 403	82%	89%	92%	87.7%	92-82%

Table 24 shows family outcomes by the number of children birth-3 enrolled in ECI programs in 2011. There does not appear to be a relationship between outcome percentage results and the number of children birth-3 served. For instance, New York and California, which have the highest number of children with IFSPs have only a 3.9% difference from North Dakota, where only 922 children were served in ECI programs.

ECI enrollment numbers do not seem to predict family outcome results.

Table 24: Family Outcomes by Birth-3 served

State/Territory by Children Served in 2011	Children Served	Outcome D	Outcome E	Outcome F	Mean of Outcomes	Range of Outcomes
Montana	728	95%	97%	96%	96%	97-95%
North Dakota	922	88%	94%	90%	90.7%	94-88%
Maine	982	87.8%	88%	94%	89.9%	94-87.8%
Mississippi	2,122	92%	92%	89%	91%	92-89%
Puerto Rico	4,883	95.6%	95%	98%	96.2%	98-95%
New Jersey	10, 570	70.9%	68.9%	81.8%	73.9%	81.8-68.9%
Ohio	14, 103	86.3%	91.9%	90.75%	89.6%	90.75-86.3%
Texas	23, 613	85%	87%	83.7%	85.2%	87-85%
New York	28, 645	75.2%	70%	83%	76.1%	83-70%
California	32, 575	82%	89%	92%	87.7%	92-82%

Table 25 shows family outcomes by federal funding. Federal funding is determined by the number of children birth-3 in the general population. Interestingly, Montana, which received the lowest amount of money from federal grants had the second highest mean of family outcomes, and the highest percentage in outcome E (effectively communicate their child’s needs). Additionally, Texas and New York, which also receive relatively high federal grants have two of the lower means for outcome percentages. Though federal funding does not seem to directly impact family outcome percentages, it is interesting to note that some of the lower funded states had higher family outcome percentages.

Table 25: Family Outcomes by Federal Funding

State/Territory by Federal Funding Amount	Federal Funding Amount (Dollars)	Outcome D	Outcome E	Outcome F	Mean of Outcomes	Range of Outcomes
Montana	2,150,355	95%	97%	96%	96%	97-95%
Maine	2,151,692	87.8%	88%	94%	89.9%	94-88%
North Dakota	2,153,794	88%	94%	90%	90.7%	94-88%
Mississippi	4,372,987	92%	92%	89%	91%	92-89%
Puerto Rico	4,383,906	95.6%	95%	98%	96.2%	98-95%
New Jersey	10,720,012	70.9%	68.9%	81.8%	73.9%	81.8-68.9%
Ohio	14,296,808	86.3%	91.9%	90.75%	89.6%	91.9-86.3%
New York	23,867,174	75.2%	70%	83%	76.1%	83-70%
Texas	39,962,532	85%	87%	83.7%	85.2%	87-83.7%
California	53,574,884	82%	89%	92%	87.7%	92-82%

Table 26 shows family outcomes by state funding. The two states with the highest state ECI budgets received the two lowest means of family outcome percentages. In contrast, Montana, which is the third lowest funded state included had the highest overall mean of outcomes.

In states where funding information was available, there was not an obvious relationship between state funding and family outcome results.

Table 26: Family Outcomes by State Funding

State by State Funding Amounts	State Funding Amount (Dollars)	Outcome D	Outcome E	Outcome F	Mean of Outcomes	Range of Outcomes
North Dakota*	0	88%	94%	90%	90.7%	94-88%
Mississippi	221,945	92%	92%	89%	91%	92-89%
Montana	2,700,000	95%	97%	96%	96%	97-95%
Maine	27,900,000	87.8%	88%	94%	89.9%	94-87.8%
Texas	33,300,000	85%	87%	83.7%	85.2%	87-83.7%
Ohio	33,700,000	86.3%	91.9%	90.75%	89.6%	91.9-86.3%
California	72,800,000	82%	89%	92%	87.7%	92-82%
New Jersey	88,400,000	70.9%	68.9%	81.8%	73.9%	81.8-68.9%
New York	164,000,000	75.2%	70%	83%	76.1%	83-70%

*North Dakota receives only federal and private funding

*No information available for Puerto Rico

Table 27 shows the means and ranges for each of the family outcomes. The highest outcome mean was F, which is the percentage of families that believe ECI helped them help their child to grow and learn.

Table 27: Family Outcomes Mean and Range

	Outcome D	Outcome E	Outcome F
Mean of Outcomes	85.8%	87.3%	89.8%
Range of Outcomes	95-70.9%	97-68.9%	96-73.9%

Overall, there were no obvious trends related to outcome results. Both child and family outcomes appear to be independent despite variances in general population, federal funding, state funding, birth-3 general population, and enrollment numbers by state. However, this may be due to the wide differences in state data collection in terms of both how children are assessed and how states gather and report outcome results.

DISCUSSION

Data from eight U.S. states from 4 regions and 1 U.S. territory were examined for differences in how they implement ECI programs, how they report on outcome results, and how they compare in terms of outcome results. Outcome results were based on outcomes that are reported based on specific calculations suggested by the Early Childhood Outcomes Center, discussed in the *Methods* Section. By examining these outcome results and the variables that may influence them, professionals interested in working in ECI and policymakers who make decisions related to funding ECI will have a fuller picture of how policies concerning transparency in IDEA Part C relate to actual service results.

Previous research has determined that early intervention for children with disabilities is important and beneficial for both the child and family's development and saves money for taxpayers in the future (Stabile & Allen, 2012.) However, if government funding for IDEA Part C is contingent on specific measures of efficacy determined at a federal rather than a state level, examining the significant discrepancies between how states determine eligibility, evaluate children, and report outcome data is essential. When requirements exist at a federal level, state autonomy becomes a barrier to consistent data collection.

What began as a financial incentive program to provide services for children with disabilities and their families, has expanded into a 438.5 million dollar social welfare endeavor with programs in every state and a total of 342,821 children served in 2011

(ECTA Center, 2014). Each of the families that qualify for service are entitled to an Individualized Family Service Plan (IFSP), an inter-disciplinary service provision plan agreed upon by a team of professionals and the family. ECI programs are not only expected to provide quality service from a variety of professionals, they are also responsible for implanting community outreach efforts to find children who may be in need of services. ECI programs are also responsible for transitioning eligible children from IDEA Part C to IDEA Part B services, which are available for preschool and school-age children who qualify for services.

Outcome Development

In addition to providing these essential services, ECI programs at a state level are also required to track and report on a variety of child and family outcomes. These requirements stem from an effort to increase transparency for government programs funded with taxpayer money. Requiring states to report on child and family outcomes provides allows both the public and policymakers to look at how individual states are meeting their goals each fiscal year. In the future, outcome result data will be helpful in comparing a state's progress over time. However, in order to rely on outcome results as a means for measuring the success of ECI on a state and nation-wide level, there must be closer attention paid to how providers are assessing abilities, interviewing families, organizing outcome results, and reporting outcome results. Additionally, examining the child and family outcomes themselves, and whether they are appropriate for the diverse

populations that ECI serves is also important in deciding if the current data is a reliable way of determining program success.

The three family outcomes and three child outcomes examined in this report were developed by the Early Childhood Outcomes Center and funded by the Office of Special Education. The development of these outcomes began as an effort to report on how IDEA Part C was performing on a both a national and a state-by-state level. While developing standardized outcome goals is a good method to begin introducing some consistency into IDEA Part C practices across states, the goals ECO established are very broad and may not accurately reflect the needs or changes in ability for all of the children and families participating in ECI. For instance, the three child outcomes are A) children demonstrate positive social-emotional skills including social relationships, B) children acquire and use knowledge and skills including early communication, and C) children use appropriate behavior to meet their needs. In terms of speech and language treatment, these outcomes reflect what would be a positive increase in a child's ability in the communicative domain. However, ECI targets very diverse disordered populations. While infants and toddlers with speech and language difficulties make up a significant portion of the ECI caseload, children with physical disabilities that do not impact their speech and language may also be eligible for services. For a child with ambulatory problems but no speech or language related deficits, none of the outcomes truly target potential gains in terms of their specific deficits. Outcome C can be stretched to include a child with strictly ambulatory issues, however these considerations are not intuitive and while the three

child outcomes are appropriate for most infants and toddlers participating in ECI, not developing outcomes that truly reflect needs may mean a portion of potentially useful data is neglected. Developing outcomes for such a diverse population where children need very individualized and specific services is a difficult task (Hebbeler, 2008.) However, if policymakers use outcome data to make crucial decisions regarding funding IDEA Part C, developing accurate data is essential.

The family outcomes developed by the ECO are also very broad. However, outcomes for families participating in ECI services can be described more generally than outcomes for children. Additionally, the data taken on family outcomes primarily are a result of surveys or interviews, rather than from standardized assessment methods as is the case for child outcomes. The three family outcomes are described as the percent of families that report that ECI has helped them D) know their rights, E) effectively communicate their child's needs, and F) help their children develop and learn. For outcome E the goal is to help the families learn to help their child develop and learn. Family outcomes were developed to examine the potential for the family to change in regards to education about their rights through IDEA Part C, their ability to become advocates for their children, and their growth in terms of knowledge on how to appropriately guide their child's development. Unlike child outcomes, family outcomes can be considered appropriate for all children participating ECI, regardless of the nature of their disability (i.e. cognitive differences, speech and language differences, or physical differences). As Guralnick (2011) noted, families of children with disabilities are dealing

not only with the stressors related to the specific needs of their child, but also financial and environmental stressors. By becoming more knowledgeable about their rights, the needs of their child, and how to help their child develop, families can reduce not only specific child-related stressors, but some of the more general stressors as well.

Trends in FFY 2011 Outcome Data

Three child outcomes and three family outcomes were examined from each of the 8 U.S. states and 1 territory included in this report. Additionally, a number of factors were considered as potentially influential to outcome results. Outcome results were evaluated by general population size, birth-3 population size, and the number of infants and toddlers enrolled in ECI programs, as well as by federal and state funding levels. These population size and funding level factors were chosen to evaluate the assumption that funding may play a significant role in the quality of service provision. Population variables were considered because ECI funding at a federal level is determined by the overall birth-3 population in the state. Unfortunately, though all the outcome data was taken from FFY 2011, birth-3 population data was only available from the year 2012. Additionally, state funding data was collected via a report by the Easter Seals, an ECI contractor organization. The links they provided to show where they accessed state funding information were all inactive (Easter Seals, n.d.) While ECI may collect more complete data from states, the data publically available is consistently difficult to find via government websites.

In general, states varied in their mean outcome results. Puerto Rico and Maine had the lowest mean outcome result in both categories in child outcomes. Category 1 is made up of infants and toddlers who entered below age expectations in each outcome and substantially increased their rate of growth by the time they exited ECI. Category 2 is made up of infants and toddlers who exited the program at age level in the reported outcome. However, low results in category 1 did not always link with low results in category 2. For example, in category 2 New York had an outcome average of 44.3%, the third lowest mean in that category, though in category 1, New York's average was 69.6%, one of the higher mean outcome results in the category. It is important to note that category 1 and category 2 are measuring different groups of children. Two of the consistently higher performing states in both child outcome categories were Mississippi and New Jersey. Interestingly, Mississippi and New Jersey have relatively little in common when it comes to variables such as funding, population, or enrollment numbers.

Family outcomes include: E) families know their rights F) families are able to effectively communicate their child's needs and G) families help their children develop and learn. In terms of family outcomes, Puerto Rico, which consistently had some of the lowest outcome results had the highest family outcome results in A and C, and the highest mean of family outcome results. So, while Puerto Rico sees some of the lowest assessed improvement in child outcomes on standardized instruments, families are very pleased with services. Indeed, Puerto Rico reports that 98% of families believe that the ECI program has helped them to help their child develop and learn. New Jersey, which

consistently had some of the higher child outcome results in both categories, had the lowest mean of family outcome results. Only 68.9% of families reported that their ECI program has helped the family to communicate their child's needs. This disparity indicates that it is possible some programs are finding success in treating the child, but are not as successful in educating and counseling the family. According to Guralnick's (2011) model, both child goals and family goals are essential in early childhood intervention. Although all family outcomes are reported were relatively high, examining discrepancies between child outcome results and family outcome results allows a broader understanding of where states are showing strengths and weaknesses.

No variable examined in this report directly related to higher outcome results. This was the case for child outcomes in both category 1 and category 2, and for family outcomes. This lack of relationship between variables and outcome results is surprising. As previously mentioned, one of the hypothesis considered in this report was that better funding may result in higher outcome results. However, no trends were found relating federal or state funding to higher outcome results. Additionally, large ECI programs, meaning states where more children are enrolled did not have significantly higher or lower outcome results than states with fewer children enrolled.

Federal grants are per state are determined by the birth-3 general population. However, birth-3 population is not always proportional to ECI enrollment numbers. For instance, Puerto Rico has a relatively low birth-3 population, but has over 4,000 children enrolled in ECI. While, Maine has a much higher birth-3 population but only 938

children enrolled in ECI. This discrepancy is potentially troubling, because it can be assumed that due to a state or territory's low birth-3 population rate, states may not be getting all the necessary grant money needed for higher enrollment numbers. However, according to the lack of trends in the FFY 2011 data, neither funding nor population results in changes in outcomes. This does not necessarily indicate that funding and population are completely unrelated to the success of an ECI program. Rather, the lack of trends across issues evaluated in outcomes is likely more indicative of inconsistent methods of collecting and reporting data across states. The autonomy allowed for states to be flexible in terms of how they report and collect data and in the way they manage their ECI programs, but it results in largely inconsistent data. When considering how IDEA Part C is functioning as a whole, looking to outcome results as a measure of success may not be appropriate, given this diversity.

Strengths and Challenges of IDEA Part C Outcome Data

In order to determine if ECI programs are beneficial to children, there must be long-term outcome data. The Office of Special Education's initiation of an accountability program for ECI is an important part of not only making sure tax dollars are being spent well, but that children and families in need of services are getting good care. By collecting outcome result data on an annual basis, policymakers and researchers can look at improvements in ECI programs and potentially determine necessary changes to improve over time. Additionally, collecting data on factors such as funding, population, enrollment numbers, and ethnicity over time can provide longitudinal data on what is

happening within ECI programs. The ECO's attempts to streamline what outcomes are being reported can potentially help researchers and policymakers look at IDEA Part C as a national program. In addition, the inclusion of both child outcomes and family outcomes provides information on how treatment is impacting children and how education and counseling is impacting families. Both of these factors are essential when considering the whole family as the unit of treatment.

While the requirement for states to report on the same outcomes is a good step in the direction of gathering and evaluating consistent data for IDEA Part C on a national level, the manner in which states and territories collect data varies so greatly at present that outcome results cannot not be easily compared. Additionally, while the family outcomes developed by the ECO accurately reflect the needs practically any family participating in ECI, the child outcomes are mostly applicable to children with communication and cognitive deficits, and do not necessarily allow for good data on gains made by children with strictly physical disabilities not related to communication or cognitive abilities.

Even with outcomes not necessarily applicable to every child, the manner in which states assess outcomes could be significantly impacting results. For instance, if Texas is only using the BDI-2 as a means of assessment, and Puerto Rico is relying on another standardized test or mostly clinical opinion, it is difficult to compare their results. In addition, although IDEA Part C is in the early stages of implementing outcome reporting requirements, the inconsistency in which data is presented makes it difficult for

researchers to compile and interpret what is occurring in ECI on a state-by-state or a national level. For some states, information on demographics such as what languages are commonly used, the SES status of participants, and what assessments are frequently utilized is readily available. But for most, that information is difficult to find and even more difficult to interpret. While the ECO provides multiple documents meant to guide providers in terms of data reporting, therefore streamlining the process, these documents are not organized and are challenging to navigate.

Overall, IDEA Part C policy evaluators would benefit from deciding whether or not state autonomy in program outcome reporting and provision implementation is more important than consistent and reliable data across states and regions. As it stands there are too many differences in outcome result data to compare states or assess the success of IDEA Part C as a result of the outcomes developed by the ECO. Currently, examining the number of families and children served, the number of children identified through services like Child Find, and the number of successful transitions from ECI programs to school placements are more consistent measures of success. If states continue to use various assessments and methods of reporting data, it may be more appropriate for the state agency in charge of implementing ECI to develop and collect outcome data individually. Since the majority of ECI funding per state comes from state budgets or private funds, individual outcome reporting systems may provide more cohesive descriptions on how states are performing.

CONCLUSION

IDEA Part C is a unique social welfare program. Not only does it provide multi-disciplinary treatment for vulnerable children, it also provides equally important counseling to parents of children with disabilities. Many of these parents have not had experience with children with disabilities, therefore the counseling and support provided by ECI programs across the nation gives parents a chance to learn how to advocate for their children, how to assist in their development, and what rights they have as parents.

However, ECI programs are funded partially through taxpayer money. As in any program with federal funding, seeing positive outcomes is essential in order to advocate for continued or additional funding, and for the program itself to continue. Additionally, if service providers are spending time and resources to go to the homes or community centers of children enrolled in ECI without seeing improvement for either the children or their families, then it is owed to both the taxpayers and the clients to re-evaluate how the program is functioning. For these reasons, accountability requirements such as reporting on outcome results are an important aspect of IDEA Part C. The problem lies in the fact that ECI programs across the United States (U.S.) are very diverse. Additionally, there are large differences in cultural, linguistic, and disorder types among children and their families. Creating outcomes that cover the variety of disorders, developmental levels, severity levels, languages, and social-economic-statuses within ECI programs is a very difficult task.

Future efforts in developing appropriate accountability systems should consider a variety of assessment methods and accommodate methods to the large diversity of disorders within the eligibility requirements for ECI. Some suggested changes include considering appropriate assessments for bilingual children, developing goals based on

children with physical disabilities that do not impact speech and language, and creating state-based or local accountability standards. The majority of outcome results are above 50%, but the differences in reporting makes the data inconsistent. However, inconsistent national data does not necessarily reflect the quality of efficacy of services provided on a local level. ECI programs have and will benefit many children and families. Therefore, developing appropriate methods for describing what is happening in this important program is necessary to its continuation as an aspect of public policy in the U.S.

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