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Early Intervention:

An Exceptional Approach for Exceptional Learners

The birth of an infant: in all the world, where could there be a more beautiful, innocent, perfect occurrence? The baby's sweet smile brings joy to others' hearts as he develops into a toddler and then a school-age child. Enrollment in school—a stage in a child's life that presents parents with many decisions to be made and questions to be answered, has also developed into a time for some parents to be faced with the challenge of a child's learning difficulties, delays, and/or disabilities. In the past quarter of a century, the incidence and identification of these exceptionalities in children have increased; causing parents, educators, legislators, and other concerned professionals to inquire about better alternatives to aid these exceptional children. One such alternative is a concept that, through twenty to thirty years of research and study, has gained professional acceptance as a highly effective approach: early intervention. Despite the positive response to early intervention, it is still a fairly new approach that has progressed from what Smith (1988) termed a nonexistent state to a state involving public awareness, federal commitment, and legal mandates. This paper will explore the many facets leading up to and surrounding early intervention. The changing view of childhood since the 1790's will be discussed followed by a history of regular, special, and early childhood special education. An overview of the early intervention law (PL 99-457) will be presented including a look at services to both the birth through two and three through five age groups. The paper will then discuss both how to achieve successful implementation of the law through careful attention to five steps, and current early intervention efforts and services in the United States. The cost and efficacy of such a program and a personal, reflective look at early intervention will conclude the paper.

Views of Childhood since the 1790's

Society's view of childhood has changed drastically since children first became members of family households. Limiting the look at this history to a span of 200 years gives the reader a sense of the dramatic changes that have occurred over such a short period of time. Approximately 200 years ago, in the late 1700's, children were viewed as pieces of family property. Adults, seeing
children as "mini adults", waited for them to be what they considered old enough to work in the town factory or mine. However, Ramey (1982) reminds the reader that in 1850 child labor laws helped to prevent youngsters from exploitation in harsh and unsuitable work environments. Harsh, abusive treatment in the home was also addressed as legislation was passed to protect children from parental physical abuse in 1900. Progress and change had slowly begun.

As a new century began so did the study of child development and, soon after, a growing acceptance of proper care for the medical, psychological, and behavioral characteristics of a child. Ramey (1982) goes on to note the establishment of pediatrics—a health care speciality that has come to address the development and care of children through prevention. While children without disabilities were being given the right to a free, public education during the early to middle 1900's, a focus on the prenatal developmental period emerged partially due to a 1959 report on the association of a chromosomal abnormality with a clinical syndrome, Mongolism (Ramey, 1982). Genetics became linked with children and possible disabilities. In 1960, the recognition of neonatology as a subspeciality of pediatrics brought with it an intensification of newborn care resulting in an increased survival rate of infants with disabilities. Those children, who once failed to survive both the trauma of birth and the poor care conditions thereafter, began to survive with improved hospitalization and treatment (Ramey, 1982). Thus, a new challenge was born: the care of infants and children with disabilities.

Research led professionals to a deeper understanding of the social, emotional, and behavioral components of health care. No longer was infant care purely physically based. The emotional needs of an infant to interact with and be held by his parents became one of many concerns of both professionals and society. Still today, according to Ramey (1982), "Primary care physicians report that 17% of their practice is related to the behavioral and developmental aspects of pediatrics" (p. 8). The developmental patterns of an infant, before birth and during the first few months of life, are a concern. Everyday, researchers learn more about the capabilities of infants in their earliest months and stages of development. According to a 1986 House Report (99-860) that accompanied PL 99-457, scientists have come to view young infants as capable of participating in
complex interactions with the world. Although once seen as helpless creatures of their environment, they are now seen as active in organizing their experiences through multiple categorization and recognition memory, only to mention two of many capabilities (Smith, 1988). Although the country once had little understanding of the development of childhood, it is now concerned about the development, rights, and needs of infants and children with and without disabilities.

It is now evident how, over a number of years, the changing view of childhood has played an active part in the transformation of infancy as a period of passive helplessness to a period of active development, requiring nurturing; proper biological, emotional, and social care; and continuing study. The changes in this field closely relate to the changes that have and are occurring in the history of regular, special, and early childhood special education. To separate these histories would be inefficient, as every change affects all parts of the educational system. Thus, a combined, partial history of the three areas is best suited for this paper's purposes.

**History of Regular, Special, and Early Childhood Special Education**

Education for children has developed from an unstructured, family responsibility to a structured, federal and state responsibility. How to serve children with disabilities during the 1800's was a question that brought solutions ranging from neglect (the norm) to a few attempts at care and treatment (the exception). Those exceptions, though, were vital in standing as models for future services: Howe's school for the blind and deaf; Itard's efforts to raise Victor, a wild boy; and Seguin's school in Paris for mentally retarded children, to name a few (Filler, 1983). These efforts from the 1800's were followed, in the next century, by the eugenics movement: a movement of institutions and residential facilities. This was due in part to views of intelligence as primarily a hereditary characteristic. If intelligence was purely predetermined by the family, education for the mentally handicapped seemed hopeless. Institutions became widespread and accepted.

Despite this despondent state for individuals with disabilities, a right to a free public education for ethnic minority groups was established in 1954. During this year, according to
Ramey (1982), children of ethnic minority groups received their rights to integrated rather than segregated school experiences. The federal commitment to providing a good education for children without disabilities grew. As that occurred, interest in improved care for children with disabilities also grew. According to Smith (1988), in 1960, PL 88-156 expanded prenatal services to expectant mothers from low-income homes. This was a beginning look into prevention of mental retardation. Also in 1960, federal education monies were given to schools/institutions for children with disabilities through PL 89-313. This sixties period, a time of increased poverty, saw the launch of a "War on Poverty" (Smith, 1988). Part of this launch was the 1965 Economic Opportunity Act that provided "comprehensive developmental services for preschool children from low-income families": Head Start (Davis & Warren, 1987, p. 765). Davis and Warren describe these services as focusing on the child's overall growth including identification and treatment of medical problems, nutrition deficits, and socialization delays; opportunities for parental involvement, and individualized educational intervention. This program not only continues to operate but, as of 1972, includes children with disabilities as 10 percent of its enrollment. Smith states that Head Start is the largest provider of mainstreamed services for preschool aged children, with 60,000 children with disabilities enrolled in 1986. This program, combining preventative intervention with remedial intervention, is representative of the important role of experience and environment on a child's development and achievement, rather than the eugenics movement's emphasis on intelligence/achievement as purely a hereditary characteristic.

The sixties continued successfully with the 1967 establishment of the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) component of Medicaid (PL 90-248), which focuses on early identification and treatment to prevent developmental problems (Smith, 1988). Within a year, hundreds of projects were being conducted and funded by an act designed to build upon the current knowledge of the potential impact of early intervention. This act, PL 90-538, was named the Handicapped Children's Early Education Assistance Act and set up the Handicapped Children's Early Education Program (HCEEP) to build upon 20 years of federal support to develop model programs and methods for effective preschool services for exceptional children.
Smith, a member of the national executive board of the Council for Exceptional Children's Division for Early Childhood, notes that as of 1988 the HCEEP had not only conducted and funded at least 500 projects but was a motivating force in the emergence of state planning in this field.

As the sixties came to a close, another exciting decade in education began. In 1975, PL 94-142, the Education for All Handicapped Children Act (Part B of the EHA), was approved to provide a free, appropriate public school education to all handicapped children ages 6-18 within the least restrictive environment. Students with disabilities aged eighteen through twenty-one may be eligible for services depending on each state's decision. This legislation also included a Preschool Incentive Grant to encourage, but not require, states to serve children with disabilities aged three through five. An earlier form of the bill included a requirement to begin serving children at age three. In the final law, according to Weiner and Koppelman (1987), however, a compromise was worked out to give discretion to the states over serving preschoolers. E.W. Martin, former director of the Bureau for the Education of the Handicapped in the U.S. Department of Education, was given main responsibility for implementing this law. He notes that it took four years for Congress to study and deliberate Senate and House bills before approving the 94-142 bill (1989). More than the usual amount of planning, revising, and compromising was required for this bill, a bill that was and is such a vital part of the special services provided today.

This rapid progress continued as educators and parents saw a move toward services for the children with disabilities in the birth through five age group in 1984. PL 98-199 set up a new planning component within HCEEP to provide federal funds for states to plan, develop, and implement state-wide comprehensive services for the birth through five range who have disabilities or are at-risk (Smith, 1988). Despite the progress made for children with disabilities in the birth through age five population in the past decade, the number of years it has taken this social issue to weave its way through the red tape and full schedules of society and government is great when one considers the small number of school age years a child is eligible for services. Providing education for children in regular, special, and early childhood special programs requires interdisciplinary
effort, with individuals from various professions passing and implementing the laws effectively. This interdisciplinary effort is a key part of Public Law 99-457, the Education of the Handicapped Act, Amendments of 1986. An overview of this law will follow shortly.

The most recent development, Public Law 101-476, was signed into law on October 30, 1990 as the Education of the Handicapped Act Amendments of 1990. These amendments brought about the following changes: renaming of the EHA to "Individuals with Disabilities Education Act" (IDEA); replacement of the term "handicapped" with the term "disabilities" throughout the law; and inclusion of children with autism and traumatic brain injury as separate categories in the definition of children with disabilities. Due to this recent development, the term "disabilities" will be used throughout this paper to parallel the current legislation.

**Public Law 99-457, the Early Intervention Law**

For the past 20-30 years, scientists and concerned professionals have been attempting to demonstrate early intervention's effectiveness in the remediation and/or prevention of disabilities and their effects. According to Johnson-Martin, Attermeier, and Hacker (1990), during the beginning of those years, emphasis was placed on three through five year old, poverty-stricken children at risk for school failure. During the end of those years, emphasis was placed on research and services for infants who have disabilities and/or are at high risk for delays and disabilities. Those efforts are now being seen, read about, and talked about in all areas of the United States due to passage of PL 99-457, which is making the term "early intervention" a household word.

This law addresses two populations of children and their families: birth through two age range and three through five age range. PL 99-457 amends section 619 of Part B of the Education for Handicapped Act (PL 94-142) from "Incentive Grants Program" to "Preschool Grants for Handicapped Children Program" to increase financial assistance to states for their preschool programs for children with disabilities. This information, taken from page 1642 of the Department of Education's January 13, 1989 issue of the Federal Register concerning Preschool Grants, is followed by restrictions that the states must make free, appropriate public education available to all children with disabilities aged three through five by fiscal year 1991 in order to continue eligibility.
for funding under the Preschool Grants Program. Basically, it extends PL 94-142 to children with disabilities aged three through five. PL 99-457 also adds Part H to the EHA, a program of financial assistance to help states plan, develop, and implement a comprehensive system of early intervention services for infants and toddlers with disabilities and their families. Currently, the concern over the efficacy and cost-effectiveness of this law is high. A new law, similar to PL 94-142 which involves such a large number of people, requires acceptance and time. It is a law needed by this country, one that many authors have termed "long overdue." However, F. Weintraub, assistant executive director of the Council for Exceptional Children, reminds the reader that things happen partially due to time and circumstances. "The political leadership was right and the constituency communities that fought so long and hard on the early childhood issue were willing to accept something that wasn't all of what they wanted, but was good" (Weiner & Koppelman, 1987, p. 12). A more thorough discussion of this law's components will appear later in this paper.

Since the day the United States was founded, American citizens have been standing up, raising their voices, and fighting for causes. Everyone has a cause in which they believe and reasons for those beliefs. Early intervention, too, is a cause of many individuals. Why early intervention? There are two types of reasons worthy of explanation: logical and ethical reasons. The logical reasons are based on why it is logical to mandate a law that will make services to young children with disabilities more uniform nationwide. In 1986, Dunst, Snyder, and Mankinen presented a list of five causes for the current lack of well-planned and implemented services for infants and preschoolers with disabilities. First, at time of publishing of this Dunst et al. 1986 article, there was no mandate for individual school districts to apply state education funds to education for infants with disabilities. Second, this situation caused nonprofit organizations and groups such as the Association for Retarded Citizens to work toward better solutions. Third, there was a lack of leadership in the planning and administration of services. Interested parties are needed in early intervention, but so are parties with the power and funds to provide extensive services. Fourth, there were insufficient funds for proper screening and follow-up programs that
require sophisticated equipment and staff. Last, there was a lack of research to interest and convince others of the potential effect of such services. Already, in the beginning stages of PL 99-457, one can see the potential for improvement in these areas but still understand the need for proper implementation of this comprehensive program.

Ethically, the reasons for early intervention are simple. The infant and preschool years are critical periods for learning various specific skills. Hayden (1979) stressed that once those periods are over, learning progressively becomes more difficult, especially concerning communication skills. If a problem or delay occurs, however, it may not be visible until the child is school-age and three to four years behind in an academic area, like reading. Those years of rapid development, termed by Smith and Strain (1984) and others as teachable moments and readiness stages, must not be denied importance. Once a child gets "behind," a game of catch-up must begin and may never end. Through early intervention, some of these conditions and delays may be corrected or prevented. This simple reason seems valuable enough even as it stands alone. Hayden (1979) answers the "Why?" question accurately in the following: "To deny them the attention that might increase their chances for improved functioning is not only wasteful, it is ethically indefensible" (p. 510).

Upon close examination of PL 99-457, one finds a myriad of dimensions to consider, steps to take, and duties for which to be responsible. It is similar to the building of a house which requires people of various abilities and powers to perform many duties in order to get the job done. Without proper planning and performance by one person, no one can do his/her job efficiently. It is a team effort that requires time and coordination of services. A simple task, PL 99-457 is not. Its complex nature is only simplified when one looks at the basic component of the law: early intervention. Straightforward, early intervention is defined:

Discovering that a child between birth and school age has or is at risk of having a handicapping condition or other special need that may affect his/her development and then providing services to lessen the effects of the condition (Smith & Strain, 1984, p. 2)
The complexities surface as the country attempts to apply that definition without allowing obstacles such as duplicated services, overlapping mandates, inconsistent regulations, and inconsistent eligibility criteria block the path (Meisels, Harbin, Modigliani, & Olson, 1988). According to Pascal Trohanis (1988), director of START (State Technical Assistance Resource Team), an organization that helps states implement programs for young children with disabilities, one step to working around these obstacles is looking at the basic beliefs and duties of Congress, the federal government, and the state. He states them as follows. The Congressional dimension includes encouraging optimal child and family development; minimizing possible institutionalization; reducing the need for expensive placement; reaffirming individuals' self-esteem; and promoting cooperation on all levels. The federal government's dimension includes designating an administrative agency of the U.S. Department of Education for daily management of the law; composing regulations based on PL 99-457 and making them available to states; implementing the levels of funds available to states; and sponsoring assistance projects to support states' efforts. On the state level, duties include interpreting PL 99-457; making known that state's current status and support for improvement regarding early intervention; providing leadership in progress measures; and making available that state's needs for personnel and resources. Another portion of state service implementation is assuring that the 14 components of effective early intervention for infants and toddlers, as passed by Congress, are in place. These components are a section of Part H which addresses infants and toddlers from birth through age two. Each component will be addressed individually.

**Public Law 99-457's Fourteen Components**

The first is a definition of the term "developmentally delayed." Each state forms its own definition, resulting in nationwide variance. Early intervention services are designed to meet the needs of three groups of infants and toddlers. The first, as presented by Garwood and Sheehan (1989), are those children who have a diagnosed mental/physical condition with a high probability of developmental delay. Many of these infants will be diagnosed at birth, especially those with physical conditions. The second group are those infants experiencing developmental delays as
documented by chosen assessment tools. The states choose both the tools and the degree of delay required for consideration as a developmental delay under PL 99-457. Sheehan and Sites (1988) note that most states set a "cutoff point in percentage deviation of chronological age from developmental age and/or in standard deviation units on standardized measures" (p. 107). In Indiana, according to Sheehan and Sites (1988) a developmental delay is one which is

"20% below the chronological age in at least one area of development on an assessment instrument that yields scores in months; 1.5 standard deviations below the mean on a standardized test in at least one area of development; [or] 15% below the chronological age in two or more areas of development" (p. 107)

The problems of effective assessment with infants and toddlers will receive more thorough discussion later. The third group are those infants who are at high risk for substantial developmental delays if early intervention is not provided. A definition for "at risk" must also be determined by the state if it chooses to serve at risk infants (state option). These three distinct groups of infants are powerfully affected by a state's definition of developmental delay. Formulation of this definition should be preceded by adequate study.

The second component is the implementation of a timeline for service delivery. Every project, no matter the size, must have a timeline to ensure timely completion. The timeline for this particular law encompasses five years. According to Smith (1988), during the first two years, an interagency coordinating council (ICC) must be established by the governor; a lead agency (can be same as ICC) must be established; and the state must ensure that funds are being used properly. The ICC must consist of at least 15 voting members from various professions: parents, medical doctors, special and/or regular educators; social service providers, Head Start representatives, to name a few possibilities. Walsh, Campbell, and McKenna (1988), who provided these membership types, also stated that an ICC meets four or more times per year to ensure minimal levels of interagency involvement in early intervention planning. The ICC also decides whether or not their state will serve at risk infants. The lead agency, also established during the first two years, will be addressed as the ninth component. During the third and fourth years, the state must
have adopted a policy containing the 14 components. The fifth year, states must ensure the comprehensive system is in effect with full services to all eligible children. States may receive a year long extension for full implementation of services.

The third component is the comprehensive, multidisciplinary evaluation of infant, toddler, and family needs. Evaluation brings to mind various assessment instruments designed to test children of all ages. Common sense reminds us that no one instrument should be used to properly evaluate the needs and abilities of a child and his/her family. A combination of checklists and samplings will prove to be more efficient in evaluating all seven areas of an infant's development as noted by Mapes, Mapes, and Lian (1988): perceptual, conceptual, gross motor, fine motor, prelanguage and communication, social-emotional, and self help skills. Through proper evaluation, service providers determine family needs and thus applicable services. To effectively provide services to many different children and their families, Smith and Strain (1988) recommend the use of a continuum of services to allow the parents and evaluators to choose the type of services most appropriate for the child's needs. Such a continuum might range from prevention services to a center-based program to a residential program. "In early intervention one size does not fit all" (Smith & Strain, 1988, p. 40). That truth makes both careful evaluation and service provision musts.

The fourth component is the Individual Family Service Plan (IFSP). This plan, a vital part of early intervention, emphasizes the importance of the inclusion of the family in services to the child. Based on the evaluation of the child's and family's needs, the IFSP must contain the following: child's present developmental levels; family's strengths and needs relating to the child; main outcomes hoped to be achieved by the family; procedures and timelines for future progress; specific early intervention programs needed to meet the child's and family's needs and statement of how those programs will be used; dates of service beginnings and endings; case manager's name; and procedures for transition from infant-toddler programs to preschool programs (Smith, 1988). The importance of the IFSP is not without questions, however, as Trohanis (1988) mentions the 1988 unresolved issue of what constitutes family in today's changing world of family structure.
Questions like this one add extra challenge to this family component and will receive added discussion at a later time.

The fifth component is the establishment of a child find system. Most states currently have some type of aggressive, search and find program for the location of school-age children with disabilities. Those programs now need to be expanded and, in some cases, improved to locate eligible infants and toddlers. Questions concerning the degree of child find needed and the retention of confidentiality make this component, too, a challenge (Trohanis, 1988).

The sixth component is public awareness. Society, as a whole, needs to be made aware of both the incidence of disabilities and developmental delays in children and the laws and programs designed to serve and aid those children and their families. More specifically, it is vital that any person who deals with infants or toddlers is made generally aware of the existing early intervention system to enable him/her to refer that child or contact someone for more information. These public awareness materials may come in the forms of radio/television spots, posters or calendars noting the expected development of an infant, or publicized toll-free phone numbers for questions and concerns (Garwood & Sheehan, 1989). Michigan has produced an attractive, easy-to-read folder setting forth the beliefs, services, and laws of that state's early intervention system (Michigan State Board of Education, 1989).

The seventh component is the central directory. Containing a list of available services, resources, and experts in the state; this directory will be an asset to parents, case managers, schools, and hospitals. Authors Garwood and Sheehan (1989) note four important considerations in the formation of such a document. First, those using the directory, the target audience, must be addressed properly. The vocabulary needs to fit the reader. Second, the directory should be easy to use. Also, due to changing laws and services, frequent revision of the directory is necessary to provide accurate information about available resources. Fourth, the directory needs to be widely distributed to potential users. Only through following steps such as these, will the use of the central directory equal its intent.

The eighth component is personnel development training. Congress has instructed the
Office of Special Education Programs to make this component an upmost priority (Smith, 1988). The training includes both preservice for those entering the fields associated with early intervention and inservice training for current service providers and referral sources. This training is not to be an isolated occurrence but a recurring one because of frequently changing research findings. The fact that early intervention involves professionals from such a wide array of disciplines creates problems for training institutions, hospitals, clinics, and schools. A more complete look into this component, including concern over the current shortage of professionals in these service areas, will follow.

The ninth component is the authority of the lead agency. The law's intent within this agency is the formation of a "single line of authority from the federal government to the state and downward to local early intervention agencies" (Garwood & Sheehan, 1989, p. 133). Judging by the previous organization of some states, consisting of a loosely defined group of seven or more different types of agencies that attempted to perform administrative functions, as noted by Meisels et al. (1989), a reorganization of responsibility is needed. The lead agency, responsible for compliance of state programs with federal laws and regulations, carefully monitors early intervention activities and programs. In a 1987 survey, Graham and Scott found that each of the forty states had chosen either the Department of Education (24 states) or the Department of Health (16 states) as its lead agency.

The tenth component involves the local service provider contracts. Although PL 99-457 includes planning of new services, it more strongly focuses on the proper use of existing services through improved interagency cooperation. This interagency emphasis requires, according to Garwood and Sheehan (1989), monitoring of the contracts between early childhood service agencies, clinics, and schools. These existing services may require modification and personnel training to meet federal regulations.

The eleventh component is timely reimbursement of funds from the state to local service providers. In order to activate early intervention services rapidly, funding delays or cuts cannot be tolerated. Large service institutions may be able to wait for funding problems to pass; small
agencies may not (Garwood & Sheehan, 1989).

The twelfth component is procedural safeguards. In such a comprehensive provision of services to families, disputes and/or legal actions are a realistic expectation. Agencies have several responsibilities, as outlined by Garwood and Sheehan (1989), such as assuring the parents' understanding of the safeguards to which they are entitled; maintaining confidential and detailed records; notifying the parents of changes in the child's program; and preventing the child from becoming a "victim" by continuing early intervention services during complaints or disputes. These responsibilities are vital in protecting both the family and the agency.

The thirteenth component involves personnel standards. Related to the previous training component (#8), this component specifically deals with the adoption of a set of standards to ensure a staff of adequately trained individuals. In 1988, 25 percent of the states did not require a specific certification to teach early childhood special education. Furthermore, 69 percent of the states lacked sufficient programs to train needed professionals (Meisels et al., 1988). PL 99-457 will force colleges and universities to update their programs to meet the nation's changing needs.

The fourteenth and final component is a data collection and reporting system. To compile data on the numbers of infants and toddlers eligible for special services and their families has been and must continue to be an important duty. No matter how important gathering this data is, however, its value vanishes without rapid and widespread reporting of it. As B.F. Skinner stated in 1956, "We are more concerned with the discovery of knowledge than with its dissemination" (p. 221). Through experience, researchers and service providers must learn to use new knowledge to develop and improve programs. The impact of early intervention depends on it. With these fourteen components in place, a state is ready to provide services to infants and toddlers with disabilities. A breakdown of that section of PL 99-457 immediately follows.

Services for Children with Disabilities in the Birth through Age Two Population

"The earlier that these children are identified and education begun, the greater the chances of lessening the impact of the handicapping condition on the child and society" (May, 1987, p. 1241). This statement is what guided lawmakers to address the needs of infants and toddlers (ages
birth through two) in PL 99-457. A child exhibiting expected developmental patterns will experience the highest amounts of growth during the first three years of life. If society truly wants intervention for children with special needs to be successful, the "early years" is the time to do it. In 1988, Smith found that fewer than two of every five states mandated services for this age population. The three types of infants eligible for early intervention services, as mentioned previously, are those with a diagnosed mental and/or physical condition with a high probability of developmental delays; those experiencing significant developmental delays; and those who are at high risk for substantial developmental delays if early intervention is not provided. Each group is served through a different type of prevention as termed by Graham and Scott in 1988. The first population is served through tertiary prevention where intervention is aimed at making the disability functional in the least restrictive environment. The second population is served through secondary prevention where intervention is aimed at detecting delays early in order to help the child move into the expected developmental range. The third population is served through primary prevention where intervention is aimed at removing or minimizing the risk(s) before any symptoms surface.

Service to children with disabilities from birth through age two is optional for states, which is a large concern for many individuals. The state of being at risk is due to several different types of risk factors. Two of those types are risk factors affecting the mother and/or father during prenatal or perinatal states which may eventually affect the infant. Ramey, Trohanis, and Hostler (1982) list the following indicators of risk during the prenatal stage: mutant genes; metabolic disorders; nutrition deprivation; maternal infection; or exposure to radiation, toxic chemicals, or harmful drugs. The number of pregnant women who receive little or no prenatal care are those about whom professionals are most concerned. Also listed by Ramey et al. (1982) are indicators of risk during the perinatal stage: labor or delivery disorders, misuse of neonatal medications, cardiopulmonary problems, or infections.

Once the infant is born, he enters a field of four other types of risk factors: environmental, biological, medically-related, and family or systematic factors (Dunst, Snyder, & Mankinen,
Environmental factors, including such things as low socioeconomic status or less than optimal raising of the child, require intervention focus, according to Dunst et al. (1986), on enriching the child to affect changes in his intellectual functioning and thus performance. Biological factors are the most heterogeneous, ranging from sensory disorders such as blindness and deafness, to genetic disorders like Down's Syndrome, to mental retardation. Dunst et al. (1986) mention enhancement of behavioral and developmental components in all seven areas of development to reduce the impairment's negative effects as the intervention focus. Medically-related factors include low birth weight, prematurity, or five or more days in a neonatal intensive care unit. According to Infants Can't Wait: the Numbers, a 1986 publication of the National Center for Clinical Infant Programs, 250,000 babies are born annually weighing less than 2,500 grams; of these more than 43,000 weigh less than 1,500 grams (Garwood & Sheehan, 1989). Intervention focuses on "supplementing sensory stimulation to facilitate responsiveness to the animate/inanimate environment" (Dunst et al., p. 260). Despite the inclusion of five or more days spent in a neonatal intensive care unit with medically-related risk factors, changes are currently being made in these units to possibly reduce postnatal factors resulting in disabilities (Morrow & Morrow, 1987). More attention is being given, according to Ensher (1989), to tactile, auditory, and visual communication with the infant. Improvement of the incubators is also occurring through more attractive and comfortable incubators to lessen the emotional stress on the newly born infant (Morrow & Morrow, 1987).

Family or systematic factors include such things as being at risk for physical, sexual, or mental abuse; a drug dependent parent; a teenage mother; or a parent with disabilities. Treating these factors, according to Dunst et al. (1986), requires attempts at changing family functioning to thus influence the child's functioning. Related to all six types of factors, the most vulnerable child is one who is affected by a cluster of factors. One factor may not manifest itself into a delay. Multiple factors may. The long lists of risk factors help the reader realize the assortment of child find and identification programs crucially needed to reach such a large population of individuals. Public awareness programs will aid in identification. Hospital procedures such as newborn
screening for brain dysfunction and the administration of Apgar scores at one and five minutes of the baby's life are also recommended by Barnes and Barnes (1989).

Once an infant is identified, the next step, referral to an appropriate service agency, can be confusing and time-consuming. A central referral system, recommended by many, including Lynch, Mercury, DiCola, and Widley (1988), makes it possible for the parent or person who identified the child's special needs to contact any agency who will then contact the local referral coordinator who begins assessment. Once the assessment is complete, the coordinator refers the family to an appropriate agency. Clay County, Minnesota is proud of such a program that prevents parents from contacting an agency without the expertise or resources they need and thus becoming frustrated. A central referral system is representative of PL 99-457's focus on organization of services and cooperation between service providers. No matter what age a child is when assessed, that assessment should be thorough and ongoing. For an infant, however, choosing developmentally appropriate assessment tools is difficult due to the limitations of many available tools. Sheehan and Sites (1988) recommend that infant assessment not only cover health and environmental risk factors and family strengths and needs, but be free of cultural stereotypes and reliable and valid enough for possible court proceedings. As mentioned previously, assessment should be done in more than one form. A combination of a relaxed family interview, direct observation, and a checklist of developmental skills will provide a better assessment than would a single norm or criterion referenced test. Once the initial assessment is completed, the infant should be assessed regularly to keep up with the infant's dramatic development.

The importance of careful assessment is most evident when the agency defines the type(s) of services needed by the infant and family. This step plants fear in the minds of some as they consider the effects of labeling at such a young age. Judy Lambert, director at Hillcroft Center, Muncie, Indiana, an agency for infants-adults with disabilities, recognizes this concern and points out that writers of PL 99-457 were careful to stay away from the labeling of infants. Instead, the term "developmentally delayed" is consistently used with this young age group (Lambert,1990). For parents, knowledge of a label is often a relief as it allows them to plan for that child's needs
and abilities. Lambert uses the following useful example to explain her position. A house for sale has a basement with weak, old timbers. When a new family, without knowledge of this problem, moves in, they place a heavy piano in a room above that basement. The expected occurs, and then the family learns of the problem. If they had knowledge of the problem previously, they might have chosen a lighter instrument to enjoy. If we do not define a child’s problem(s) to his/her parents, there is a large chance that too many expectations and too much pressure may be placed on him/her. The parents need to know the child’s strengths and weaknesses in order to work with both.

The needs of infants and toddlers are obviously much different than those of a school-age child. Thus, a problem: whose job is it to provide services for this population? Society naturally looks to the schools who may not be best suited for such a task. They have an advantage, however, in that they reach everyone. Schools have a place in early intervention for infants and toddlers, but not the sole place. Special educators, too, are not the only ones deserving responsibility. Trohanis (1988) reminds the reader of the need for a "mosaic" of different services involved in this effort. Many service providers are needed. Even with interagency cooperation, is it really possible to have a successful early intervention program for the birth through two population? The answer to this question follows in the highlighting of four current early intervention alternatives.

**Current Programs for Children with Disabilities in the Birth through Age Two Population**

Venturing out of the nation, Hayden (1979) tells about England’s program for assuring that every child receives the services he/she needs. A home health visitor visits every newly born baby from his/her neighborhood at least once at the hospital and then again at six months of age. Regular, medical check-ups are made until the child is four years old to prevent health problems, provide advice to the family on diet and early assessment, and provide support for special needs.

In Scarborough, Ontario, since 1978, the public health department has been assigning nurses to a neonatal follow-up program to provide both parent education and nursing care to high risk infants. According to Barnes and Barnes (1989), at 6, 12, and 24 months, the nurse/outreach
worker visits the homes of children born at low weight and/or with scores below a five on the five minute Apgar scale. During those three visits, a Bayley scale is administered, and the results are reported to a physician and appropriate agencies. The worker also helps the parents devise a home-based infant stimulation program; helps them choose a day care center if and when that action is appropriate; and follows the child until school-age when all needed developmental records are given to the school professionals.

Closer to home, at the Hillcroft Agency in Muncie, Indiana, the Homestart Infant Program is based on the importance of the family to the child. The parents must call the agency for their child to be assessed through an early learning checklist. If the infant is found to either be at risk or have a disability, services will be provided. Director Lambert (1990) explains that all services are delivered weekly at the child's home with a professional trained in both early intervention and early childhood education.

Another Indiana agency, Bona Vista Rehabilitative Center in Kokomo, provides an Infant Follow-Along Program. Pat Wegh, director of their infant and preschool programs, tells that a doctor's statement that an infant is at risk for a developmental delay is all that is needed for program eligibility (1991). Assessment is done through a developmental checklist based on what a child developing at an expected rate would be able to do at certain points. After needs are targeted and goals are set, an infant outpatient program begins with weekly services with a therapist. Individual speech, physical, and occupational therapy are provided as needed. At about one and a half years, when the family feels group work is appropriate, infant stimulation classes begin for more hours a week. Progressively, more group work and intervention are recommended, depending on the child's needs. Assessment continues with a thorough check every month and a developmental assessment with the family every six months.

Each of these programs offers some positive alternatives for infants and toddlers. Once the child reaches the magical age of three, however, the family is faced with a transition into preschool services. Although that transition can be rocky, the Office of Special Education and Rehabilitative Services (1989) points out that service providers can prevent that by including steps in the IFSP to
assure a smooth transition. It is a vital transition as it takes the child into another component of PL 99-457: preschool special services.

Services for Children with Disabilities in the Three through Five Year Old Population

In 1975, PL 94-142 mandated services for children with special needs beginning at age six. Eleven years later, similar services were mandated for children aged three through five. In 1988, according to Smith, more than 50 percent of the states had these intervention services in place. Each year, more comprehensive services are offered to these young children. PL 99-457 provides additional financial assistance to serve children already identified and a monetary bonus of up to $3,800 for each new child expected to be served under the law (Office of Special Education, 1989). Preschoolers with a diagnosed physical or mental condition with high probability of a developmental delay or with a significant developmental delay are eligible for services. Lambert (1990) stresses that constituents asked for a section of PL 99-457 to include "at risk for developmental delay" as eligible for preschool services but were disappointed in the end result. "We feel there will be a lot of children who will fall through the cracks [because at risk only applies until age three]. The children [who fail to receive services due to this decision] will show up in about second grade" (1990). The decision to not serve at risk three through five year olds is a concern for many individuals.

Identification and screening of special needs preschoolers are similar to measures presented for infants and toddlers with an added emphasis on the inclusion of the child's behavior as noticed by parents, teachers, and diagnosticians. A young child's behavior is often affected by the presence of a stranger, causing an invalid assessment. This must be considered as various observations are made and tests are given. In a 1990 article on an option for assessment of young children, LeVan presents his usage of clinical sampling: a procedure of identifying emerging and established skills in several developmental areas through observation and direct interaction within the child's natural environment. He found that standardized tests, stressing structure, control, complex instructions, and uniformity have little value with young children, especially those with language, visual-motor, or hearing problems. Using a child's natural active, inquisitive,
imaginative, and explorative characteristics, LeVan designed this strategy to elicit a child's highest functioning abilities. It is a way of making the assessment conform to the child's characteristics rather than vice versa. The sampling takes on a shopping structure as a shopping list of skills guides the evaluator to assess skills, from basic to complex, as the child displays them, not essentially in the order they appear on the list. Using familiar and favorite objects and toys, the evaluator, with the parents' help, elicits skills from the child emphasizing enjoyment and success. Despite its simplicity, it is innovative and efficient!

Once the child is assessed and is considered eligible through some sort of categorical labeling, that individual label can be put away according to Wegh (1991), who refers to her young children with special needs simply as her "Preschool special education classroom". A classroom of this type should provide facilities suitable for young children. In 1983, the National Association for the Education of Young Children listed such factors for space facilities and child/teacher ratios for children without disabilities. To engage the children in developmentally appropriate activities, 35 indoor square feet and 75 outdoor square feet per child are needed. Ratio-wise, there should be no more than seven to ten preschoolers per teacher (Smith & Strain, 1988). Special needs preschoolers should have more individual instruction. Also, related to the physical setting of the room, the Carolina Curriculum for Preschoolers with Special Needs (Johnson-Martin, Attermeyer, & Hacker, 1990) designated these seven learning areas for separate activities: pretend area for dress up and kitchen play; messy area with a sandbox, water table, and painting easels; quiet area with carpet, pillows, books, and puzzles for thinking; constructive area with blocks and sorting/categorizing materials; manipulative area with popbeads and Play-Doh; visual-motor area for drawing, coloring, and cutting at small tables; and active area with tunnels, trampolines, and slides. These learning areas help the preschooler differentiate between appropriate behaviors expected in each area.

The classroom should also be decorative, colorful, and equipped with learning and play tools as was observed in the preschool classrooms at the Bona Vista Center (Wegh, 1991). Their curriculum centered on topic work such as family, America, or baby animals. With a
heterogeneous group of children, individualization is challenging during group activities, but possible by having each child focus on individually needed skills. Group cooperation and play can be successfully combined with individualized instruction. Grouping of the children is also a concern in the classroom as integration of children with and without disabilities is attempted but not always found successful. True integration, points out Smith and Strain (1988), is more than "episodic flirtations" (p. 44) like playground or lunch time together. It is sustained interaction between these two groups that has the possibility of improving their social and communication performance.

Similar to the prospect of infant-toddler programs, the reader may question the success possibilities of preschool programs for special children. May (1987) presents four types of program models for use with young special children. The child developmental model, such as Head Start, focuses on enrichment through multiple activity centers. The sensory/cognitive model, such as a Montessori school, utilizes materials designed for a young child's developmental level. The verbal/cognitive model, recommended by Piaget, uses structured teacher-child interaction to help youngsters with more severe disabilities. The specialized model is more individually designed for children in limited categories such as Down's Syndrome. These models have been implemented in different programs nationwide. Brief descriptions of three specific programs follow.

**Current Programs for Children with Disabilities in the Three through Five Year Old Population**

In Urbana, Illinois, since 1973, two early childhood classrooms have served all three through five year olds eligible for special services. Yearly, 120 children are served in either a three hour morning session for special needs students or a similar afternoon session for children from low-income families. Weiner and Koppelman (1987) highlight this program for its strong involvement and education of the parents. "The parents in the program are as individual and special as the children themselves" (p. 67). The parents are involved in several conferences and home visits yearly; receive newsletters of ideas and information; participate in day or night classes on parenting special needs children; and visit the school often for observation of class activities.
The Carolina Curriculum for Preschoolers with Special Needs (CCPSN) serves children with mild delays with slow but typical development and children with multiple disabilities with atypical development. Johnson-Martin et al. (1990) point out that this program assesses developmental levels with a list of skills in the order in which they should be taught, not by the ages at which children without disabilities usually learn the skills. Their attempts at individualization, too, are noted. Although many professionals often assume that all children must work through every developmental domain, eventually achieving all of the skills demonstrated by children without disabilities, CCPSN providers realize that some disabling conditions, such as fine motor or visual motor disabilities, make whole sequences of skills inappropriate for some children (Johnson-Martin et al., 1990). A sequence may need to be removed or modified from a child's assessment and/or instruction. Some unique characteristics of the CCPSN make it a widely used, successful program.

One of Bona Vista's preschool programs is an integrated one that allows children to go to a community preschool a few days a week and receive special preschool services at Bona Vista the other days (Wegh, 1991). Communication with the regular education teachers is ongoing through weekly phone calls, monthly visits, provision of inservice training, and inclusion of regular education teachers in parent conferences. This approach is especially appropriate for preschoolers with mild delays and disabilities.

The completion of preschool brings on yet another transition: entrance into public school kindergarten. This transition transfers the child and introduces the family to what can be a whole new spectrum of services and experiences including a categorical classroom. The 1989 Missouri manual on early childhood special education proposes the following steps for a smooth transition into kindergarten: develop an evaluation plan to determine placement in categorical special education; notify parents of purposes of reevaluation; evaluate and determine strengths and needs; determine eligibility for special education services; develop IEP; determine placement; notify parents of placement change; and transmit any applicable information to the public school staff (Missouri Department of Elementary and Secondary Education, 1989). Through careful adherence
to such guidelines, a smooth entrance into kindergarten will be an excellent introduction to the public school system.

Steps to a Successful Implementation of Public Law 99-457

A thorough understanding of the law's components and the needs of children in both infant and preschool programs is vital to effective implementation of an early intervention system. In a 1983 article on program models for young children with disabilities, Filler notes yet other areas deserving study for successful early intervention. His five components include acquisition of a program philosophy or theory, personnel preparation, clearly specified curriculum, family involvement, and program evaluation. A few of these components have been touched on previously but deserve added discussion here.

Program Philosophy

To implement an early intervention system without a clearly defined philosophy on child development and intervention is similar to entering the field of education without a philosophy of what school should be for children. A philosophy or theory is needed to guide the planning and implementation of administrators and service providers. Most prevalent today are the remedial and preventative theories. The remedial approach places primary emphasis on the functional teaching of skills that are of practical use to the child. It attempts to remedy the problem once that problem is present. The preventative approach, states Barnes and Barnes (1989), attempts to prevent the degree of delays caused by the high risk conditions and thus reduce the amount of special education required during school. This approach parallels our world's current and growing approach to physical and mental health through exercise, nutrition, and lifestyle changes. For children, the prenatal, perinatal, and some postnatal conditions that cause developmental delays may not be completely preventable; however, the way those conditions are dealt with in early years may prevent larger problems. Many states combine these two effective approaches to form their theory of early intervention.

Personnel Preparation

Personnel preparation is currently a main concern for schools and agencies as insufficient
interest and limited funds for salaries have caused shortages, according to Meisels et al. (1988) in needed special educators and therapists. Burke, McLaughlin, and Valdiviesco (1988) state that in 1986, 32 of the 57 American territories were experiencing critical personnel shortages in the early childhood area. With the increased emphasis on early childhood special education, locating enough individuals with appropriate training is becoming impossible. Gallagher (1988) notes the most logical way to solve the problem is for higher education institutions to train in a transdisciplinary manner, giving all individuals who will work with special needs infants and preschoolers the knowledge and experience they need. The content of such training, according to Burke et al. (1988), should include the development of infants and children with and without disabilities; assessment materials and techniques; teaching strategies for all content areas; available curriculum; not to mention information on existing laws and regulations for early intervention. Logical this solution may be, but quick it is not. Recognition of this fact has led the state departments of education to pressure universities to reduce coursework and the states to lower training standards for certification (Burke et al., 1988). The lowering of requirements may increase the numbers of eligible personnel, but will it assure high quality among staff and programs? According to a study of a special education training program, "the most potential force on program content is the state certification requirements" (Burke et al., 1988, p. 77). The need for stringent standards of training to meet the law’s intent is clear.

Extensive, in-service training of existing personnel is also a must to assure proper preparation. Information such as clarification of PL 99-457’s legal requirements; the statewide early intervention system; IFSP writing procedures (Burke et al., 1988); ways to mesh the existing system with the new system; and ways to share expertise and resources statewide should be included. Provision of training and knowledge for the thousands of professionals needed to meet the intent of PL 99-457 is and cannot be an easy task. But as Burke et al. (1988) remind the reader, in the late sixties and early seventies, the nation was faced with similar shortages in the area of special education. Now, special education services are provided to a larger population of eligible children than were provided in 1975. Through comprehensive training programs, quality
services will become more readily available for younger children.

Curriculum

A clearly specified curriculum is required to assure that the individual needs of every child are met through adherence to the program's philosophy. Similar to many authors' mention of the five to six areas of a child's development, Mapes et al. (1988) note seven areas of development for inclusion in a curriculum: perceptual, conceptual, gross motor, fine motor, prelanguage and communication, social-emotional, and self help skills development. Involving all of these areas is especially important in the preschool program to maximize the child's development through child initiated and oriented activities. The curriculum should challenge the preschooler to make choices and interact with others without causing stressful situations.

An important choice for administrators of early intervention programs is how to design the curriculum in a way that promotes the least restrictive environment (LRE). Often the LRE has been equated with mainstreaming, which is often not the case. In a 1990 article, Bailey and McWilliam discussed normalization as an effective key in providing the LRE. "The least intrusive and most normal strategies should be used to achieve effectiveness" (p. 33). The goal of normalization is getting children with disabilities in a "real" environment with "real" play to promote a smooth transition later in life. Bailey and McWilliam (1990) point out that this environment can be enjoyable, by containing materials and expectations similar to those in programs for children without disabilities, but can still achieve desired behavior changes. In 1976, Nirje presents normalization clearly as "making available to all mentally retarded person patterns of life and conditions of everyday living which are as close as possible to the regular circumstances and ways of life of society" (p. 231).

Family Involvement

During the discussion of the 14 components of PL 99-457, the importance of family involvement was mentioned. A mention, however, is not sufficient as Bronfenbrenner stated in 1975:
The family seems to be the most effective and economical system for fostering and sustaining the child's development. Without family involvement, intervention is likely to be unsuccessful and what few effects are achieved are likely to disappear once the intervention is discontinued (p. 470)

This true statement is muddled, however, by another complication: the changing structure of today's family with more single parents, working mothers, and indifference of society to these families (Hayden, 1979). Some individuals may conclude that today's parents are not capable of providing the care that is so desperately needed by special infants and preschoolers. Dr. Burton White, founder of a center for parent education, believes, however, that most parents do have the ability to be good teachers of their infants and children if they are treated with understanding and support (1975).

There seem to be three areas of concentration to achieve successful family involvement: acceptance of the family and their feelings; recognition of what we, as professionals, need from the family; and recognition of what they need from us. Acceptance in all things is not easy. Families of children with special needs often undergo and display feelings of anger, confusion, loneliness, emptiness, failure, and guilt. Trout and Foley (1989) recognize that the family may struggle with losses of self-esteem and control over their lives, their future, and even their daily routines. At times, professionals may become frustrated with the feelings of the family. Can't they come to terms with their children? Don't they see how much their child needs them? We, as professionals, forget to see and accept them as humans who naturally experience these feelings, especially during such an overwhelming and isolating event. The acceptance and support is our responsibility, because the family may receive those things from no one else.

Once an acceptance is established between the family and the service provider, the parents need to know that they are a vital part of their child's program. There are many things that the professionals need from the families. Realization of this should give the family a needed and deserved sense of control over their family's future (Able-Boone, Sandall, & Frederick, 1990). Turnbull, Blu-Banning, Behr, and Kerns (1986) note that parents appreciate the opportunity to
share their perceptions rather than always being informed of the professional’s assumptions. Professionals need parental perspectives on the child’s and family’s needs and strengths. They also need to know how the parents feel about the various components of the new law. In an Able-Boone et al. (1990) study of 30 families involved in early intervention services, they learned that parents agree with family assessment if it is sensitive, private, and relaxed. The IFSP should take the parents’ financial resources in mind to create a realistic plan. Some parents would also appreciate support groups to aid them in the daily care of their child.

The third area for consideration is recognition of what the parents need from the professionals. The decisions parents with special needs children are faced with can be overwhelming. Ziegler (1989), with insight, states "Making decisions is responsibility: making effective decisions is power" (p. 85). To help make their decisions effective, professionals owe parents a range of information and simple ways to access it. The Able-Boone (1990) study found that 69 percent of the thirty families studied had difficulty accessing services due to their lack of information on available community resources. Ziegler lists several kinds of information and skills needed by parents to make responsible decisions: information on their child’s specific disability including treatment choices and success stories; on relevant laws; on available community services; and on financial assistance. This amount of information, however, must be kept reasonable to prevent frustration and weariness. Aside from this information, parents also appreciate options for involvement. Missouri recommends the following options in their manual on early childhood special education: parent groups; parent education with other parents as the teachers; classroom observation; classroom volunteering; home visits; and materials prepared individually for the parent and child to share together (Missouri Department of Elementary and Secondary Education, 1989).

As Bronfenbrenner (1975) stated, without family involvement, early intervention is nearly useless. Trout and Foley (1989), too, note that work with families should be a "given" in early intervention, not an option. The family is the infant’s or child’s ecological system, the core around which all else revolves. Due to an emphasis on the natural environment, the eighties have brought
the U.S. into a state of ecological awareness, where any small change in the system affects the whole system. This is true, too, with the families of infants and preschoolers. "We do not know a child unless we know his/her family" (Trout & Foley, 1989, p. 59).

Program Evaluation

The last component of successful implementation, as mentioned by Filler (1983), is program evaluation. To assure that state programs are meeting the standards of quality expected by the law's creators, Martin (1989) advises that each state be monitored through visits and required submission of reports. Research is still surfacing and will continue to surface about "what works" in early intervention. Part of that research should include reports of the results of every state's efforts. This is essential for future revisions to improve programs nationwide.

Current State Level Early Intervention Programs

Throughout this paper, many early intervention programs have been mentioned. Curiosity leads the reader to question what is happening on the state level for young children with special needs. According to a national analysis by Campbell, Bellamy, and Bishop in 1987, seven states had full special education mandates for infants from birth through age two (IA, MI, MD, NB, NJ, OR, and SD). Four states had partial mandates serving infants with specific diagnostic labels (DE, OK, TX, and VA). Ten states were involved in planning projects to develop services for infants and toddlers, while remaining states had no mandates or previous participation. Preschool services for children with special needs were available in the vast majority of states, according to the U.S. Department of Education in 1985 (Weiner & Koppelman, 1987). Priority-wise, data collection was high on the list for most states, while longitudinal training activities linked to local universities was only targeted by one state (Campbell et al., 1989). The emphasis of the majority of states, according to their responses on Campbell et al.'s questionnaire, was on delivery rather than planning activities. Considering that "administrative planning activities underlie well coordinated collaborative, interagency services" (Campbell et al., 1989, p. 38), this fact is surprising and disappointing. More specific review of information concerning three midwestern states is included here.
Indiana, a state with little previous widespread involvement in special services for infants and preschoolers, adopted Senate Bill 257 in 1990. This bill, subject to state funding, requires every school corporation to provide each preschool child with disabilities with appropriate special education beginning with the 1991-92 school year. This followed a State Department of Education's appropriation of $12 million in their proposed budget for this age group (Wegh, 1991). The funding may be a trouble spot for Indiana, however, as possible large funding cuts may force the state and individual school corporations to revise their plans. Despite economic concerns, six-seven Indiana task forces were formed to study various components of PL 99-457. According to Dr. Joan Osgood, associate professor of special education at Ball State University, director of the Ball State Home Learning Center, and member of one of these task forces, these groups were designed to study several components and then make recommendations to the state for implementation (Osgood, 1990). The forces, composed of individuals from different professions, were transdisciplinary in nature. Osgood's doubts about Indiana's involvement in early intervention are partially based on Indiana's financial emphasis on other programs, like basketball! She is originally from Michigan, a state that has been active in early intervention since the 1960's. Her doubts are compounded by the fact that her center, which provides services to hearing impaired preschoolers, had not been approached about the new law as of November, 1990. Considering that those services are supposed to be put into effect for the 1991 school year, that is surprising. "This area has made no commitments, so it is being ignored" (Osgood, 1990).

Michigan, as mentioned, has provided services in the public schools for infants and preschoolers with special needs since the sixties. The new law does not have the same effects on Michigan as it does on Indiana. Michigan places great emphasis on the need for family-centered, community-based care. This information comes from an attractive folder about early opportunities for special infants and their families (Michigan State Board of Education, 1989). With the Michigan Department of Education as the state's lead agency, Michigan has formed not only a state interagency coordinating council but local ICC's to meet local challenges. These folders plus newsletters and an informative videotape about PL 99-457 are distributed to and used with
thousands of parents and other adults to promote public awareness and an understanding of available services. Workshops and conferences are held to educate and update professionals on relevant information. The Michigan universities, too, provide courses specifically addressing early intervention for infants and toddlers. Their programs have been very successful, proving to society that such a system is possible and effective.

Missouri, in its first step toward mandated services for preschoolers, recently saw the State Board of Education request a large amount of state funds for the expansion of early childhood special education programs. This expansion, according to their planning manual, would serve an estimated 50 percent of the children ages three and four with disabilities (Missouri Department of Elementary and Secondary Education, 1989). Now, through Senate Bill 740, local education agencies will be required to provide special services to eligible three and four year olds with disabilities beginning with the 1991-92 school year. The manual outlines the planning, curriculum, parent involvement, and administrative guidelines necessary for implementation of these preschool programs. This look at the states is small in scope but gives the reader an idea of the different stages in which the states are currently in and the approaches they are taking.

Cost of Early Intervention

By looking at each component of PL 99-457 individually, the reader sees the need for successful implementation of each part. Looking at the components grouped together as a whole, many individuals see the cost. No one can deny their reservations that the cost of such a comprehensive system could decrease its importance. Garwood and Sheehan (1989) state that for the fiscal year 1988, the amount available to the states for Part H of PL 99-457 was above $67 million. With a tightening national economy that, Smith reminds the reader, requires legislators to weigh every policy decision against all other competing interests and values, cost must be a concern. A portion of that concern is due to questions of how much aid the federal government will provide. In 1975, Congress promised to pick up 40 percent of average per pupil costs for students served under PL 94-142. Weiner and Koppelman inform the reader that as of 1987 no more than 12 percent has been received from the federal government. For PL 99-457, Congress
has promised increasing amounts of money per child based on the year ($300/child in fiscal year 1987; $400/child in 1988; $500/child in 1989; topping out at $1,000/child in 1990) (Weiner & Koppelman, 1987). State lead agencies are apprehensive to believe in these federal economic promises.

A second portion of that concern, for some school administrators, is how increased funds for special education will affect regular education. Worries that the children with disabilities are "taking money away" from the regular education children amaze F. Weintraub, assistant executive director of the CEC.

There seems to be a notion that there is a single pot of money that handicapped kids sneak into school in the middle of the night and steal. I didn't hear anyone say they built a new science lab in the high school and that took away from handicapped kids; they gave money to the football team and that took away from handicapped kids

(Weiner & Koppelman, 1987, p. 14)

Those administrators seem to want children with disabilities to get their own money for their programs. This type of philosophy will take education, in general, nowhere!

Setting these concerns aside, what will the actual cost of future services be? This question, though difficult to answer, was addressed by Barnett in 1989. Based on estimates generated by both the Congressional Budget Office and the U.S. Department of Education, the cost of preschool special education for 1990 falls in the range of $1.7 to $8.3 billion, an annual increase above current levels of service from $0.3 to $6.7 billion, depending on the degree of increase of those children served. These numbers must be considered estimates since early intervention decisions are still being made nationwide. Whether or not the estimates are completely accurate, they still clue the reader into the economics of such a system. Such increases are necessary and should be accepted to achieve later, positive results.

There are several, including the following four, ways to combat these economic implications. The first is to make the best use of existing federal, state, and local funds. House Report 99-860 stated in 1986 that "It is Congress' intent...that there be greater coordination
among agencies regarding the payment of costs" (U.S. House of Representatives, p. 15). The second is to carefully choose between program possibilities with cost effectiveness in mind. According to Barnett (1988) parent education and mainstreamed settings for preschoolers have proven to be less expensive than some other models. Smith and Strain (1988) note that a choice between program types is better than choosing between some and no intervention. The third is Smith and Schakel's (1986) recommendation that schools throw themselves into the program now to receive available funding. If fewer schools participate, there will be fewer advocates talking to Congress, fewer Congressional debates on the issue, and thus fewer future dollars. Current participation will allow states to submit numbers of eligible children which will assure better funding. Smith and Schakel (1986) believe the resources are available if program coordinators are willing to examine their priorities.

The fourth way involves the most stressed point of early intervention advocates, that the earlier intervention begins for these children, the greater their chances for success. That also applies to economics. The House Select Committee on Children, Youth, and Families found in 1985, that for every dollar invested in preschool special education, there is a three dollar reduction in special education costs later. This could save as much as $16,078 per child (May, 1987). In a different study in 1981, Wood calculated the total costs of services to age 18 with intervention beginning at birth, two, and six. Services begun at birth were averaged at a cost of $37,273; where services begun at age six ranged from $46,816 to $53,340 (Smith & Strain, 1984). Studies in Tennessee (1974) and Colorado (1983) paralleled these findings, showing that for every one dollar spent on early intervention, $4.00 to $7.00 in savings were realized within three years (Smith & Strain, 1984). All four of these ways to combat economic implications lead the reader back to an understanding of both the cost of early intervention and ways to handle that cost. The basic problem, according to Hayden (1979), is whether or not we will fit these children's needs into our budgets. If not, do we just continue making excuses for the lack of services instead of admitting what a bad job we have done? Helping at risk infants and preschoolers and those with disabilities to achieve happy, successful lives is our goal. Indeed, is that what we are after?
Efficacy of Early Intervention

When one considers the numerous components and implications of such a system, the question of efficacy no doubt comes to mind. How efficient early intervention is should have an impact on the decisions surrounding its implementation. Many efficacy studies, unfortunately, have taken a narrow view of what constitutes efficacy, solely considering child progress. Bronfenbrenner noted in 1979 that our view of program efficacy must consider the ecology of the family and surrounding environment. In a 1987 study done to review 64 efficacy studies, Dunst et al. (1986) found that only nine of those reviews evaluated the extent to which early intervention services affected parent, child, or family functions. A broader-based measure of effectiveness should be used to include parental well-being, family integrity, parent-child interactions, child behavior and development, community acceptance, to mention a few (Dunst et al., 1986). This same article listed some general results found through their review. The good studies found moderately positive effects of early intervention. Best and most convincing results were seen through intervention with environmentally at risk infants and youngsters. Programs promoting involvement of parents were more effective, especially in the birth through two age group. Dunst et al. (1986) were careful to mention that these conclusions about early intervention efficacy are "tentative and conditional" and should be considered "relative rather than absolute" (p. 285). It is best if one uses careful study of the information presented here and in other studies to form a personal theory on early intervention efficacy.

A Personal Look at Early Intervention

The implementation of such a complex system of early intervention forces us to accept a concept that often instills fear in the hearts of many: change. Bowman (1981) recognizes that "change has a tendency to make us anxious and pessimistic, but it is frequently from change that our most innovative and effective programs arise" (p. 49). The current programs of early intervention, although still in beginning stages, represent a "victory in principle" (Martin, 1989, p. 31) in the passage of PL 99-457. For years, professionals have been dreaming about the possibility of mandated services for infants, toddlers, and preschoolers with special needs. Their
ideas and studies have travelled a rocky but successful road to reality. That reality, though, must be regulated by a sense of patience and understanding that we cannot assume high quality services overnight. A nationwide program of this magnitude, involving children, parents, educators, health care professionals, social workers, scholars, and government officials, deserves and requires time. We must have faith and expect high quality services.

The fear of change, of which so many of us are guilty, is not without reason. Change, according to Mack (1981), "asks you to alter the way you behave -- to rethink what you can expect from others and what they can expect from you" (p. 5). Before you let your fear of change cause you to doubt a comprehensive system of early intervention, consider the millions of children who could achieve new successes through such a system. In the future, you too may know a child or family, maybe your own, who has special needs. Is it worth letting the opportunity to help your child pass by because of fear?
References


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