



Land Grant Permanent Fund: Opportunity for Early Childhood Investment

A SUMMARY OF THE EVIDENCE AND AN EXAMPLE OF POSSIBLE FUND USES

ST. JOSEPH COMMUNITY HEALTH

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1. PURPOSE AND STRUCTURE OF REPORT

The purpose of this report is to provide greater information about potential uses of the LGPF funds, based on evidence about effective approaches to improve school readiness and performance. In order to successfully implement the state's commitment to enhancing early childhood experiences and achieving measurable results in school readiness and achievement, several factors are key:

- Availability and appropriate allocation of adequate, sustained public and private resources to enhance existing programs and expand availability to more children and families;
- Deliberate use of evidence-based strategies and programs demonstrated to impact the desired results;
- Definition and tracking of clear, measurable results that address school readiness, achievement, and other desired results, to ensure accountability and continuous improvement.

The proposed constitutional amendment to utilize 1.5% of the Land Grant Permanent Fund (LGPF) to support early childhood learning over a ten year period provides a crucial and unique resource to move forward with New Mexico's commitment to its children and families. The LGPF funds will be used to enhance school readiness and performance by providing stable, long-term resources to build the needed systems to enhance quality and to expand access to evidence-based approaches to early childhood learning. Funding will be phased in over the first three years, providing an estimated \$50 million in FY2013, \$100 million in FY2014, and \$150 million in FY2014 through 2023. Progress will be evaluated before any additional allocations will be made.

The information in this report is organized around an evidence based framework, *Pathway to Children Ready for School and Succeeding in Third Grade* developed at Harvard University with funding from the Kellogg Foundation and the Annie E. Casey Foundation. The framework is based on a comprehensive synthesis of research and evaluation on the desired outcome, young children's success. Six goal areas, derived from the evidence, are presented as key to achieving that outcome.

For each goal area, the following information is provided:

- A brief summary of the evidence about the importance of that goal area to the outcome;
- Description of some evidence-based approaches that have successfully addressed the goal;
- Some information about New Mexico's major recent initiatives in this area;
- Relevant funding streams in New Mexico, including possible areas for LGPF investments.

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The report concludes with two summaries. The first presents evidence-based approaches in relation to the goal areas. The second provides a financial estimate of levels of unmet need for these approaches and an example of possible LGPF funding of selected programs.

This example of possible use of LGPF funds is provided, *not as a recommendation*, but as a catalyst for additional conversation among the early childhood community, the Legislature and Executive Branch, business and other private sector leaders, and parents and families. No specific programmatic allocations are included in the proposed enabling legislation or constitutional amendment language. If the constitutional amendment to allocate LGPF to early childhood is approved by the New Mexico public, funding decisions would be made at that time by the Legislature and then implemented through relevant state departments.

In addition to providing a concrete example of possible allocation of LGPF resources, the information in this report may also be useful in determining allocations of state general fund resources. (Recent suggested FY 2012-3 budget additions from both the Governor's Office and the Legislative Finance Committee on early childhood are programmatically consistent with these recommendations. However, the General Fund resources are much more limited than those that could be available through LGPF funds designated for early childhood.)

2. EARLY CHILDHOOD DEVELOPMENT IN NEW MEXICO

Over the past fifteen years, early childhood care and education has become a central priority for a broad segment of New Mexicans. Across all walks of life and all types of New Mexico communities, there has been a growing interest in enhancing early childhood systems and expanding opportunities for more children to benefit from high quality early learning opportunities. School outcome measures such as third grade reading proficiency and high school graduation rates document the urgency and importance of the need. New Mexico has the lowest third grade reading scores of any state (National Center for Education Statistics, 2011). Growing scientific evidence demonstrates that proper supports in the early years (0-5) are essential, as rapid brain development in these years sets the foundation for school experiences. Vocabulary development by age three has been found to predict reading achievement by third grade (Feister, 2010). By the time children from low-income families enter kindergarten, they are typically 12-14 months below national norms in language and pre-reading skills (Feister, 2010).

More must be done, and much earlier in a child's life, to support families, communities, and schools in preparing children to learn effectively. Growing scientific evidence and program evaluations have demonstrated that there are solid interventions that deserve public and private investment, to benefit the children and families and to support solid economic growth for New Mexico.

The Rand Corporation, a nationally recognized research and evaluation center, reviewed the evidence on early childhood investments and reached these conclusions:

“The period from birth to age 5 is one of opportunity and vulnerability for healthy physical, emotional, social, and cognitive development. A sizable fraction of children face risks that may limit their development in the years before school entry. Variations in early childhood experiences are manifested in disparities in school readiness, and these gaps often persist. Scientific research has demonstrated that early childhood interventions can improve the lives of participating children and families” (Karolyn, Kilburn, Cannon, 2005).

A highly dedicated New Mexico early childhood community has worked for many years on these issues, developing an approach that emphasizes the importance of a “system of systems” across existing programs and funding streams. For example, the state's 2010 Early Learning Advisory Council set five objectives:

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- Establish an aligned early learning system;
- Increase the participation of children (especially those at risk for school failure) in the highest quality programs;
- Establish family support as a recognized early learning system and ensure that a continuum of services is available;
- Align the early learning system with the K-3 public education system;
- Establish an integrated data system with a unique identifier system and a data warehouse.

The state has consistently recognized that children’s school readiness encompasses five dimensions: physical well-being and motor development; social and emotional development; approaches to learning, language development, and cognition and general knowledge. In order to achieve those results for children, the three domains of family, school, and community must each play its role in supporting children (Winograd, Ruth, Gonzales, Tefera, Haggard, & Scharmen, 2011).

In 2011, the state of New Mexico Departments of Children, Youth, and Families, Public Education, and Health defined a “reform agenda” for early learning, described as:

“Focus on the creation of an early care, health, and education ‘system of systems’ that focuses less on the categorical identification and segregation of children and focuses more on the building of community-specific, comprehensive and integrated services to ensure that every child has equitable access to appropriate services and supports that acknowledge their uniqueness and enable them to reach their full potential.”

This reform agenda was the foundation for a recent proposal for “Race to the Top” funding to the federal Department of Education, requesting \$50 million over four years to develop the early childhood system. Although that proposal was not funded, it articulates the state’s priorities to build early childhood system capacity. These four objectives were defined as:

- Use the New Mexico Early Learning Guidelines Birth through Kindergarten as the foundation for alignment of systems and improvement of program quality;
- Fully implement FOCUS, the revised Tiered Quality Rating and Improvement System to focus on children’s learning outcomes;
- Expand and align data systems;
- Establish Early Childhood Investment Zones (NM PED, CYFD, and DOH, 2011).

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The Race to the Top proposal also provides important information about some high risk groups of young children (birth to kindergarten entry) in New Mexico:

- 96,986 children are in low-income families, representing 53.8% of all children ages 0-5;
- 19,355 children have disabilities or developmental delays, representing 11.1% of the children;
- 54,894 are English learners, representing 30.5% of all children;
- 24,808 are Native American, or 13.8% of all children;
- 9,807 are born to adolescent mothers, or 5.6%;
- 15,162 were low or very low birth weight babies, or 8.7%.

A briefing paper for the Legislative Finance Committee hearing in August 2011 on Early Childhood Services described the desired characteristics of a system of early childhood care and education as “developmentally, culturally, and linguistically appropriate; data-driven; accountable through developmentally appropriate methods of measuring, reporting and tracking a child’s growth and development; accessible; high quality; aligned within communities; family centered; and a partnership between the state and private individuals and institutions” (Legislative Finance Committee, 2011).

A special thanks is due to New Mexico Voices for Children for the financial modeling analyses included in this paper.

B. PATHWAYS TO SUCCESS FRAMEWORK

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The framework used in this document, *Pathway to Children Ready for School and Succeeding at Third Grade*, was developed by the Pathways Mapping Initiative at Harvard University, supported by the W.K. Kellogg Foundation and the Annie E. Casey Foundation (Schorr and Marchand, 2007). The project reviewed hundreds of research and evaluation articles and practice learnings and organized the information in a unifying framework which has been recognized for its clarity, rigor, and utility and is being used by such groups as the National Center for Children in Poverty. It is well respected nationally and by many in the New Mexico early childhood community. The graphic overview on the following page summarizes the key elements of this Pathway.



Several aspects of this Framework are particularly important:

- The focus on third grade performance is consistent with the evidence that has developed over the last ten years that any one intervention alone is not adequate to achieve sustained results at the third grade reading level. One challenge with some early childhood efforts has been the “fadeout” of results once K-12 schooling begins. The national KIDS COUNT leadership, funded by the Annie E. Casey Foundation, recommended that the country “develop a coherent system of early care and education that aligns, integrates, and coordinates what happens from birth through third grade” (Feister, 2010).
- The recognition of the importance of socio emotional and health factors (as well as cognitive development) is consistent with the evidence. A major national study of children in kindergarten used information from parents and teachers as well as standardized assessments to identify kindergartners who were lagging behind in basic, needed skills. Of the 40,000 children in the study, 56% were deemed not ready for kindergarten. The most frequent concern was a health concern, with 36% of the children having at least one health concern. Thirty percent lagged in socio-emotional development, and 25% of the children demonstrated delays in their cognitive development. The overlap of the three areas was significant, with only 6.5% of the children experiencing a delay only in the cognitive area (National Center for Educational Statistics, 2004).

New Mexico does not currently have a standard kindergarten readiness assessment tool that includes cognitive, behavioral, and health components to provide a snapshot of the status of kindergarten readi-

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ness across the state. One measure, gathered through a national survey, provides some perspective on the presence of possible barriers to successful school experiences: 22.7% of New Mexico young children ages 4 months to 5 years are at moderate/high risk for developmental or behavioral delays, a rate that is unfortunately higher than other states: New Mexico ranks 13th highest in the US (Commonwealth Fund, 2011).

James Heckman, the Nobel Prize-winning economist known for his evaluations of the cost-benefit of early childhood investments, has concluded from his review of the evidence that “noncognitive” skills, such as motivation, sociability, self-esteem, and ability to make and execute decisions are crucial aspects of school readiness. These skills explain much of the variance in adult success. Interventions to improve them early in life can be effective and more efficient than addressing consequences at a later age (Heckman, 2007).

The Pathways framework is helpful and relevant to New Mexico’s distinctive needs because:

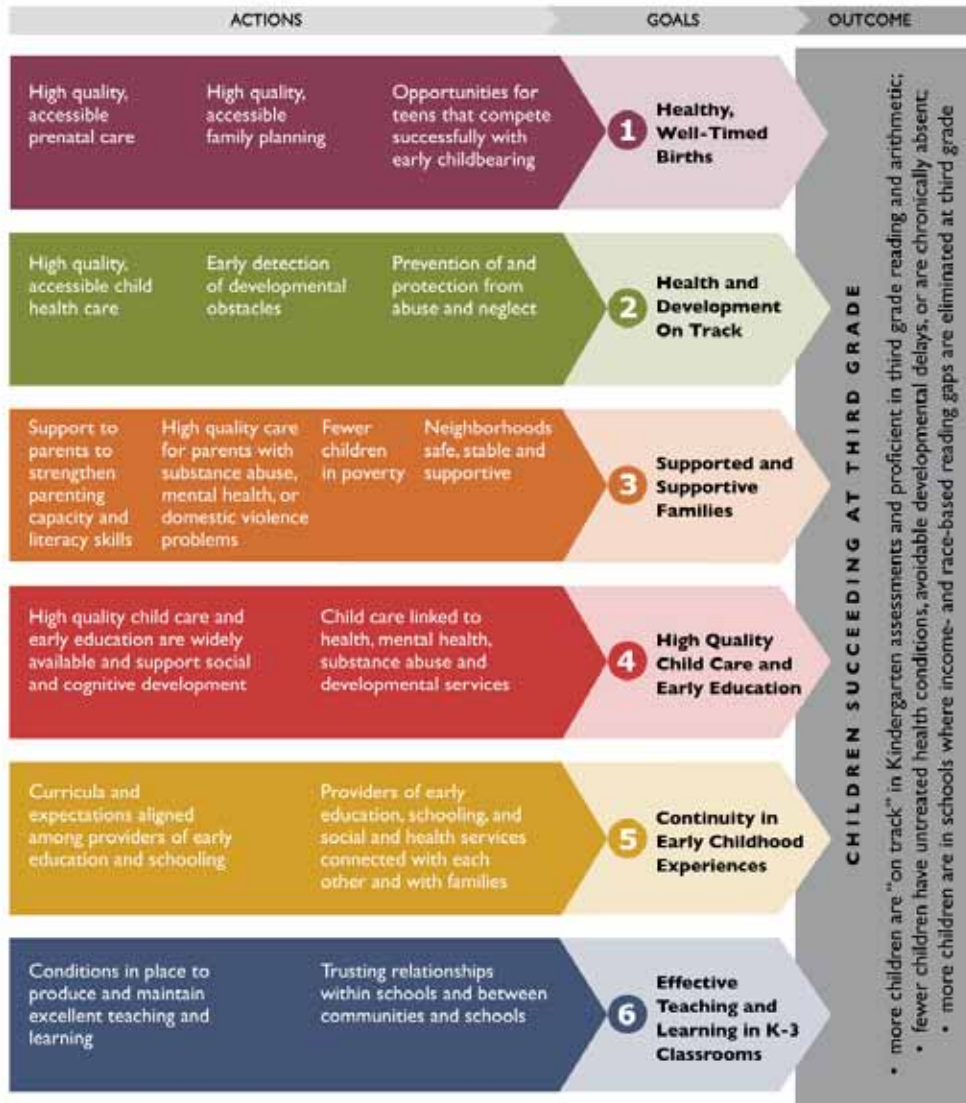
- It provides a comprehensive, overarching framework integrating the efforts and measures of many different programs, providers, and funding streams across “silos,” consistent with New Mexico’s emphasis on a “system of systems.”
- It encompasses the factors described by key New Mexico early childhood leaders and national leaders (Child Trends, 2010) as important to school success, including family, community, and school engagement.
- It recognizes the importance of physical, social and emotional development, consistent with the New Mexico reform agenda and the domains of school readiness described by New Mexico early childhood leaders.
- It aligns the recent New Mexico focus on K-3 learning experiences with early childhood initiatives, through two goal areas: continuity in early childhood experiences and effective teaching and learning in K-3 classrooms.
- It proposes outcome measures at the third grade level, including proficiency in third grade reading and arithmetic, for which New Mexico has baseline data. Many of the proposed interim indicators for progress are ones that are currently gathered and could be utilized as complementary measures.

In addition to the hundreds of articles cited by the *Pathways* document, many excellent research/evaluation articles and synopses have been published over the past ten years by national journals, think tanks, and child organizations. Many resources cite multiple research and evaluation articles for each statement. In this paper, specific references are provided, primarily from the rigorous synopses of literature. The summary list of references includes additional resources that were reviewed in the preparation of this paper.

B. PATHWAYS TO SUCCESS FRAMEWORK

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Actions Overview, Pathway To Children Ready for School and Succeeding at Third Grade



Schorr, L. B. & Marchand, V. (2007). *Pathway to Success: Children Ready for School and Succeeding at Third Grade*. Cambridge, MA: Harvard University Pathways Mapping Initiative.

1. HEALTHY, WELL TIMED BIRTHS

What is included in this goal area? Why is this area important to success at third grade?

- **High quality, accessible prenatal care:** A lack of prenatal care is linked to poor child outcomes, including low birth weight, serious cognitive impairments such as cerebral palsy and mental retardation, behavioral and learning disorders, and school failure. Learning problems in children with extremely preterm birth are evident in kindergarten (Taylor, 2011). It is estimated that each pre-term birth costs society over \$50,000 year, including medical and special education costs (Zero to Three, 2009). Prenatal drug or alcohol exposure can result in learning problems and delays in mental skills in toddler years (Schorr & Marchand, 2007). Adequate prenatal and early childhood nutrition has a positive impact on healthy brain development (Center on the Developing Child at Harvard University, 2007).
- **High quality, accessible family planning:** Planned pregnancies are associated with better child outcomes and fewer low birth weight babies. Teenage mothers are more likely to have low birth weight babies, and are less likely to provide stimulating home environments for their children. Children of teen mothers tend to have lower levels of cognitive and educational attainment and higher levels of behavioral problems. These risks increase for children born to teenagers who already have a child (Schorr & Marchand, 2007).
- **Opportunities for teens that compete successfully with early childbearing:** Success in school, meaningful employment, access to good health services, and interactions with role-model adults help prevent pregnancies. Keeping teen mothers in school and living at home may help prevent subsequent pregnancies (Schorr and Marchand, 2007).

What are some effective interventions to address this goal area?

- Home visiting programs begun by the second trimester have increased the frequency of prenatal care and better nutrition and have reduced the number of pre-term and low birth weight babies. Home visiting programs have also reduced the frequency of having a second child within two years (Center for the Developing Child at Harvard University, 2007).
- Women Infants and Children (WIC) programs have had positive effects on the use of prenatal care, birth weight, and infant mortality (Zero to Three, 2009).
- Improved access to prenatal care, health care services, nutrition, and family planning, has contrib-

C. GOAL AREA #1

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uted to healthier births and prevention of unwanted and high risk pregnancies (Child Trends, 2000).

- Teen outreach programs that include tutoring, sports, community work, and parenting education have successfully reduced pregnancy rates among participants.

What are some things that New Mexico is doing now?

- New Mexico teenage pregnancies (ages 15-17) have declined over time, but the rate is still high, at 33 per 1000 births in 2009. This rate places New Mexico at the second highest level in the country (KIDS COUNT, 2011). Most births to New Mexico teens are the result of an unintended pregnancy (New Mexico Children's Cabinet, 2011).
- Twelve percent of New Mexico births in 2008 had no or low levels of prenatal care (Annie E. Casey Foundation, 2011). Only 32% of New Mexico mothers who had a live birth in 2008 met all five elements of an evidence-based healthy birth index (Legislative Finance Committee, 2011).
- CYFD awarded home visiting contracts in FY 12 for \$2.2 million, serving 645 families (Legislative Finance Committee, 2011). In addition, approximately \$5 million of private funds have been invested in home visiting programs. However, only 3.1% of infants on Medicaid received home visiting services in 2011 (Legislative Finance Committee, 2011).
- New Mexico Department of Health's State of Health 2011 Report recommends that New Mexico should:
 - Increase support for home visiting programs;
 - Increase birthing services providers, especially culturally appropriate resources for hard to reach populations, particularly in rural communities;
 - Implement a social marketing initiative to develop awareness of pre-conception, family planning, and parenting programs.

Would Land Grant Permanent Fund resources be used for this goal area?

- **Home visiting: LGPF should be used to enhance and expand home visiting programs to serve vulnerable families, particularly teen parents.** Services should be initiated as early as possible in the pregnancy. Home visiting program models should assist with referrals to WIC, prenatal care, substance abuse, domestic abuse, and other related services, as needed.
- Prenatal care, WIC, and other health-focused services should be supported through Medicaid, state general funds, and other public and private resources.
- Teen programs that offer constructive opportunities should be supported through other public and private funding streams.

2. HEALTH AND DEVELOPMENT ON TRACK

What is included in this goal area? Why is this area important to success at third grade?

- **High quality, accessible child health care:** Healthy children are better able to engage with learning and are less likely to be absent from school. Malnutrition decreases learning ability, lowers levels of attention, and increases school absence. Dental problems also lead to a high rate of absenteeism and lower ability to concentrate in school (Schorr and Marchand, 2007).

Emotional, social, and behavioral competencies of young children are a strong predictor of academic performance in elementary school (Shonkoff, J. & Phillips, D., Eds., 2000). One in five children has a diagnosable mental disorder, and even infants can show signs of depression (Zero to Three, 2009). However, 75-80% of children and youth in need of mental health services do not receive them.

- **Early detection of developmental obstacles:** Approximately 16% to 18% of children have disabilities or developmental delays, yet fewer than 50% of these children are identified before they start school. Low income children are at greater risk of developmental delays and problems (Zero to Three, 2009). Developmental delays and emotional disturbances are significantly under-detected, leading to delays in acquiring speech, inability to maintain relationships, and other serious impediments to school learning (Schorr and Marchand, 2007). Children receiving early intervention for developmental disabilities are far more likely than the general population to be in foster care (Zero to Three, 2009).
- **Prevention of and protection from abuse and neglect:** Infants and toddlers who have been maltreated are six times more likely than the general population to have a developmental delay (Zero to Three, 2009). Children who have been neglected or abused are more likely to suffer attention deficit disorders, depression, conduct problems, reduced cognitive development, and reduced emotional stability, all important factors in school readiness and school success (Schorr and Marchand, 2007). Fear-inducing events (including experiences of sexual victimization, maltreatment, or witnessing violence) disproportionately affect children in low income environments (National Scientific Council on the Developing Child, 2010).

Infants and toddlers comprise almost one-third of all children who are abused and neglected and are the largest single group of children entering foster care. Once they are placed in foster care, infants and toddlers are more likely than older children to be abused and neglected and to stay in foster care longer (Zero to Three, 2009).



What are some effective interventions to address?

- Provision of health insurance is a key foundation. One study found that after one year of enrollment in CHIP, children were more attentive in class and more likely to keep up with school activities. Children enrolled in Medicaid and CHIP are more likely to have a medical home and are more likely to receive dental and well child preventive care, and have better access to healthcare services and providers (Zero to Three, 2009).
- Child health care provided in a “medical home,” which provides or manages referrals for parent education/support, nutrition counseling, specialist services, and assistance with health insurance, has been demonstrated to have a positive impact on receipt of necessary screenings and immunizations.
- Early and frequent dental assessments (before age 1), preventive treatments, and restorative care positively impact children’s oral health.
- High quality home visiting programs have been demonstrated to positively impact health status of the infant. For vulnerable families who are expecting a first child, early and intensive support by skilled home visitors has produced significant positive gains in social support, caregiver characteristics, positive perception of the child, reduced personal problems, and family interactions, leading to reduced incidents of abuse/neglect and improved parenting skills.
- Developmental screening protocols implemented regularly in healthcare settings enable early identification and referral for needed services. Healthy Steps for Young Children, a program incorporating developmental specialists into pediatric practices, showed improved parenting practices, fewer

child behavioral problems, increased likelihood of seeking healthcare for their children, and more encouragement of reading, sustained through age 5 (Zero to Three, 2009).

- Thirty-seven percent of the infants and toddlers who received early intervention services did not present with a disability or require special education in preschool, resulting in significant cost savings. Early interventions with high risk children can improve social competence and cognitive abilities prior to school entry, often yielding long term educational benefits (Zero to Three, 2009).
- Programs combining several elements, such as the Infant Health and Development Program (IHDP) have demonstrated positive impact on language, cognitive development, and other skills. IHDP includes pediatric monitoring, referral and follow-ups, home visits, participation in high quality early education, and support group meetings for parents (Child Trends, 2000).
- Investments in children's nutrition programs, with greater emphasis on nutrition education, physical activity, and obesity prevention have positively impacted nutrition status. WIC, Food Stamp Programs, and other federal programs have provided these supports to low income families, who otherwise were more likely to purchase low quality food or skip meals (Zero to Three, 2009).
- Trained and supported child protection agency staff are key to early identification and action on child abuse and neglect.
- Community-based networks have been shown to reduce social isolation of families, which can contribute to child abuse and neglect.
- Support for foster parents and for parents whose children are in foster care can reduce the number and length of foster placements, which often affect a child's emotional development (Zero to Three, 2009).

What are some things that New Mexico is doing now?

- In 2008-9, 84.4% of New Mexico children under the age of 18 were insured, ranking 48th among the 50 states (Commonwealth Fund, 2011).
- EPSDT screening is required 4 times for children 1-2 years and 3 times for children 3-5 years of age under Medicaid. However, in 2007, only 87.2% of children had a preventive medical visit in the past year, ranking New Mexico 29th among the states (Commonwealth Fund, 2011).
- Healthcare providers are developing medical home models, with the support of Medicaid. In 2007, 49% of New Mexico children had a medical home, which is the lowest rate of any state in the US (Commonwealth Fund, 2011).
- In 2007, 29.6% of New Mexico children between 10 months and 5 years received a standardized developmental screening during a health care visit, a rate that is fourth highest in the country (Commonwealth Fund, 2011). This screening is particularly important, as New Mexico ranks 13th in the country (at 22.7%) in the likelihood that young children (ages 4 months to 5 years) are at moderate/high risk for developmental or behavioral delays.

C. GOAL AREA #2

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- NM Department of Health's Families Infants and Toddlers program (FIT) provides early intervention services to infants or toddlers who have or are at risk of a developmental delay. In FY 11, FIT served 12,707 students, with an average cost of \$3463 (Legislative Finance Committee, 2011). The FIT 2012 budget for FY 12 was \$38,800,000, a reduction from the FY 11 level of \$44,000,000 (Legislative Finance Committee, 2011). Each county has at least one FIT service provider agency.
- In FY 11, approximately 123,000 persons were served through the New Mexico Women, Infant, and Children nutrition program, with a total budget of \$4,663,631 (Legislative Finance Committee, 2011).
- NM DOH's Project Launch, supported with federal SAMSHA funds, has a strategic plan to address unmet needs in children's health. Their vision is that, "Children, their families, and pregnant women have access to continuous preventive, acute, and chronic health care, including physical, nutritional, behavioral, mental, and oral health." The pilot site for Project Launch is the Santa Fe Children's Project. The Department of Health projected that 700 children would be served through Project LAUNCH in FY 11 (Legislative Finance Committee, 2011).

How does this goal fit with potential Land Grant Permanent Fund uses?

- Insurance for children should continue to be provided through private sources, Medicaid, and CHIP.
- Pediatric health care, dental care, nutrition services such as WIC, and other health-focused interventions should continue to be supported through Medicaid, state general funds, and other public and private resources.
- Developmental screening and medical home development should continue to be supported through Medicaid and private insurers.
- Funding of screening and intervention programs for developmentally disabled children should continue to be supported through federal and state funds.
- **Home visiting: LGPF should be used to enhance and expand home visiting programs, as they have demonstrated many positive results which contribute to school readiness.**
- Child Protection Services and Foster Care supervision should continue to be supported through the state Children Youth and Family Department.

3. SUPPORTED AND SUPPORTIVE FAMILIES

What is included in this goal area? Why is this area important to success at third grade?

- **Support to parents to strengthen parenting capacity and literacy skills:** Child-caregiver relationships are the most important component of supportive social and cognitive environments (National Council of La Raza, 2011). A disturbed relationship between the primary caregiver and the child is one of the most significant risk factors for later poor outcomes.

Cognitive stimulation within the home is particularly important for children's cognitive development (Center on the Developing Child at Harvard University, 2007). Vocabulary development by age three has been found to predict reading achievement by third grade (Feister, 2010). Pre-schoolers whose parents who actively engage their children in reading activities (telling stories, singing songs, etc) tend to develop larger vocabularies, become better readers, and perform better in school (Child Trends, 2000).

Particularly important is attention to the needs of Hispanic families. A national study found that English Language Learner parents face multiple challenges, as staff may not be bilingual and materials may not be in Spanish (National Council of La Raza, 2011).

- **High quality care for parents with substance abuse, mental health, or domestic violence problems:** Maternal depression and other mental health problems, substance abuse, and domestic violence have a serious negative impact on a mother's ability to nurture young children. Maternal depression, anxiety disorders, and other forms of chronic depression affect approximately 10% of mothers with young children (Zero to Three, 2009). Children whose mothers are depressed or involved with substance abuse or domestic violence have lower levels of academic achievement, more behavior problems, and are most vulnerable to developmental delays and lack of school readiness (Schorr and Marchand, 2007).

Early attachment disorders (including those resulting from early traumatic separations from parents and placement in foster care) can predict subsequent aggressive behavior (Zero to Three, 2009).

- **Fewer children in poverty:** Early childhood is the time at which children are most vulnerable to economic deprivation, which may create family stress, reduce opportunities for high quality caregiver interactions, and limit nutrition (Center on the Developing Child at Harvard University, 2007).



Children who experience poverty before age 5 have lower cognitive scores, worse nutrition, more physical health problems, and a greater likelihood of emotional and behavioral problems. Children who are poor early in life are likely to remain low income over time. Low income parents are at a greater risk of mental health problems that can affect the emotional development of their children. Depression, attachment difficulties, and post-traumatic stress are prevalent among mothers living in poverty (Schorr & Marchand, 2007).

Nearly 17% of US households with children under 6 are food insecure. Infants and toddlers with noncitizen parents are twice more likely to experience food insecurity than are those with naturalized citizen parents (Zero to Three, 2009).

- **Neighborhoods safe, stable and supportive:** Greater neighborhood safety, stability, and supportiveness can reduce exposure to the violence that puts children at higher risk for problems and reduce the stresses that interfere with good parenting. Exposure to high levels of violence and other forms of trauma in a neighborhood is associated with higher levels of depression and problem behaviors and worse school attendance and outcomes (Dyregrov & Yule, 2006). Networks of friends are associated with reduced crime and social disorder (Schorr & Marchand, 2007).

In addition, reductions in the levels of well-documented neurotoxins in the environment lower the

risk of preventable damage to the brains of fetuses and young children (Center on the Developing Child at Harvard University, 2007).

The term “toxic stress” describes the dangerous stress response resulting from strong, frequent, or prolonged activation of the body’s stress response systems without the buffering protection of a supportive, adult relationship. Growing evidence documents the significant negative impact of toxic stress on young children, yielding difficulties in learning and memory, as well as health-damaging behaviors and greater susceptibility to physical illnesses and mental health problems in the future (American Academy of Pediatrics, 2011). Family supports are critically important to mitigate the development of stresses and to increase the likelihood that parents can provide the necessary support to children when stresses occur.

What are some effective interventions to address?

- **Parent/family support:**
 - High quality family support programs that work with parent and child, are relationship-based, and are of sufficient duration and intensity, have been found to promote school readiness. Conventional parenting education and family support programs that simply provide information and advice have limited impact on the development of young children who are experiencing stress (Shonkoff, 2011).
 - High quality family engagement and outreach strategies in conjunction with child care and early education programs which include the following evidence-based components have been successful: encouragement of family participation in decision-making about education; facilitation of consistent, two way communication through multiple forums in language preferred by family; collaboration with families; creation and continuance of learning activities at home and in the community; support for families in creating a positive home environment; training and support for program leadership and teachers to engage families (National Council of La Raza, 2011). One effective approach is a “two generation” program (such as the Perry Preschool program), combining high quality, center-based care and education for the children with direct services for parents (Center on the Developing Child at Harvard University, 2007).
 - Parents reading to their children and making children an active part of shared book reading supports cognitive development (Child Trends, 2000).
 - Good parenting practices (e.g., sensitive response to child, non-coercive discipline) lead to better socioemotional child outcomes (Child Trends, 2000).

- **Behavioral health support:**
 - Professional development for early childhood professionals and mental health professionals on early social and emotional development and mental health issues provides essential manpower to address these issues, as the current level of training is not adequate to address the needs.
 - Mental health consultation to child care settings, nutrition services, home visiting programs, and foster care homes has proven to be an effective approach to developing staff competencies and assisting with needed referrals for treatment. Preschool expulsions have been shown to decrease substantially when there is access to mental health consultants with onsite or regular visits (National Scientific Council on the Developing Child, 2008). Increased training in infant and early childhood mental health has been shown to positively influence the service decisions made by staff in community agencies (Zero to Three, 2009).
 - Mental health services provided to low income families of young children experiencing maternal depression, anxiety disorders, substance abuse, and family violence have demonstrated gains in appropriate discipline techniques and positive reinforcement as well as improvement in parents' abilities to cope (Zero to Three, 2009).
 - Residential family-based treatment programs for substance abuse have been effective in reducing return to alcohol or drugs.
- **Economic supports:**
 - Child care assistance lead to more use of formal child care arrangements, which can provide the higher quality environment especially important for low income children (Child Trends, 2000).
 - Job training and education for parents improves children's cognitive outcomes (Child Trends, 2000).
 - Welfare to work programs that include earnings supplements have the greatest positive effects on young children and tend to led to higher school achievement (Schorr and Marchand, 2007).
 - Generous leave periods (including paid parental leave) from work for new parents are correlated with higher rates and longer periods of breastfeeding and less maternal stress (Zero to Three, 2009).
 - Food Stamps/SNAP program children are 26% less likely to be food insecure than children

who do not participate. Infants whose parents do not participate in WIC are more likely to be underweight and have fair or poor health (Zero to Three, 2009).

What is New Mexico doing now?

- The New Mexico Early Learning Council recognized the need to develop family support as a core element and insure that a continuum of services is provided. The Race to the Top proposal notes the importance of parental engagement in early childhood settings.
- An estimated 45.5% of New Mexico children ages 0-5 were read to by an adult daily in 2007, a rate slightly below the national average. However, those rates were significantly lower for single parent, Hispanic, and low income households (New Mexico Children's Cabinet, 2011).
- New Mexico served 1105 children in home visiting programs in 2011, funded through state and private resources (Public Education Department, Children Youth and Families Department, and Department of Health, 2011). Several models of home visiting exist throughout the state.
- Among New Mexico children ages 2-17 needing mental health treatment/counseling in 2007, only 53.5% received mental health care, ranking NM 43rd among the states.
- In 2004-7, New Mexico's rate of maternal depression was approximately 20%, the highest in the nation. Rates were higher than average for mothers who were on Medicaid, poor, single parents, Native American, victims of physical abuse, and/or substance abusers (Centers for Disease Control and Prevention, 2008).
- New Mexico has an Infant Mental Health Program, with endorsements of providers through a state-wide association. CYFD is working with the association to address the need for more attention to infant mental health needs and reimbursement across the state.
- New Mexico provides child care assistance to approximately 22,000 children as of February 2011 at an annual cost of approximately \$4,500 each (Annie E. Casey Foundation, 2011). There are 6900 children on the waiting list, as funding is not adequate to provide assistance to families with income over 100% of the Federal Poverty Level.

How does this goal fit with potential Land Grant Permanent Fund uses?

- **Home visiting programs: LGPF funds should be used to enhance current programs to insure they include all evidence based factors. LGPF funds should also be used to support expansion of the number of slots in high quality programs, particularly for those children most at risk.**
- **Family engagement/education: LGPF funds should be used to develop and implement effective approaches to family engagement and education. For parents utilizing home visiting, child care, or pre Kindergarten programs, these resources should be developed in coordination with (or through) those pro-**

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grams. For parents who do not participate in those programs, additional approaches should be available through community-based settings, to maximize the reach of these important resources to all parents.

- **Child care assistance:** LGPF funds should be used to expand the number of low income families able to utilize licensed child care settings.
- Mental health (including maternal depression), substance abuse, and domestic violence treatment should be adequately resourced through Medicaid, other state funds, and private insurance.
- Economic development initiatives are managed through the Economic Development department and other public and private initiatives.
- Neighborhood safety is supported through state and local law enforcement and other community development initiatives.

4. HIGH QUALITY CHILD CARE AND EARLY EDUCATION

What is included in this goal area? Why is this area important to success at third grade?

- **High quality child care and early education, widely available and supportive of social and cognitive development:**

Participation in high quality preschool may close as much as half the gap among socio-economic and ethnic groups in children's developmental proficiencies. High quality early education interventions targeting children with multiple risks resulted in IQ test score gains by age 5, and those who began participation in infancy sustained these gains through adolescence. For young children from low-income families, participation in very high-quality, center-based, early education programs has enhanced child cognitive and social development. Children who had closer teacher-child relationships in child care had better classroom social skills, thinking ability, and math skills from preschool to elementary school. For young children from families experiencing significant adversity, two-generation programs that simultaneously provide direct support for parents and high-quality, center-based care and education for the children have had positive impacts on both (Center on the Developing Child at Harvard University (2007).



Evidence shows that early bilingual exposure (e.g., Spanish and English) does not negatively impact the linguistic, cognitive, or literacy development of young children (National Council of La Raza, 2011).

A combination of pre-kindergarten and full day kindergarten is the best combination to make academic gains and ones that will be retained in the early grades, in contrast to students who attend only half-day kindergarten. A combination of pre-kindergarten and half-day kindergarten is better than kindergarten alone in achieving good results. The beneficial impact of pre-kindergarten and half day kindergarten (in contrast to only full day kindergarten) is the greatest for Hispanic children, black children, English Language Learners, and children from lower income families (Hull, 2011). Social and emotional development skills needed to function in a structured classroom environment

must be addressed as well as cognitive skills. Low income children who are rated relatively high on social skills in kindergarten and first grade tend to have better literacy skills than children with low social skills ratings, a trend that continues into third grade (Feister, 2010).

- **Child care linked to health, mental health, substance abuse, and developmental services:**

For young children experiencing toxic stress from recurrent child abuse or neglect, severe maternal depression, parental substance abuse, or family violence, interventions that provide appropriate intensive services can prevent the disruption of brain architecture and promote better developmental outcomes (Feister, 2010).

What are some effective interventions to address?

- Early child care and education programs with these attributes have been shown to be effective in improving early childhood outcomes: Qualified and appropriately compensated personnel; small group sizes and high adult-child ratios; language-rich environment; developmentally appropriate curriculum; safe physical setting; warm and responsive adult-child interactions (Center on the Developing Child at Harvard University, 2007). Outcomes include greater communication, cognitive and behavioral skills, and higher math and language scores. Children in these programs also experience lower levels of grade retention and placement in special education classrooms (Zero to Three, 2009).

In addition, early child care programs that are “two generational,” providing intensive and continuous family engagement and education have demonstrated even greater positive impacts. The Perry Pre School Experience included a major parent component, including weekly home visits. Early Head Start includes home visits, center based care, or a combination of the two. Results showed children had significantly larger vocabularies and scored higher on standardized measures of cognitive development. Children and parents had more positive interactions, and these parents provided more support for learning. Preschool interventions with home visits produced higher achievement scores for participating children through junior high school. Children of low income families who participated in a comprehensive initiative (Start Smart, North Carolina) that provided healthcare, child care, and family support and education were significantly better prepared for school than non participating children. The quality of child care was also improved in the participating centers (Schorr & Marchand, 2007).

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- Provision of mental health and substance abuse services to children and families in need have demonstrated positive impacts on children’s developmental outcomes. (See “Supported and Supportive Families” goal area.)
- Early screening, identification, and referral services have been demonstrated to reduce special education referrals and enhance school readiness. (See “Health and Development on Track” goal area.)
- Provision of professional development support for all early childhood educators on working with diverse populations enhance the environment in which bilingual children participate in child care and early child education programs. Some use of Spanish in a preschool setting for English Language Learners has positively impacted children’s social skill development (National Council of La Raza, 2011).
- Provision of expert early childhood consultation on health and mental health issues to providers in early childhood settings has been effective in developing skills of providers to provide and refer for services if needed. (See “Supported and Supportive Families” goal area.)
- Efforts to expand access and information services for Latino parents can address the lack of information for these parents, as data indicate that the large majority of Latino parents value preschool for their four year olds, but do not have information about preschool services (National Council of La Raza, 2011).

What is New Mexico doing now?

- In FY 12, CYFD’s budget included \$82 million of federal and state funds for child care assistance. This amount represented a reduction of 12% from FY11 and a 17% reduction from FY10 (Legislative Finance Committee Post Session Review, 2010). Subsidized provider rates for low income families are substantially below the federally recommended 75% level, which has a negative impact on the accessibility of child care, particularly for infants and toddlers (Legislative Finance Committee, 2011).
- As of August 2011, 26.5% of New Mexico subsidized children in child care spend their day in a high quality (4 or 5 STAR) level child care center (NM Public Education Department, Children Youth and Families Department, and Department of Health, 2011).
- In 2005-9, 15% of New Mexico 4 year olds in New Mexico were enrolled in pre-Kindergarten; 22% were enrolled in Headstart, and 9% were enrolled in special education programs. 4435 children were in state funded prekindergarten and 10,383 in Early Head Start or Head Start

in 2010 (New Mexico Public Education Department, Children Youth and Families Department, and Department of Health, 2011). Thus, 54% of New Mexico's four year olds were not served by Pre K, Headstart, or Special education programs.

- FY 2012 New Mexico general fund budgets for Pre-Kindergarten were \$7,973,400 in CYFD and \$6,292,600 in PED. The external evaluation found that, "New Mexico Pre K produces consistent benefits for children who participated in Pre K, compared to those who did not, across all three years of the study. Positive impacts were found in each of three content areas important to early academic success- language, literacy, and math. Findings in literacy and mathematics were statistically significant in analyses for each school year of New Mexico" (Hustedt, 2010).
- The federal Head Start program (for children ages 3-5) and Early Head Start program (for pregnant women, infants, and toddlers) in low income families are delivered through 130 Head Start/Early Head Start Centers across New Mexico, serving approximately 8,000 children annually at a cost of \$7,500 a child (Legislative Finance Committee, 2011).
- Early childhood special education services are provided statewide for eligible three and four year olds and some two year olds. In FY 2012, the Public Education Department's budget for Early Childhood Special Education was \$44,231,700.
- Only 4% of early childhood educators were able utilize TEACH scholarships to support their professional development, due to limited funding. The ratio of TEACH scholars was 14 per 1000 children ages 1-4 years old in 2010 (Legislative Finance Committee, 2011).
- The Training and Technical Assistance Program (TTAP), funded by Children Youth and Families Department, provides consultation and training to early childhood educators. Staff estimates that TTAPs serve approximately 10% of the early childhood educators in the state.

How does this goal fit with potential Land Grant Permanent Fund uses?

- **Child care assistance:** LGPF funds should be used to expand the number of low income families able to utilize licensed child care settings. In addition, LGPF funds should incentivize the providers and families to improve the quality of the child care programs, by providing higher subsidy levels for those providers who achieve higher levels of accreditation/quality.
- **Pre K programs:** LGPF funds should be used to expand the number of slots and to fund at a higher level per student. The higher level of funding would allow pre K programs to build in evidence-based elements for greater systematic parent engagement/education strategies, higher staffing ratios, and other resources needed to produce excellent results.
- **Professional development:** LGPF funds should be used to expand the number of child care workers who

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have access to TEACH scholarships, onsite professional development, and other resources to insure the development and retention of well prepared staff in early childhood settings.

- **Early childhood consultation programs:** LGPF funds should be used to expand and coordinate the expert consultation resources available to all early child care settings. This consultation would assist staff in addressing socioemotional, health, and cognitive needs in the care setting, and would also assist with information and referral for services as needed.



5. CONTINUITY IN EARLY CHILDHOOD EXPERIENCES

What is included in this goal area? Why is this area important to success at third grade?

- **Curricula and expectations aligned among providers of early education and schooling:** Pre-kindergarten experiences are important for the development of basic skills, but these gains may not be sustained if they are not integrated with experiences in grades K-3. Continuity across early childhood curricula is related to positive outcomes for children.
- **Providers of early education, schooling, and social and health services connected with each other and with families:** A systematic approach emphasizing long-term relationships among the child, family, schools, teachers, peers, and wider community enhance program quality and relationships, yielding positive academic and social adjustments to school.

What are some effective interventions to address?

- Professional development activities and an early learning curriculum designed to be consistent with K-3 early learning standards have been effective in achieving this alignment.
- Proactive contact between preschools and kindergartens to discuss individual students has been demonstrated to be valuable in developing appropriate plans.
- Proactive contact between schools and homes both before and after entry into school have been shown to be valuable in keeping parents actively engaged in their children's education.

What is New Mexico doing now?

- SPARK, Supporting Partnerships to Assure Ready Kids, prepares 3-6 year old children and their families for the transition between Head Start programs and kindergarten. The program, funded by the Kellogg Foundation and operated by the New Mexico Community Foundation, is focused through 2012 on work in Native American communities in New Mexico.
- New Mexico's Race to the Top proposal's objectives included establishing a statewide kindergarten readiness assessment process. Without that funding, it is not clear if the state will be able to proceed with that work.

How does this goal fit with potential Land Grant Permanent Fund uses?

- **Resources for coordination between early childhood education programs and kindergartens: LGPF funds should be used to increase the level of funding/student in pre K programs to insure that staff has the time to work with kindergartens and parents on the effective transition of all students into the kindergarten setting.**
- **Parent engagement strategies: LGPF funds should be used to support the engagement of all parents during the entry to kindergarten, as the foundation for parental engagement throughout the child's education.**
- Funding of kindergarten programs to liaison with preschools should be funded through other resources, including ongoing PED funding.

6. EFFECTIVE TEACHING AND LEARNING IN K-3 CLASSROOMS

What is included in this goal area? Why is this area important to success at third grade?

- **Conditions in place to produce and maintain excellent teaching and learning:** In order to sustain gains made through early childhood interventions, effective teaching and learning in grades K-3 must occur. Teacher quality has a greater effect on student learning than parents' level of education, family poverty, race, or other attributes. Investing in teachers can make a difference in student achievement (Schorr & Marchand, 2007).
- **Trusting relationships within schools and between communities and schools:** Schools with a high degree of "relational trust" among teachers, children, and families are far more likely to make the kinds of changes that help raise student achievement. Family involvement in children's education at home and in school has a significant impact on student performance and attendance (Schorr & Marchand, 2007).

What is New Mexico doing now?

- The Governor and the Department of Education have developed a proposal for \$17 million of additional state funding in FY 2012-2013 to support reading development from pre-K through third grade.
- The Legislative Finance Committee's proposed 2012-2013 budget includes funding to serve more students in the kindergarten-three-plus extended school year and \$7.5 million for an early reading initiative.

How does this goal fit with potential Land Grant Permanent Fund uses?

- These interventions would be addressed through K-12 funding from state general fund and LGPF. The new designation for funds for early childhood would not be used for this goal area.

D. SUMMARIES



1. EVIDENCE-BASED GOAL AREAS AND APPROACHES FOR LGPF EARLY CHILDHOOD FUNDING

CHILDREN READY FOR SCHOOL AND SUCCEEDING AT THIRD GRADE		GOAL AREAS					
		Heathly, Well-timed Births	Health and Development on Track	Supported and Supportive Families	High Quality Child Care and Early Education	Continuity in Early Childhood Experiences	Effective Teaching and Learning in K-3 Classrooms
APPROACHES APPROPRIATE FOR LGPF FUNDING							
PROGRAM INVESTMENTS							
Home visiting programs							
Pre-kindergarten education programs							
Child care assistance							
Family supports, including parent engagement and education initiatives							
Early childhood consultation program							
SYSTEM BUILDING/ INFRASTRUCTURE INVESTMENTS							
Child care assistance: Rate differential for high quality programs							
Professional development for early childhood educators							
Improved quality rating system							
Kindergarten readiness assessment							
Data system, including development of single identifier							
Evaluation							

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2. EVIDENCE-BASED GOAL AREAS AND APPROACHES FOR OTHER FUNDING SOURCES

APPROACHES APPROPRIATE FOR OTHER FUNDING SOURCES	GOAL AREAS					
	Heathy, Well-timed Births	Health and Development on Track	Supported and Supportive Families	High Quality Child Care and Early Education	Continuity in Early Childhood Experiences	Effective Teaching and Learning in K-3 Classrooms
Prenatal Care						
Women, infants and children nutrition program						
Teen programs for constructive activities						
Health promotion education						
Developmental screening						
Families, Infants and Toddlers Program (FIT)						
Early Childhood Special Education services						
Medical homes						
Mental health treatment services for children, parents and families						
Dental care						
Early special education services						
Head Start and Early Head Start programs						
Child abuse and neglect services						
Foster care services						
Job training for parents						
Maternal leave policies						
K-3 education services						

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3. FINANCIAL ESTIMATE OF TOTAL NEED AND EXAMPLE ALLOCATION OF LGPF RESOURCES (ALL DOLLAR AMOUNTS IN MILLIONS)

PROGRAM INVESTMENTS	EST. TOTAL ANNUAL NEED	CURRENT STATE FUNDING	OTHER FUNDING	UNMET NEED	2012 LEGISLATIVE FINANCE COUNCIL RECOMMENDED BUDGET	GOVERNOR'S RECOMMENDED BUDGET	EXAMPLE ALLOCATION OF \$150 MIL ANNUAL LGPF BUDGET
1. Home visiting programs	\$84.8	\$2.3	\$5 (private funds)	\$77.5	\$0.9		\$38
2. Pre-kindergarten education programs	\$121	\$15.3	\$0	\$105.7	% of \$10 PED additional allocation \$1 – CYFD	\$2.3	\$59.4
3. Child care assistance	\$128.6	\$27.5	\$55 (Federal)	\$46.1	\$3		\$22.5
4. Family supports, including parent engagement and education initiatives	\$5	\$0		\$5			\$5
5. Early childhood consultation program	\$9	\$1.3	\$2.2	\$5.5			\$4.5
6. Families Infants and Toddlers program		\$15	\$22.7 (Federal)				
7. Early childhood special education program		\$41	\$3				
8. Headstart and Early Headstart			(Federal funds)				

D. SUMMARIES



3. FINANCIAL ESTIMATE OF TOTAL NEED AND EXAMPLE ALLOCATION OF LGPF RESOURCES (ALL DOLLAR AMOUNTS IN MILLIONS)

	EST. TOTAL ANNUAL NEED	CURRENT STATE FUNDING	OTHER FUNDING	UNMET NEED	2012 LEGISLATIVE FINANCE COUNCIL RECOMMENDED BUDGET	GOVERNOR'S RECOMMENDED BUDGET	EXAMPLE ALLOCATION OF \$150 MIL ANNUAL LGPF BUDGET
SYSTEM BUILDING/ QUALITY INVESTMENTS							
1. Reimbursement rate differential for quality child care	\$12.9			\$12.9			\$6.3
2. Professional development	\$19.7	\$0.2		\$19.5			\$9.6
3. Improved quality rating system*							
4. Kindergarten readiness assessment development**							
5. Data system*							
TOTAL INVESTMENTS	\$388.5	\$102.6	\$87.9	\$272.4	\$7	\$2.3	\$150**

*Race to the Top Early Learning federal proposal developed by PED, CYFD, and DOH requested \$50,000,000 federal funds, to be matched with state funds, for a total investment of \$74,000,000 to fund these system-building over four years. In the initial years of LGPF funding, some resources could be allocated to these important investments while the program expansions and enhancements are ramping up.

**May not add up due to rounding



SUMMARY OF COST ASSUMPTIONS FOR TOTAL UNMET NEED*

Overall assumptions:

- Will take 4-5 years to fully implement all LGPF programs and initiatives.
- All current state and private funding will stay in place.
- System improvements proposed in Race to the Top proposal could be funded in startup years of LGPF, before programs are fully implemented.
- Full implementation sample LGPF budget of \$150,000,000 is calculated based on percentage of total need that each program represents.

Home visiting:

- \$4,000/year for full service year, \$2,000 for partial service year
- Available to all first born and a small portion of subsequent children
- Rate of Medicaid eligible-births (66%) is used for uptake at varying duration and intensities of service.

NM Pre Kindergarten:

- \$7,650/child/year, approximate rate/child for Head Start and state share of K-12 funding
- Funding level/child above current rate to be used to incorporate more evidence-based practices: increased staff: child ratios, parental engagement, transition to kindergarten, developmental learn-

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ing materials, other quality improvements

- Uptake rate of 70% of 4 year olds who are not in Head Start or special education

Child care subsidy:

- Average cost/child/month: \$323
- Uptake rate of 50% of children ages 0-5 who have working parents below 200% of poverty, starting with waitlist

Family supports:

- Estimated program cost, for child care families and families not participating in child care or home visiting

Early childhood consultation program

- Expanded and coordinated consultation for child care and Pre-K programs
- 60% of early childhood workforce to receive services, at current cost/worker for TTAP program

Reimbursement rate differential for quality child care programs

- Increased subsidy rate to 75% for high quality child care measured by applicable QRIS system
- Uptake rate: increase from 27% to 50% of subsidized children in high quality child care

Professional development programs:

- TEACH scholarships to serve 33% of current early childhood workers at current cost/worker
- Retention pay incentives for 10% of early educators who obtain AA or BA
- Two days/year of professional development for child care and Pre K workers

Evaluation:

- 5% of total investment
- Will track child progress and outcomes through ten years of implementation, to measure results including cost/benefit and to ensure accountability and continuous improvement.

**Additional detail on the financial modeling assumptions is available from New Mexico Voices for Children.*

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