

# **Family and Community Survey on Early Childhood:**



 **FIRST THINGS FIRST**

*A Baseline Report on  
Families and Coordination*



## I. Executive Summary

---

**T**he First things First (FTF) Family and Community Survey is a baseline report on the current state of parents' knowledge about children's early development and parents' perceptions of the resources currently available for young children and their families in Arizona. The results help identify parents' current knowledge about early development as well as the areas in which families need additional support to access needed services for their child/children.

### Background

---

- In Arizona, the number of children under 5 years old has grown dramatically – a 31% increase since 2000
- Many families with children are financially challenged, 16% of families with children under 18 are below the federal poverty level
- Children who have grown up in poverty often begin kindergarten with more risk factors than other children
- Research shows that parent understanding of child development differs by socio-economic status and education, therefore, Arizona's family and community survey data were analyzed for two educational/economic groups (Low and Med/High)

### Knowledge

---

Overall, Arizona's parents understand that early childhood development is important, with over 75% of parents acknowledging that they can significantly impact children's brain development at or before birth. While Arizona's parents understand the importance of early brain development, not all are sure what they can do to best support their child's optimal development, survey results show:

- 20% of Arizona parents indicate that a child's first year does not impact later school performance
- 22% believe that children's capacity to learn may be set at birth
- 48% believe that children do not respond to their environment until two months of age or later
- 27% believe that children sense and react to parent emotions only after they reach seven months of age or older
- 21% of parents said that play is not crucial for children under 10 months of age
- 47% of parents believe that a child's language benefits equally from watching TV versus talking to a real person.
- 23% believe that a 12 month old might push TV buttons on and off because they are angry with the parent
- 40% hold the expectation that a 15 month old should be expected to share

- 26% believe that three year olds should be able to sit quietly for extended periods of time
- 62% indicated that a six month old can be spoiled

In comparison with national findings, the responses of Arizona's parents are more in line with current research findings, Arizona's parents are above national norms. However, results also indicate that parents can benefit from clear, research based information to help them support their child.

Additionally, results indicate that parents with lower incomes and educational attainment can benefit even more from additional information. Findings from analyses indicate that there are statistically significant differences in responses by parental education/income status.

Arizona parents with lower income and education are more likely than parents with higher income and education to:

- Indicate that capacity for learning may be set at birth (33% as compared to 18%)
- Misunderstand the importance of play, especially for very young children (69% indicating play is crucial as compared to 83%)
- Indicate that play may not impact a child's intellectual development (87% agreeing there is an impact as compared to 95%)
- Interpret turning a TV on and off as anger or misbehavior (33% indicate the behavior is to "get back at parent" as compared to 20%)
- Agree that picking up a crying child will spoil the child (50% as compared to 34%)

### **Recommendations for supporting parent knowledge**

---

Results from this survey make it clear that Arizona parents are concerned with their child's growth and development. Parents can benefit from more, better, and readily accessible information about child development including:

- Clear and specific information on the importance of frequent and attentive interaction with their child with specific examples and guides
- Tips and resources on how to use TV and other educational items to enrich their interaction with their child not substitute for it
- Research based knowledge about what to expect from their child at each age to help parents guide their child and set appropriate rules and boundaries
- Targeted outreach for parents of lower income and education related to current research in brain development, enrichment resources, and developmental milestones

These steps will support optimal parenting based on accurate understanding of age-appropriate emotional, social, cognitive, and language development, this will best prepare all children for success in school and later in the workplace and community.

## Services

---

Parents were asked about services in Arizona for young children and their families. Overall, responses indicated:

- 57% of parents are dissatisfied with the coordination of early childhood services in Arizona
- 40% of parents are not sure if they are eligible for services
- 20% indicated that services are not available at convenient locations or times
- 38% of parents indicated that available services do not meet the needs of their family
- 32% indicated that Arizona's services are not identifying problems early and intervening adequately

When compared to the responses of early childhood service providers and partners, Arizona's parents are more likely to indicate that services are good; however, there is a subgroup of parents who indicate services are not meeting their needs. For some items, there are substantial differences in responses based on the income and education of parents. For example parents with lower income and less education are:

- More likely to report that early childhood services are not family focused (56% as compared to 30% of parents with higher incomes and education)
- More likely to report difficulties in obtaining appropriate prevention and early intervention services (41% as compared to 27% of parents with higher incomes and education)

Further analyses (in preparation for the upcoming supplemental Family and Community Report) indicate that families with children in poor health are much more likely to report that services are inadequate and inconvenient. Overall, parents whose children are developing normally and who have family and community resources to assist in their child's development are satisfied with the available services. For those parents who find themselves in need of more intensive services either because of the health of their child or their economic circumstances, services is not coordinated or adequate.

This provides insight into specific aspects of service coordination and provision that can be improved to ensure that Arizona's youngest residents and their families are readily obtaining the assistance and services they need to optimize their child's health, development, and future educational success.

## Recommendations for service system coordination

---

Knowledge gained from this survey provides insight into which early childhood issues are important to Arizona's parents, what parents know and do not know about the development of young children, and what the areas are in which families need additional support in receiving services for their children. Areas for immediate action include:

- Clear and specific information for parents as to what services are available, what to expect from those services, and if they are eligible

- Targeted outreach for parents with children in poor health or children who have developmental delays related to available services and eligibility
- Targeted outreach for parents of lower income and education related to available services and eligibility

### **Areas for strategic action with early childhood service providers**

---

- Provide Family and Community Survey findings to early childhood service providers and state agency programs
  - Priority for agencies serving parents of children with developmental delays
- Identify shared objectives and approaches for improving information to parents
- Coordinate and plan with agencies action for increasing coordination across agencies including
  - Streamlining of applications
  - Clarity of communication with parents
  - Pathway for service delivery to parents
  - Confirming service provision data collection

Providing information to parents on availability and eligibility will depend entirely on communication and collaboration amongst early childhood partners and agencies providing services for children under five and their families. Going the next step, from providing information to improving the accessibility and quality of services, will involve long term changes in the scope, structure and coordination of early childhood services across the state. Such work has begun with the creation of Regional Partnership Councils across the state of Arizona. FTF will work with early childhood partners across the state of Arizona to focus coordination, communication, and family support efforts to most effectively meet the needs of Arizona's families and children.

## **II. Background**

---

**F**irst Things First (FTF) seeks to improve the developmental and health outcomes of Arizona's children ages birth through 5 years. Ensuring that all children birth through 5 years are afforded opportunities to achieve their maximum potential to succeed in school and life involves work in many areas. One of the most important is FTF's mission to support parents to be the first and best teacher of their child.

The FTF Family and Community Survey provides a baseline assessment on parents' perceptions of the resources currently available for young children and their families in Arizona and the parents' knowledge about children's early development. Knowledge gained from this survey provides insight into which early childhood issues are important to Arizona's parents, what the areas are in which families need additional support in receiving services for their child/children, and what parents know and do not know about the development of young children.

Fundamental to the work of FTF is the research-based understanding that healthy

early childhood development is a critical first step to educational success. Brain research as well as economic research on the importance of early childhood is so powerful, we know that the flourishing of young children is a public policy issue (Bowman et al., 2001; Cunha et al., 2005; Shonkoff & Phillips, 2000).

In this critical mission, FTF is working with community partners to strengthen and expand the network of programs and services that exist in our state, so that young children and their families in Arizona have ready access to high quality and affordable supports, if they choose to use them. The value of this integrated and coordinated approach is acknowledged in the FTF Strategic Plan, which identifies two goals specific to building a coordinated network of early childhood programs and services.

FTF's **coordination goal** is to **lead cross-system coordination efforts among state, federal and tribal organizations to improve the coordination and integration of Arizona programs, services, and resources for young children and their families.** To accomplish this goal FTF is fostering increased communication, collaboration, coordination across early childhood systems. Improved coordination is inextricably tied to improvement in program access, quality, and comprehensiveness.

Improvements in these aspects of programming are represented in FTF's **family support goal** to **coordinate and integrate with existing education and information systems to expand families' access to high quality, diverse and relevant information and resources to support their child's optimal development.**

### The Family and Community Survey

---

FTF recently completed a survey of parents (or related, non-paid caregivers) of children, age 5 and younger. The survey assessed parents' views of coordination among service providers, as well as the quality and accessibility of family support programs in Arizona. Parents also responded to questions about their understanding of early development and parenting of young children. The survey findings provide baseline information about parents' perceptions of the resources currently available to young children and their families in Arizona; and describe parents' knowledge about children's early development.

Section III of this report describes the demographics of Arizona's families with young children. Section IV summarizes parents' knowledge of early childhood development and compares Arizona findings to national benchmarks. Lastly, Section V describes parental perceptions of service quality and accessibility and compares parent responses to the reports of stakeholders from Arizona agencies and organizations that serve young children and their families.

## III. Who are Arizona's Families with Young Children?

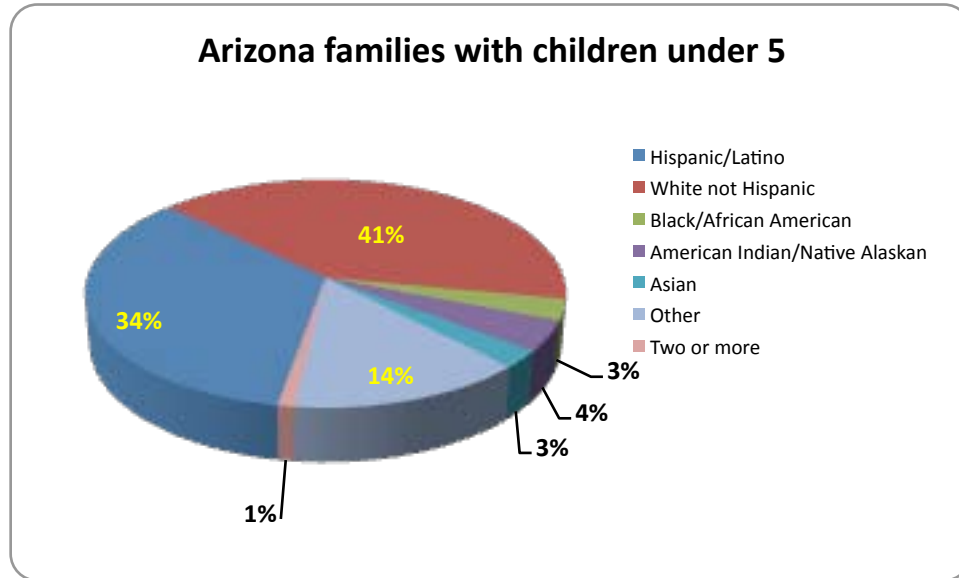
---

The state of Arizona is diverse and growing. According to the U.S. Census, American Community Survey, since 2000 the number of children under 5 years old in Arizona has increased by 31%; and the number of Arizona families with children under

The number of children under 5 years old in Arizona has increased by 31% since 2000

six years old has increased an estimated 19%<sup>1</sup>. About 41% of Arizona families with children under 5 are White, Non-Hispanic, 34% are Hispanic/Latino, 3% are African American, 4% are American Indian, and about 18% report Asian, two-or more races, or other race/ethnicity (Figure 1).

**Figure 1: Race/Ethnicity of Families with Children under 5 Years Old<sup>2</sup>**



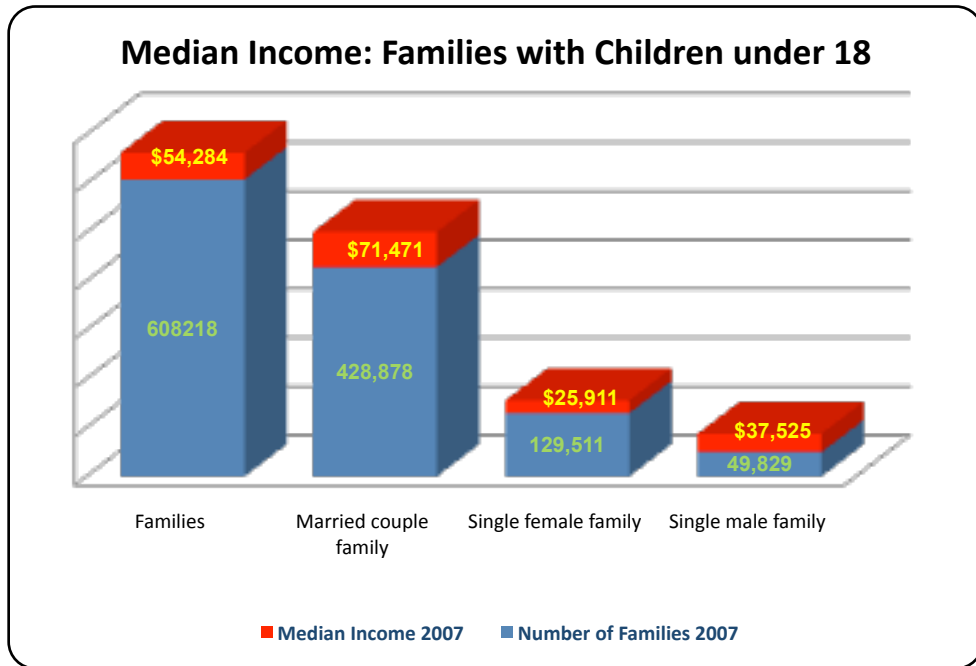
Many Arizona families with young children are financially challenged. The median income in Arizona for families with children under 18 is \$54,284. However, in 2007 the median income of families with children led by single mothers was just \$25,911, and for families headed by single fathers, the median income was \$37,525 (Figure 2).

<sup>1</sup> U.S. Census. American Community Survey, 2000 and 2007

<sup>2</sup> U.S. Census. American Community Survey, 2007



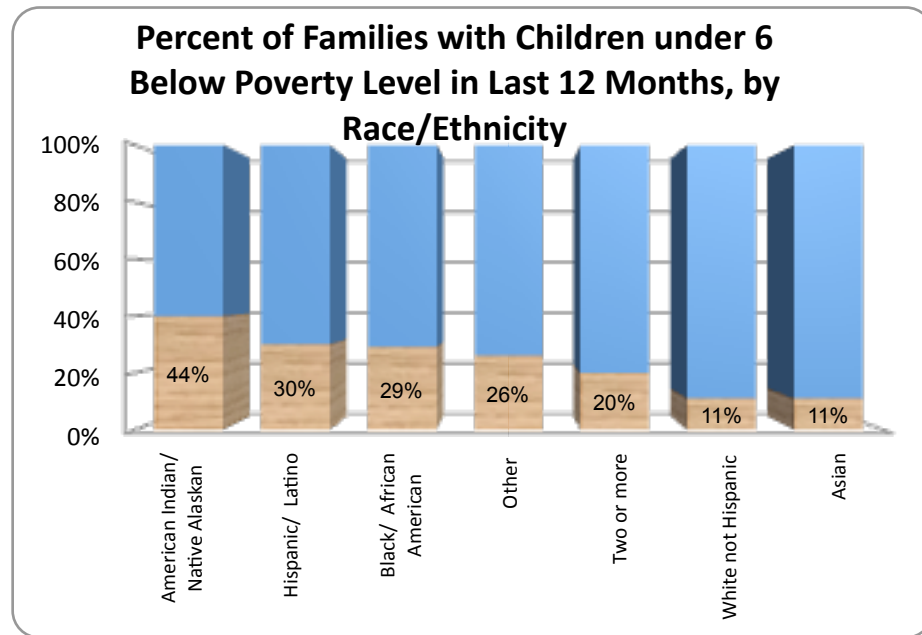
Figure 2: Median Income of Families with Children <sup>3</sup>



Brain and educational research indicates that children who have grown up in poverty often begin kindergarten with more risk factors than other children, and are more likely to face health, developmental, academic, and emotional challenges. These challenges are strongly linked to disparities in language development and other skills necessary for school success (Brooks-Gunn & Duncan, 1997; Hart & Risley, 1995; Shonkoff & Phillips, 2000).

About 16% of Arizona families with children under 18 live at or below the federal poverty level.<sup>3</sup> In Arizona, families with children under six living below the poverty level have a different demographic profile than Arizona families as a whole. Figure 3 illustrates the ethnic/racial breakdown, with over 40% of American Indian families living below the federal poverty line, and about 30% of African American and Hispanic/Latino families living in poverty. This demonstrates that struggling families represent a diverse array of ethnicities, races, and/or tribal affiliations.

<sup>3</sup> U.S. Census. American Community Survey, 2007

**Figure 3: Families with Young Children Living Below the Poverty Level by Ethnicity<sup>4</sup>**

### Who was surveyed?

The FTF Family and Community survey was conducted as a computer assisted telephone interview (CATI) throughout the state of Arizona between August and September, 2008. A stratified random sample of three thousand six hundred and ninety (3690) parents (and un-paid related caregivers) of children 5 and under completed the 15 to 20 minute survey. For additional information about the survey methodology, please refer to Appendix A. See Appendix B for more detailed demographic data on the survey respondents.

### Socio-economic status and parenting

In order to understand how differences in family context are related to parents' knowledge about early development, as well as to satisfaction with services, responses from the survey were analyzed by two socioeconomic strata (SES), lower and higher SES. These analyses used a composite index of SES that includes respondent education and family income (the methodology used to identify these groupings is described in Appendix A).

### Why SES?

Research demonstrates that parents' understanding of child development, beliefs about how children grow and develop, concepts of parenting, and parenting behaviors differ by socioeconomic status (Hoff, Larson, & Tardif, 2002). In general, the following differences in parent beliefs have been found between higher and lower

SES parents: higher SES parents expect their children to attain certain developmental milestones at a younger age than do lower SES parents, lower SES mothers expect their children to be more conforming while higher SES mothers want their children to be more autonomous, and higher SES parents believe they have more control over their children's outcomes than do lower SES parents. Differences in parenting styles by SES have also been observed across cultures, with lower SES parents more likely to use authoritarian parenting tactics, while higher SES parents tend to be more child-centered and authoritative. SES differences also appear in parent behaviors. Mothers and fathers from lower socioeconomic strata have been found to be less verbal and to be more directive and controlling in their parenting interactions (Hoff et al., 2002).

Moreover, SES has been related to disparities in service utilization (especially health services such as immunization) as well as children's academic success (Chen, Martin, & Mathews, 2006; Gregory, & Rimm-Kaufman, 2008; Kim, Kronenfeld, Frimpong, & Rivers, 2007; McIntosh, Taylor, Crosbie, Holm, & Dodd, 2007).

The Family and Community Survey was analyzed by the dichotomous SES variable. These findings will give insight into the needs of families and children and most effectively identify target audiences for the dissemination of information and the improvement of services.

#### IV. Parental Understanding of Early Childhood

---

**P**arents are the first and most important teachers of their children. Every family and each child is different, so there is no perfect approach to parenting. Yet, parents can be supported in this most important job by having valid information about the development of young children-- their abilities and their needs. Many of the items on the FTF Family and Community survey evaluate what Arizona parents understand about early childhood, and where there may be areas for additional information, support, and mobilization. FTF partnered with the national organization Zero to Three<sup>®</sup> to identify items which assess Arizona parents' knowledge about early childhood.<sup>5</sup> The following section compares the responses of Arizona parents of young children to the national Zero to Three<sup>®</sup> findings from 2000 (DYG, Inc., 2000) and discusses SES differences in parental responses to these questions.

##### The Importance of Early Childhood

---

From the last two decades of neuroscience and behavioral research, it is unequivocally clear that early childhood experiences- particularly from birth to five years old, are critical for healthy brain development and later learning (Shonkoff & Philips, 2000; Shore, 1997). The brain must be activated via experiences to develop and parents have a crucial role in providing nurturing and stable relationships for optimal brain development (Perry, 2000; Shonkoff & Phillips, 2000). The architecture of the developing brain is shaped by the interaction of genes and experiences. The 'serve and return' nature of children's relationships with their parents and caregivers is the driving force in these interactions (Shonkoff & Phillips, 2000; *The Science of Early*

<sup>5</sup> All items in the following section were developed and licensed by Zero to Three<sup>®</sup>.

*Childhood Development, 2007*). ‘Serve and return’ involves the parental responses directly relating to child behavior such as the constant back-and-forth interaction of the parent and baby: a baby crying and a parent picking her up or a parent smiling when the baby smiles.

A young infant’s developing brain needs pattern and consistency. Repeated attentive care from parents develops and strengthens specific neural connections that support security and stability in early development (Stamm, 2007). Parents and caregivers who understand the role of earliest experiences in the development of a healthy brain may be more likely to actively interact with their very young child(ren) and provide enriching caregiving environments.

Early childhood provides a unique window of opportunity that allows diverse experiences to shape the architecture of a child’s brain. There are ‘prime times’ or ‘sensitive periods’ in brain development which are optimal for the formation of certain brain circuits (neural connections) that are associated with specific abilities (e.g., sensory skills, language and motor development)--optimal development periods during which the brain is particularly efficient at specific types of learning (Shore, 1997).

Brain development consists of an ongoing process of wiring and re-wiring the connections among neurons. Even though the human brain has the remarkable capacity to change and learn, trying to modify behavior or build new skills on a neural network that was not wired properly when first formed requires more effort and is less efficient (Chugani, 1997; Hensch, 2005; Knudsen, 2004; Knudsen et al., 2006; Martn, Grimwood, & Morris, 2000). Early interactions do not just create a developmental context for learning; they directly affect the way the human brain is “wired”, influencing ongoing learning (Shore, 1997). This is why early learning is the best learning.

### **Early Experiences and Brain Development**

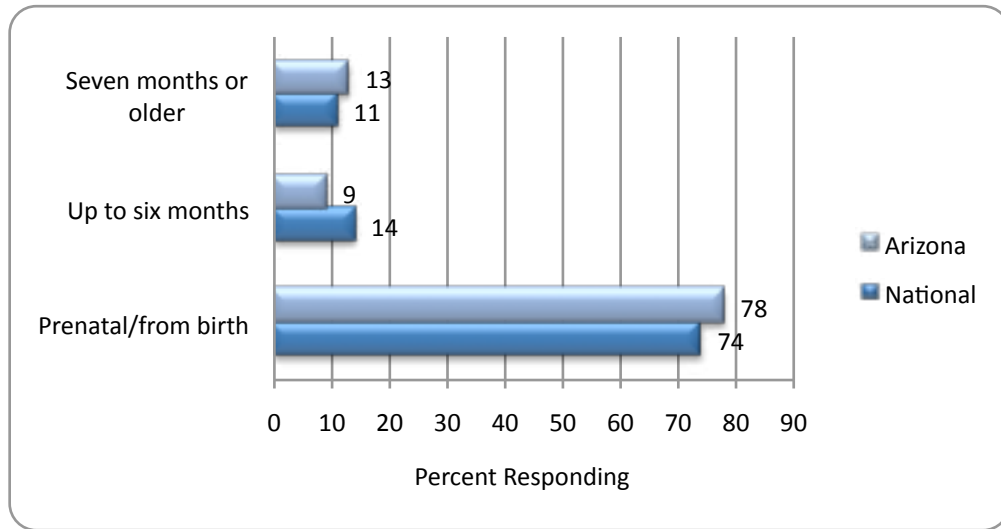
---

#### **Over three-quarters of parents know they can impact early brain development.**

The Family and Community survey included items assessing knowledge of the importance of early childhood experiences, and the timing of developmental milestones and early abilities. The survey results showed that most Arizona parents understand the importance of brain development during the early months of life. More than three-quarters (78%) of Arizona parents acknowledged that parents can significantly impact children’s brain development at or before birth, a proportion similar to the national sample (74%) surveyed in 2000 (Figure 4).

However, despite broad media dissemination of information emphasizing the importance of early interactions on brain development, 13% of the Arizona parents still believe that parents do not start to have a significant impact on brain development until seven months of age or later. This finding indicates that information gaps exist that have very real implications for how adults interact with and raise young children. Providing specific knowledge about the importance of early interactions in healthy brain development is the first step in assisting parents in making choices that will support and optimize their child’s development.

**Figure 4. When can parents impact brain development?**



Babies start taking in information about and responding to the world around them even before they are born. For instance, studies have shown that while in the womb, babies hear and have memories of sounds they have heard. Specifically, it has been shown that babies only a few days old recognize and turn to their mother's voice over other voices (DeCasper & Fifer, 1980; Hofer, 1996). Recognizing that children are active participants in the world from day one

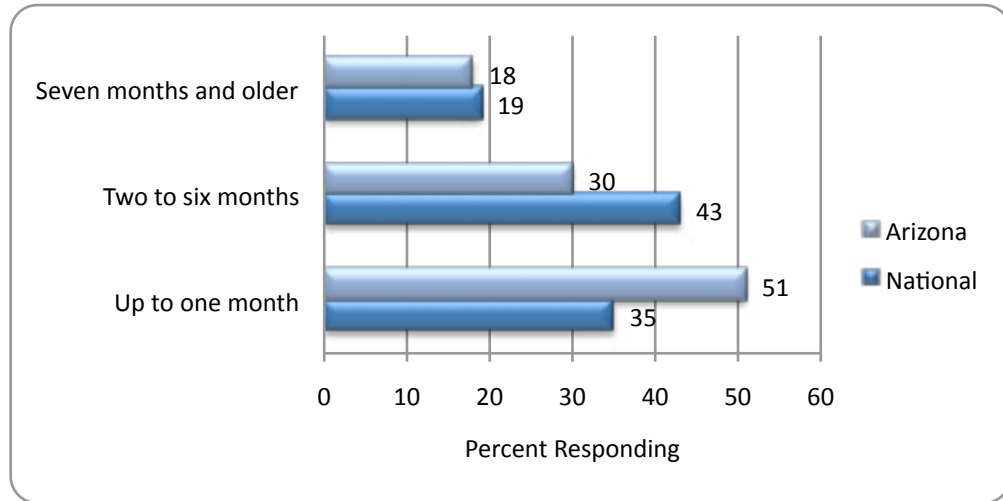
is critical for supporting a child's healthy brain development and learning. Developmental and neuroscience research emphasizes the importance of infants

engaging in discovery through every-day explorations shared by a sensitive, attentive caregiver (National Scientific Council on the Developing Child, 2007; Stamm, 2007).

When asked at what age babies sense and react to their surroundings, about half of Arizona parents acknowledged that this occurs in the first month of life (51%). Although this represents a larger proportion of parents than in the national survey (35%), nearly half of Arizona parents (48%) still believe that children do not respond to their environment until two months of age or later (see Figure 5). This suggests that almost half of Arizona parents do not fully understand the importance of the child's very early interactive experiences with his or her environment for healthy development.

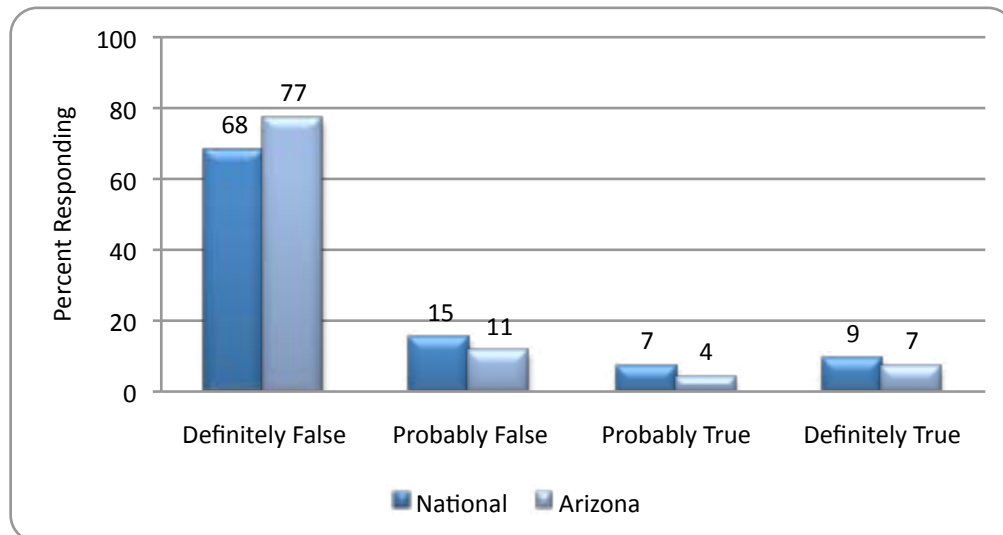
**Babies respond to their world even before they are born.**

**Figure 5: At what age do infants take in and react to surroundings?**



Newborn babies are continuously learning through interactions with adult caregivers and their environment, their neurons constantly firing and wiring (Shonkoff & Phillips, 2000). Parents who believe that an infant’s learning capacity is unchangeable may be at risk of not providing adequate experiences to support the healthy development of their growing child. A large proportion of Arizona parents (77%) understood that children’s capacity to learn is not ‘set at birth,’ compared to less than 70% in the national survey. However, almost one-fourth of parents surveyed (22%) still believe that children’s abilities might be fixed at birth (Figure 6).

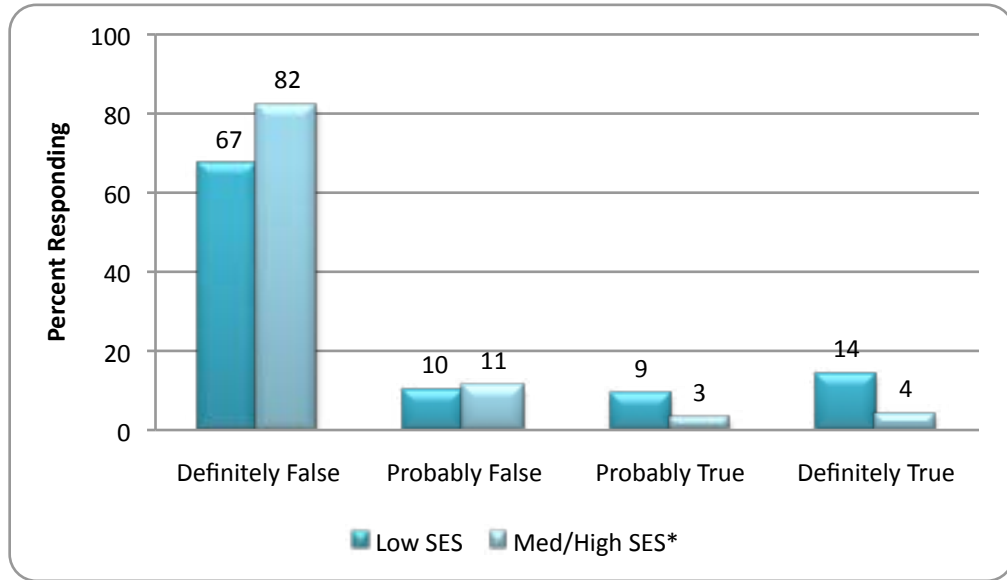
**Figure 6: Capacity for learning is set from birth**



Moreover, Arizona parents’ responses to this item differed by socioeconomic status. Lower SES parents were more likely to believe that the capacity for learning is set at birth, compared to higher SES parents (Figure 7). The belief that children’s learning ability is unchangeable may manifest in parenting behavior that is less verbal, less interactive, or that provides fewer learning opportunities (Hoff et al., 2002).

Improving parents' understanding of the importance of the early years for expanding learning capacity and enhancing cognitive growth may result in increased parenting behaviors that promote early brain development for all children.

**Figure 7: Capacity for learning is set from birth by SES of Arizona parents**

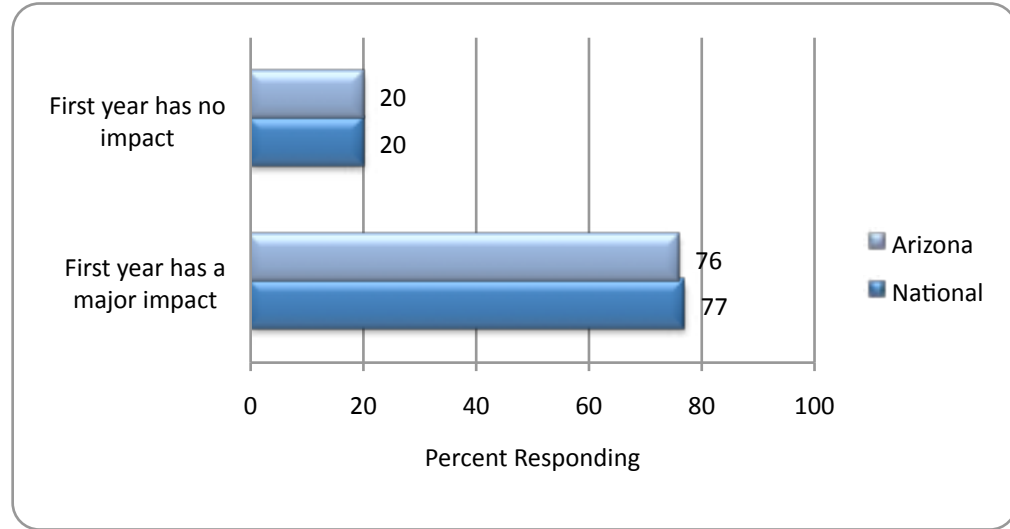


*\*Significant difference between means, for levels of SES:  $F = 83.7, p < .0001$*

Fundamental aspects of brain architecture necessary for successful learning and socio-emotional adjustment are established long before a child enters school (Grossman et al., 2003; Hensch, 2005; Knudsen, 2004; Kuhl, 2004; and the Center on the Developing Child at Harvard University, 2005). These findings highlight the importance of providing complex sets of experiences in the early years for later success in school and life (Hart & Risley, 1995; Raver, 2002; Shonkoff & Phillips, 2000; Thompson, 2007). Specifically, parents should create a home environment that provides the kind of positive interactions, emotional understanding and expression, rich language, and early literacy experiences that provide the child with necessary social, emotional, and cognitive skills to succeed in school.

**More than three-fourths of parents know that the first year of life has a major impact on school performance.**

When asked about the relations among very early experiences and later school performance, more than three-fourths of Arizona parents (76%) and national respondents (77%) recognized the importance of experiences during the first year of life for later school performance. However, about 20% of respondents indicated their belief that first year experience does not have a major impact on later school performance (see Figure 8). This suggests that one-fifth of parents are at risk for not providing enriching activities that lay the foundation for their baby's later academic experiences.

**Figure 8: Does first year impact later school performance?**

## Emotional development

Emotional development begins early, and is related to later success in school and life. Infants as young as one month-old sense when a parent is depressed or angry and are affected by the parent's mood (Brazelton et al., 1975; Cohn and Tronick, 1983; Field, 1984; Murray, 1992). Babies look to their parents' emotional responses for cues that

**Babies look to parents' emotional cues to help them understand their world.**

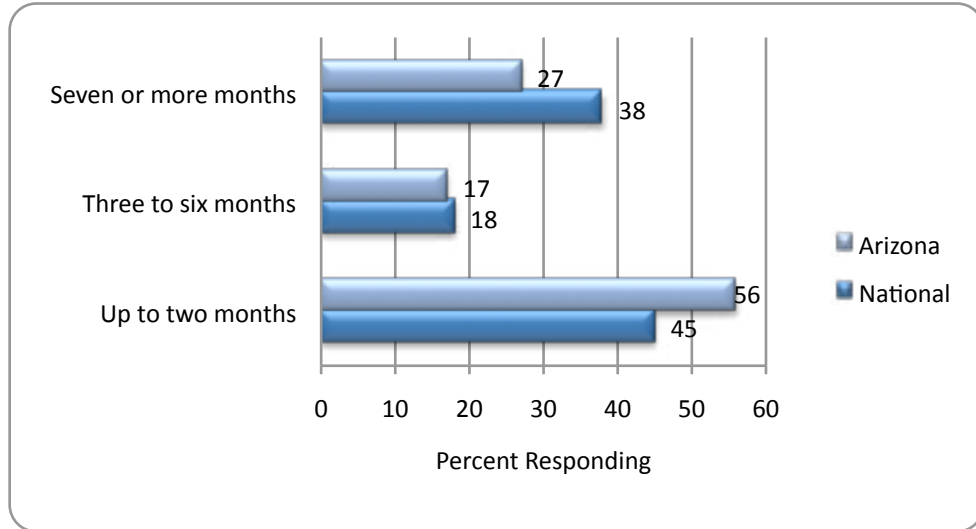
help them to interpret and react to the world around them (Klennert et al., 1983). Caregivers who respond to infants' needs in a positive and loving manner, and who express positive emotions, promote feelings of security, supporting the child's socio-emotional development (Casidy, 1994;

Dawson, et al., 1997; Glaser, 2000; Perry, 2003; 2005). Parents who are emotionally close to their babies provide them with the critical emotional competence (e.g., emotional expression and regulation) needed for cognitive/intellectual development and school readiness (Denham, 1998; Fogel, 1993; Raver, 2002).

Just a little over half (56%) of Arizonans understood that infants younger than two months old sense and respond to parents' moods. Although more Arizona parents seem to understand infants' early sensitivity to their caregivers' emotional status compared to respondents in the national sample, there was a large group of respondents who still believe that very young children are not affected by adult emotions. More than one quarter (27%) of respondents believed that children sense and react to parent emotions only after they reach seven months of age or older (see Figure 9). Parents and caregivers who are unaware of the effects of their emotions on young children may not lay the foundations for emotional control and security so necessary to succeed in school and life.



**Figure 9: At what age can a baby sense and react to parent's emotions?**



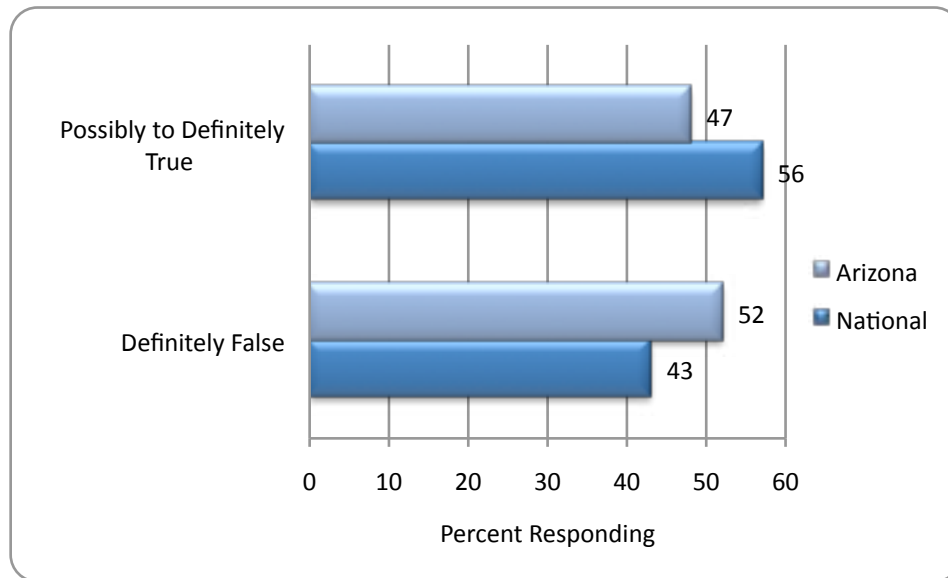
## Language

Talking with a baby prepares him or her for language acquisition and later literacy skills (Berman, 2001; Hart & Risley, 1995). The “sensitive period” for language development occurs at a very early stage in development. Infants develop optimal language skills early in life by interacting directly with responsive caregivers in a language-rich environment (Hart & Risley, 1995; Kuhl, 2004). Research findings clearly indicate that children’s language benefits more from listening and interacting with a real person than sitting in front of a TV (Starburger, 2007; Zimmerman, Chirstakis & Meltzoff, 2007). While talking to a real person, the conversation is reciprocal and participatory; it allows time for reflection, questions, and encouragement. While interacting with the TV children are not getting the same linguistic experience, they are passive and unresponsive viewers. However, the survey results demonstrate that this information is not widely understood.

A little over half of the parents interviewed (52%) understood that TV is **definitely not** a substitute for real conversation. In other words, almost half of Arizona respondents (48%) indicated that television may promote language development as effectively as personal interaction (Figure 10). This represented a slight improvement from the national survey results in 2000, where almost 60% of the respondents indicated their belief that TV might be a reasonable substitute for real conversation. However the large proportion of parents who still believe that TV can substitute for ‘real talk’ suggests that information about the importance of talking to babies and young children needs to be broadly disseminated.

**Children’s language  
development benefits more  
from speaking with a real  
person than watching TV alone.**

**Figure 10: Child's language benefits equally from TV or real person.**



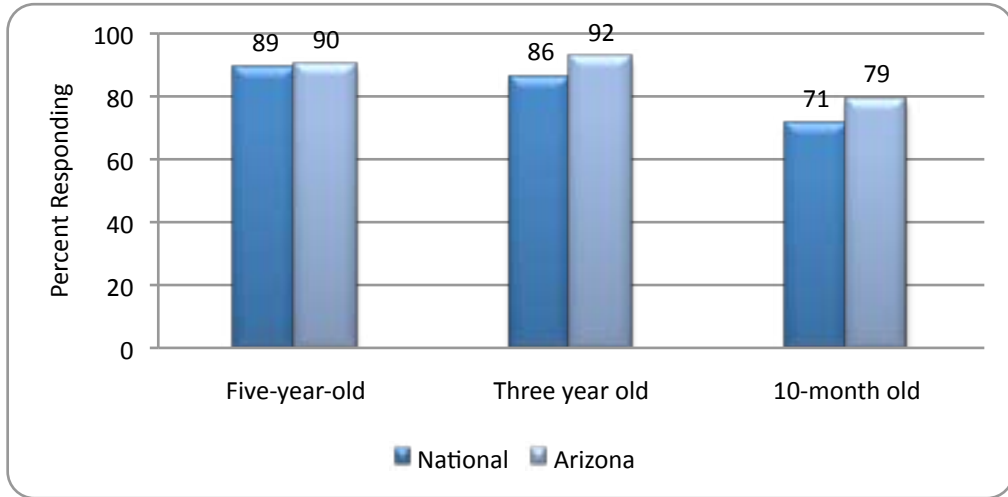
## Play

Play is critical during early development (Frost, 2006; Shonkoff & Phillips, 2000; Tamis-LeMonda et al., 2004). In fact, play is so central to healthy child development that it has been recognized by the United Nations High Commission for Human Rights as a right of every child (UN Committee on the Rights of the Child, 2006). Playing is of crucial importance for children of all ages (Johnson et al., 1999), developing and enhancing their physical, social, and emotional skills (Ginsburg & the Committee on Communications and the Committee on Psychosocial Aspects of Child and Family Health, 2007).

**Play is crucial at all ages—even the earliest months**

When asked about the importance of play for children's development, the vast majority of Arizona parents acknowledged the importance of play for three and five year old children (92% and 90% respectively). While the majority of Arizona parents also indicated that play is very important for a ten-month-old baby, more than one-fifth (21%) of parents did not understand that play is critical for very young children (10 months old) (Figure 11).

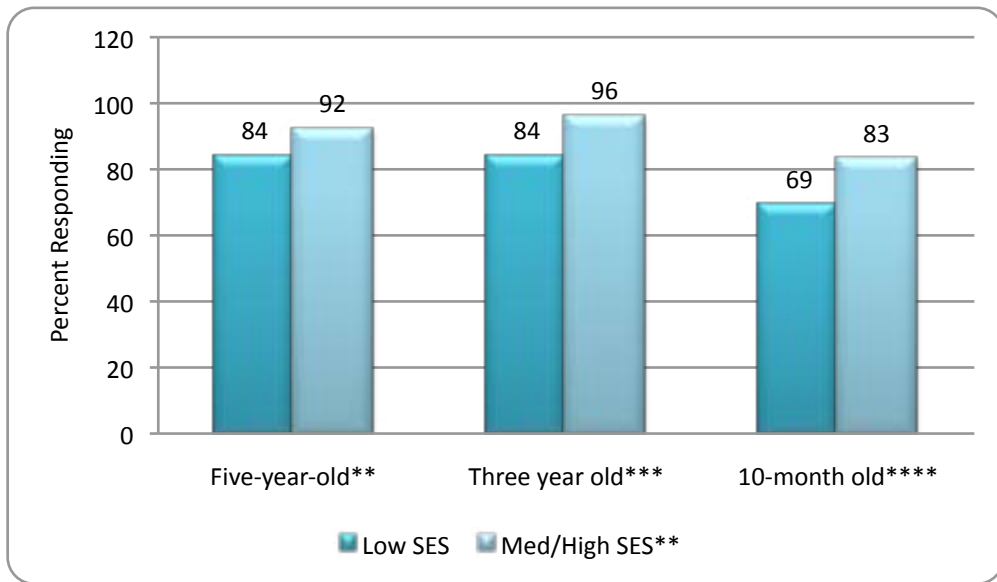
**Figure 11: Importance of Play**



When examined by level of socioeconomic status, play was considered significantly more important at all three ages by parents in the higher SES strata (Figure 12). This corresponds to findings demonstrating that higher SES parents expect children to be more autonomous and to seek out opportunities for learning (Hoff et al., 2002). Lower SES parents who do not perceive play as important may be less likely to provide vital, enriching play experiences for their young children, and may be more restrictive of their children’s active manipulation of the environment.

Play is a child’s way of learning about the world.

**Figure 12: Importance of play by SES of Arizona parents**



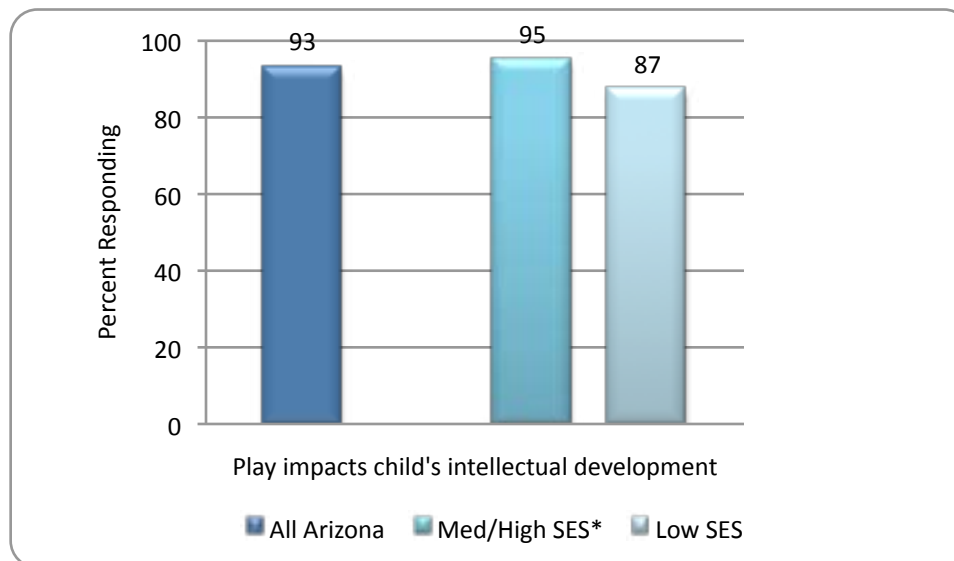
\*\* Significant difference between means, for levels of SES:  $F = 5.3, p < .021$

\*\*\* Significant difference between means, for levels of SES:  $F = 37.5, p < .0001$

\*\*\*\* Significant difference between means, for levels of SES:  $F = 47.7, p < .0001$

In addition, higher SES parents were significantly more likely to indicate that play is important for intellectual development than were parents in the lower SES group (Figure 13). This suggests that information for parents of young children should emphasize the importance of play from the earliest ages as it impacts cognitive as well as social and emotional development, and that communications about the importance of play at all ages need to be targeted to families most in need of information on how to best support their children's healthy development.

**Figure 13: Impact of play on child's intellectual development**



\* Significant difference between means for levels of SES:  $F = 20.6, p < .0001$

### Developmentally appropriate child behavior

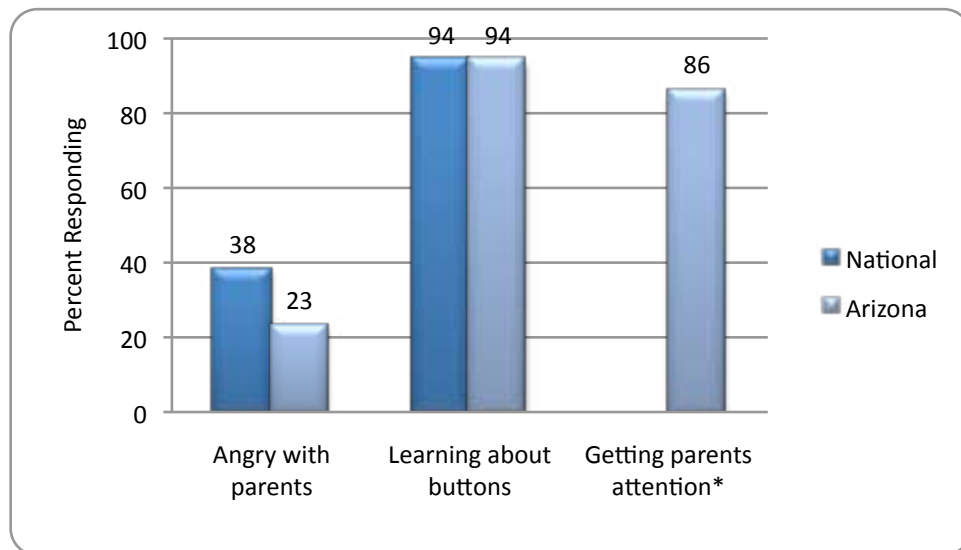
Knowledge of child development helps parents know the difference between normal exploration and misbehavior.

Parental beliefs about children's development are strongly related to their parenting behaviors as well as to child outcomes (Rubin & Chung, 2006; Sigel, McGillicuddy-De Lisi, & Goodnow, 1992). Parents who understand the typical behavior and abilities of children at different ages are less likely to have unrealistic expectations for children's behavior and more likely to appreciate the actions and activities of young children that enhance learning. Thus, it is important for parents to understand that young children are constantly working hard to make sense of their world, and they are always trying to find out how 'things work'. These interactions enable them to learn new concepts and strengthen their neural connections. Parents are much more likely to celebrate their child's accomplishments (and less likely to identify exploratory behavior as 'misbehaving') when they correctly perceive investigative behavior as representative of his or her developmental stage.

Respondents were asked: 'Why would a one year-old push the buttons on the TV, turning it on and off, while his or her parents were watching it?' Most parents, in Arizona and nationally, understood that a child might do this to elicit parental atten-

tion (86%), and even more realized that 12-month old would push the buttons to see what happens (94%). These parents are more likely to perceive this behavior as part of normal development rather than willful misbehavior. However, almost a fourth of Arizona parents (23%) agreed with the unlikely scenario that the child might be angry with her parents (Figure 14). However, developmental research shows that children this young (12-months-old) are not capable of harboring such motivations (revenge/anger; Lewis et al., 1989; Sodian et al. 1991). Given parents respond or choose disciplining strategies based on their beliefs and expectations of child behavior, it is necessary that discipline and boundaries are linked with developmentally appropriate child behaviors.

**Figure 14. Turning the TV on and off**

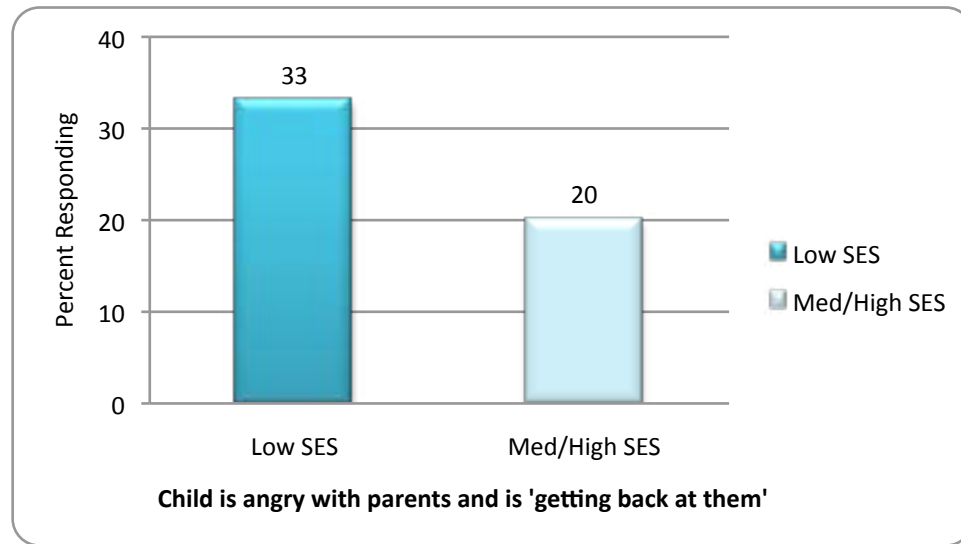


*\*National information is not available for this item.*

Research demonstrates that parental expectations for children's behaviors vary by socioeconomic group, with lower SES parents expecting their children to be quieter and more respectful, and more commonly attributing the exploratory activities of young children to misconduct (Bornstein, Hahn, Suwalsky, & Haynes, 2003; Hoff et al., 2002). This agrees with the findings from the FTF Family and Community survey that more of the parents in the higher SES group and fewer of the lower SES parents understood that a one year-old child would not turn the TV off and on to express anger toward his or her parents (Figure 15).

Parental attributions for children's misconduct has been found to manifest in SES differences in parenting behavior, with lower SES mothers tending to be more restrictive and controlling, while higher SES mothers are less restrictive and less punitive (Bornstein, Hahn, Suwalsky, & Haynes, 2003; Hoff et al., 2002). For this reason, this finding highlights the need to target dissemination of accurate information about young children's age-appropriate activities to parents in the lower SES strata, to increase parental understanding of this behavior and promote positive and supportive, rather than punitive, parenting strategy.

**Figure 15: SES differences in reason 12-month old turns TV on and off**

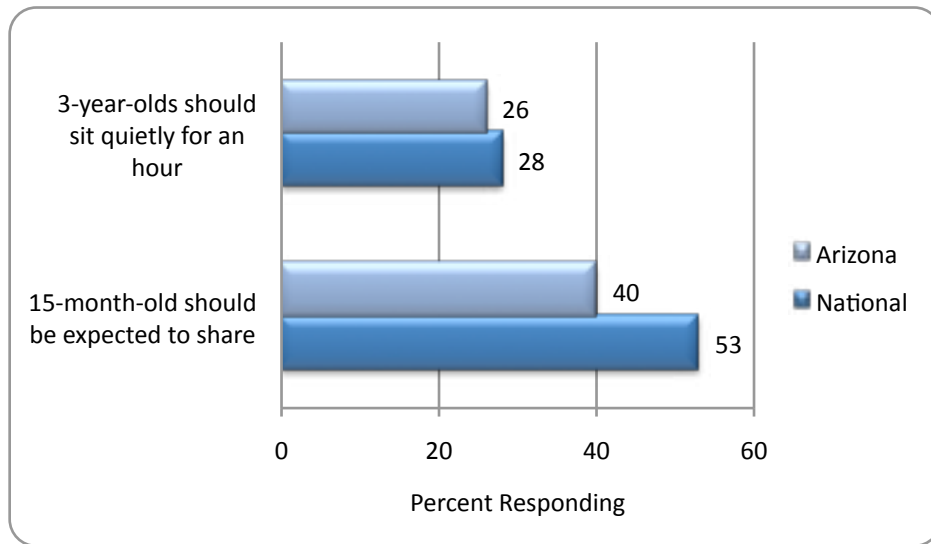


*Chi-square =21.3, p<.0001*

The following two survey items assessed parents' understanding of age-appropriate behavior: 'Should a 15 month-old be expected to share?' and 'Should a three year-old be expected to sit quietly for an hour?'

About 40% of Arizona respondents hold the expectation that 15 month-olds should share (Figure 16) even when developmental research shows that they are too young to do so (Bredekamp & Copple, 1997; Caplan, Vespo, Pedersen & Hay, 1991). A smaller proportion, about 26% believed that three year olds should be expected to sit quietly for an hour. That is, almost half of the parents expect young toddlers to share and a quarter of the respondents expect pre-school aged children to sit quietly for extended periods of time, even though children are not developmentally ready to do so at these ages (Greenberg, 1991; Shonkoff & Phillips, 2000). It may be a relief for some parents to know that their child's behavior is normal. Clear boundaries and expectations for children are critical, but should be appropriate to support children's developing brains.

**Figure 16. Age appropriate behavior: Sharing and sitting quietly**



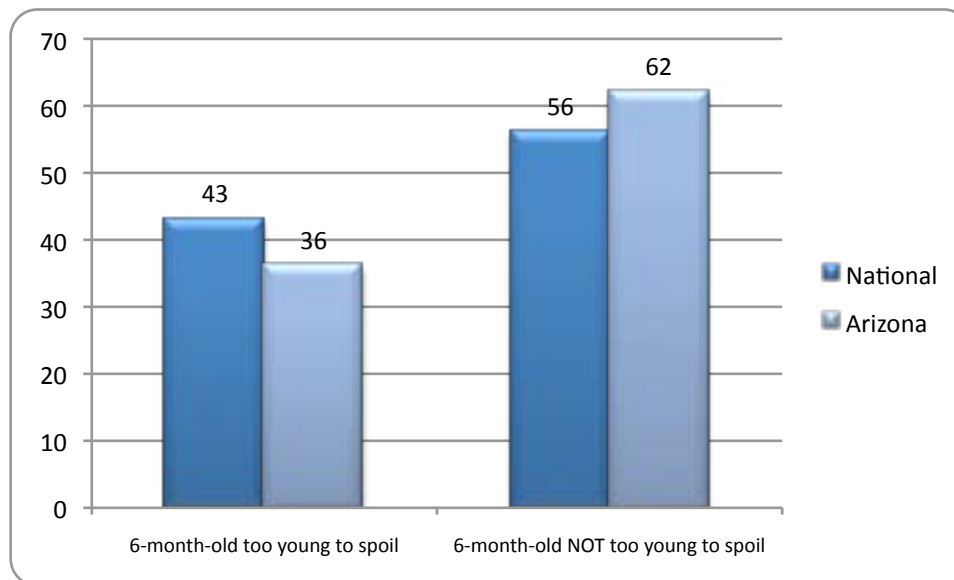
As noted above, parents who understand what child behaviors and abilities are appropriate at different ages and stages of development tend to engage in positive parenting behaviors that support development and growth (Rubin & Chung, 2006; Sigel, McGillicuddy-De Lisi, & Goodnow, 1992). Parents with unrealistic expectations about the ages at which their babies and young children are ready to engage in certain behaviors, may not be adequately responsive to the needs of the child; or may consider the child as misbehaving, resulting in more punitive or restrictive parenting.

**Parents can help their children  
by knowing what to expect at  
every age**

Moreover, parents who do not understand the timing of children's developmental needs and abilities sometimes identify the actions of caregivers who are meeting those needs as 'spoiling' the child.

Developmental research suggests that six month-olds are too young to spoil. Responding to an infant's needs in loving, timely, reliable and consistent ways (e.g. picking up when crying, feeding when hungry), and setting limits through routines (e.g., consistent nap time, feed time) helps infants make connections between their own behavior and caregiver responses, leading children to feel secure, emotionally connected to their parent, and promoting development of self-regulation skills that help them become independent (Brazelton, 1992; 1999; 2003; Sears & Sears, 1993).

When asked whether a six-month-old can be spoiled or is too young to spoil, 62% of Arizona parents of young children stated that a six-month old could be spoiled (Figure 17). The belief that a six month-old can be spoiled may lead to less responsive parenting, potentially affecting the child's security, attachment, and later emotional development.

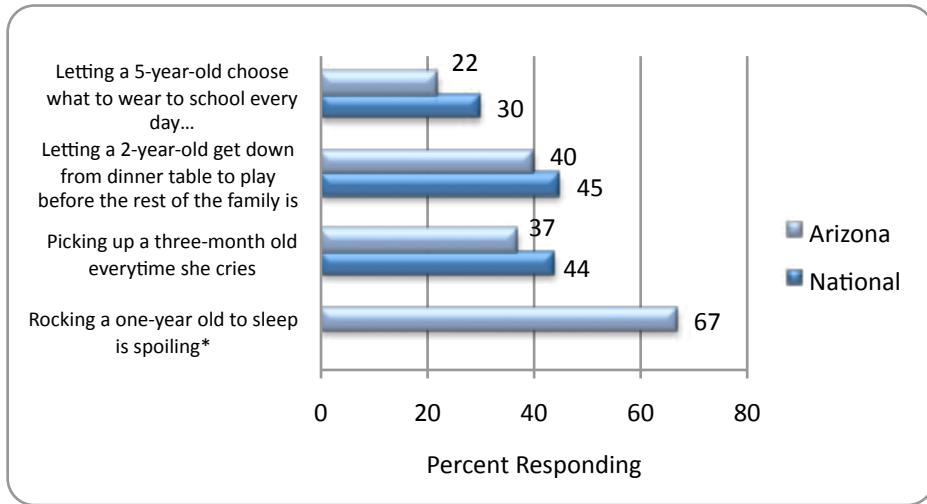
**Figure 17: Can a 6 month-old be spoiled?**

Four questions assessed parents' understanding of appropriate parenting by asking about 'spoiling.' These items asked whether the following behavior is appropriate or if it will 'spoil' the child: picking up a 3 month-old whenever she cries, rocking a one-year old to sleep, letting a 2 year-old get down from the dinner table before the rest of the family, and letting a 5 year-old choose his school clothes. Engaging in these caregiving activities constitutes appropriate, sensitive parenting with children of each age and none of these activities alone will spoil a child (Solomon, 1993). For example, letting a two year old get down from the dinner table before the rest of the family has finished the meal won't spoil him. This is an appropriate parenting behavior as developmental research shows that two-year-olds do not have the capacity to sit and wait quietly for long periods of time (Greenberg, 1991), both because they are just beginning to develop the ability to wait and regulate their behavior and that they need to be physically active (Shonkoff & Phillips, 2000). Letting a five-year old choose their outfit gives them autonomy and helps them develop independence and self-regulation. Developmentally appropriate parenting does not mean 'no rules.' Parents need to set limits. For this reason, providing parents with quality information about appropriate expectations is crucial.

From one-fourth to two-thirds of Arizona parents identified each of these actions as something that would 'likely spoil the child' (Figure 18). This lack of understanding of the needs of young children at various ages is of concern. Parents who do not respond with age-appropriate sensitivity may restrict their children's opportunities for security, autonomy, and growth.



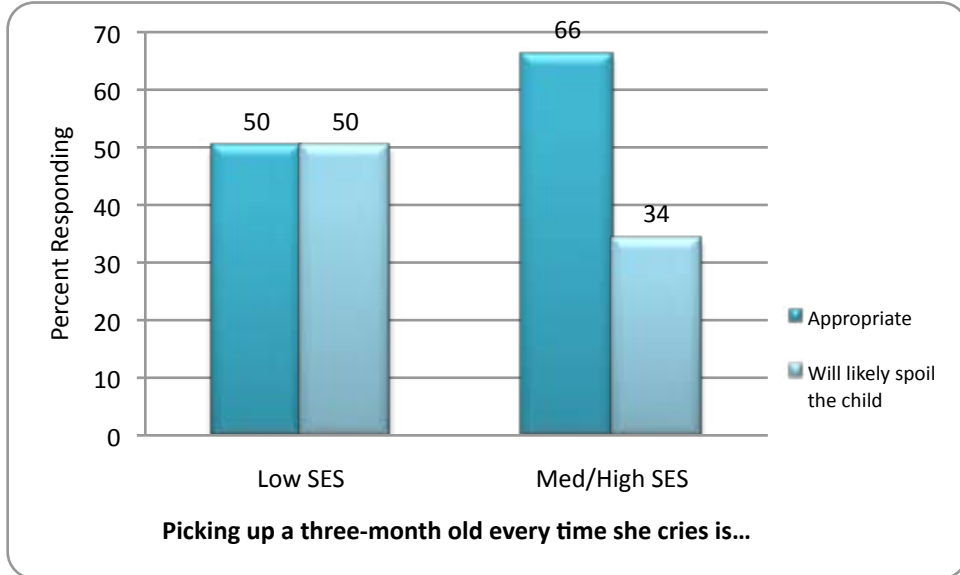
**Figure 18. What will spoil a child?**



*\*National information is not available for this item.*

Additionally, significantly more parents in the low SES group indicated that picking up a crying 3-month old is likely to spoil the child (Figure 19).

**Figure 19: Will picking up a three-month-old every time she cries spoil the child: SES differences.**



*\*Chi-Square = 67.5, p<.003*

The results from this survey make it clear that Arizona parents are concerned with their child’s growth and flourishing and can benefit from more, better, and readily accessible information about child development. Parenting based on accurate understanding of age-appropriate emotional, social, cognitive, and language development is most effective, and will best prepare all children for success in school and later in the workplace and community.

## Arizona results and the national findings

---

When the National survey results are compared to the Arizona findings, there are a number of items on which Arizona parents demonstrated more accurate knowledge than seen in the National sample. This may be explained by differences in the dates of administration of the survey. Whereas the national survey was completed in 2000, the Arizona survey was completed eight years later, in 2008. During that period of time, early childhood has gained a great deal of national attention; and knowledge related to the importance of early childhood is likely to have improved.

Overall, in answering questions related to the importance of a variety of early experiences, most parents in Arizona and nationally seem to understand the impact of early life on later development. However, there were still many parents of children under six years-old whose responses indicated a lack of good information. While Arizona's results are similar to national results, and most respondents understand the importance of early learning and play, there is an ongoing need for the dissemination of information to parents about language development, the importance of play at early ages, and developmentally appropriate child behavior and parenting.

## V. Parent Perceptions of Early Childhood Services

---

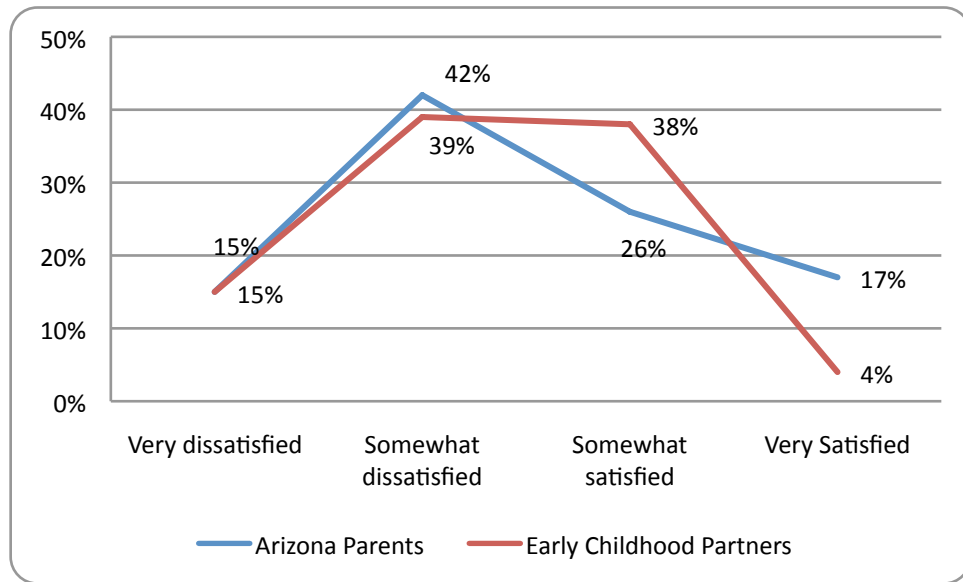
Parents were asked to provide their perspectives about the quality of, and access to, information and services provided by Arizona agencies that serve young children and their families. Similar questions were also asked of FTFs early childhood partners for the *FTF Partner Survey: Collaboration and Communication*. This section compares the responses of Arizona parents of children under six years old with the responses of representatives of Arizona agencies and organizations that provide services for children and their families. The responses of parents to these questions were also analyzed by socio-economic status grouping, and the results of those analyses are presented for items for which there were significant SES differences.

**The partner survey.** The FTF Partner Survey: Communication and Collaboration was designed to provide baseline measurement of the degree to which early childhood services work together in Arizona. The FTF Partner Survey assessed the understanding and perceptions of FTF's early childhood partners about the degree of coordination and communication among agencies and organizations serving young children and their families in Arizona. The FTF Partner Survey was completed by early childhood partners representing a wide array of venues, including members of the FTF Regional Partnership Councils, FTF Board members, staff and administrators from state agencies and other service providers, community partners, representatives from non-profit organizations, educators, legislators, and health service providers, among others.

## Communication & Collaboration

Parents and early childhood partners were asked how well Arizona agencies that serve young children and their families work together and communicate with one another.

**Figure 20: Satisfaction with Collaboration**

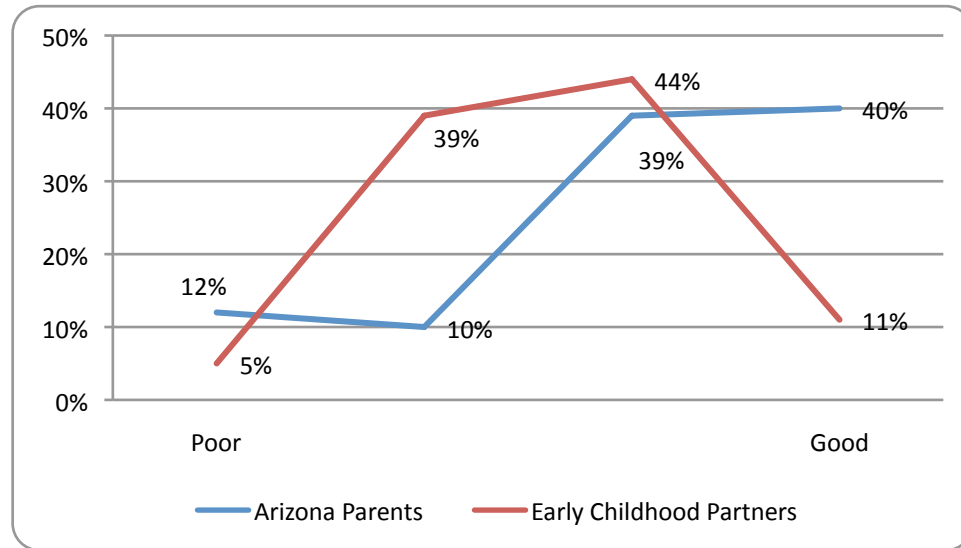


More than half of parents are dissatisfied with coordination in Arizona

More than half of parents (57%) were dissatisfied with the degree to which Arizona’s agencies work together, with 15% very dissatisfied. A total of forty-three percent (43%) of parents were satisfied with communication and collaboration among agencies, and 42% of early childhood partners indicated satisfaction (Figure 20). Thus similar proportions of service providers and consumers of those services indicate satisfaction and dissatisfaction, although a smaller proportion of partners stated that they were **very satisfied**. This finding suggests that a large number, about half, of both service providers and consumers of those services see the need for significant improvement in across-agency interaction and partnership.

## Quality Support for Families

In addition to reporting on communication and collaboration among Arizona agencies, parents were asked to assess the quality of support provided by early childhood services in Arizona.

**Figure 21: Quality of Services**

In response to the statement “**Available services are very good,**” about 79% of parents somewhat or strongly agreed. Whereas almost half (44%) of partners indicated that the quality of services is poor, only 22% of parents described the quality of services as anything less than good (Figure 21). Thus, many more parents stated that the quality of services is quite good, compared to service providers.

Uncovering the reasons for the differences between parent and partner responses will require additional examination of the data. The broad and non-specific wording of the survey item — lack of specific identification of what was meant by of ‘services’ — may have contributed to the limited variability of response found in the parent sample. Moreover, it is likely that most Arizona families are doing well and infrequently need to access services, and therefore have few opportunities for negative experiences. The 22% of parents who indicated that service quality is not good may represent a different group of Arizona families.

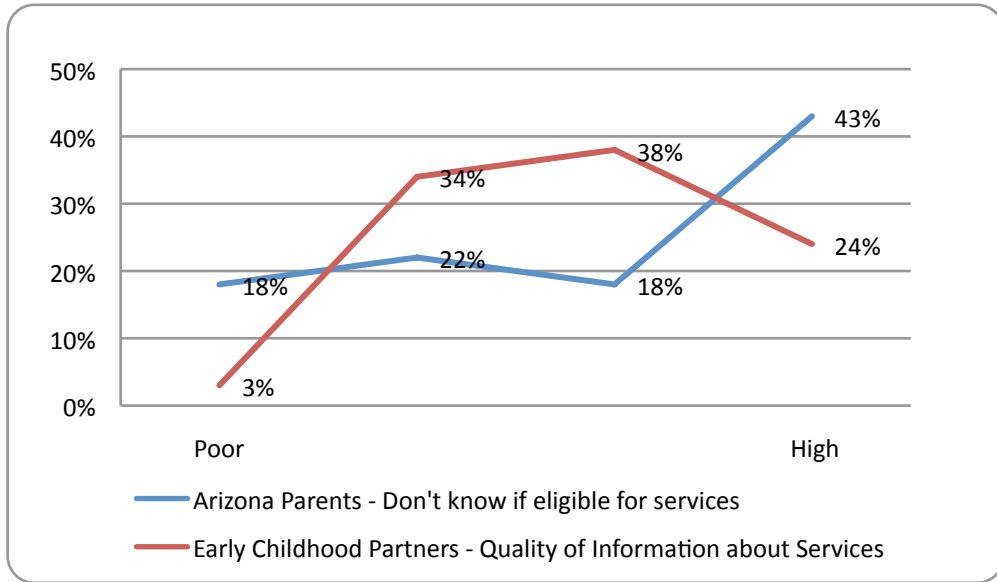
Additionally, the survey assessed three aspects of early childhood services: **information about services, access to services, and family focus.**

### Information and Access

Overall, both partners and parents indicated that quality of information and access to services are the areas with poorest performance—with respondents indicating that good information about services is not available and that services are difficult to access.

The quality of the information available to parents about services was assessed by an item that asked parents if they know whether or not they are eligible for needed services.

**Figure 22: Quality of Information about Services**

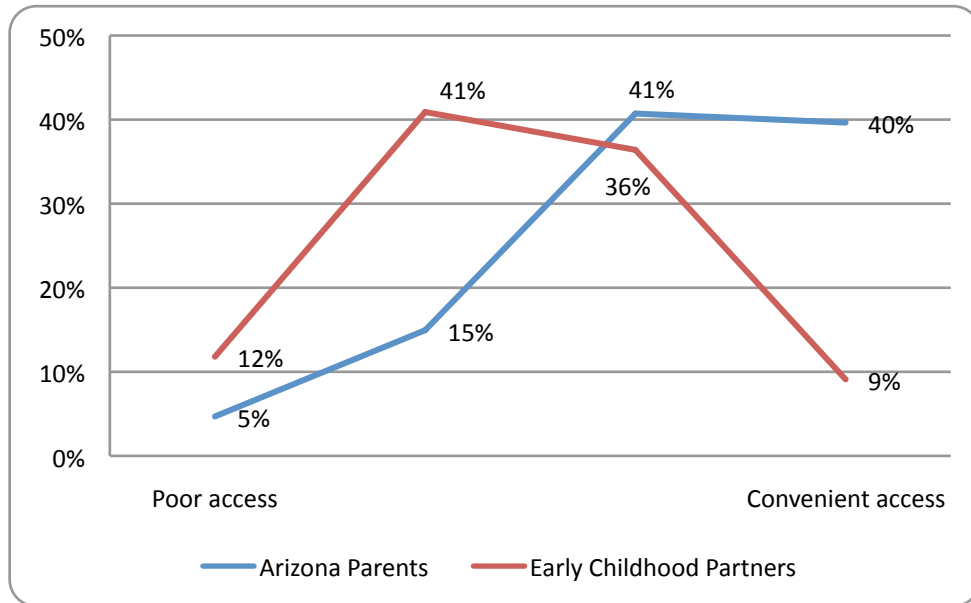


Access to good information about eligibility is challenging for a large number of parents, with 40% agreeing that they are unsure about their eligibility for needed services. This proportion is similar to the 37% of partners who noted that the quality of information about services is problematic (Figure 22). Thus, almost half of parents of young children in Arizona indicate that they do not have required information about their potential eligibility for needed services, and partners working at the agencies agree that quality of information is problematic. In addition to difficulty obtaining good information, access to services is also an issue for a number of respondents. Twenty percent (20%) of parents noted that services were not at convenient times or locations. Even more FTF partners (53%) agreed that while quality services exist, access is a problem (Figure 23).

**Almost forty percent of parents said that available services do not meet their family's needs**

When considered in conjunction with the previous question, it appears that a solid 20% of Arizona parents with young children are experiencing barriers to needed services. Further identification of this sub-group will help target improvements in access to both information and actual services.

**Figure 23: Convenient Access to Services**



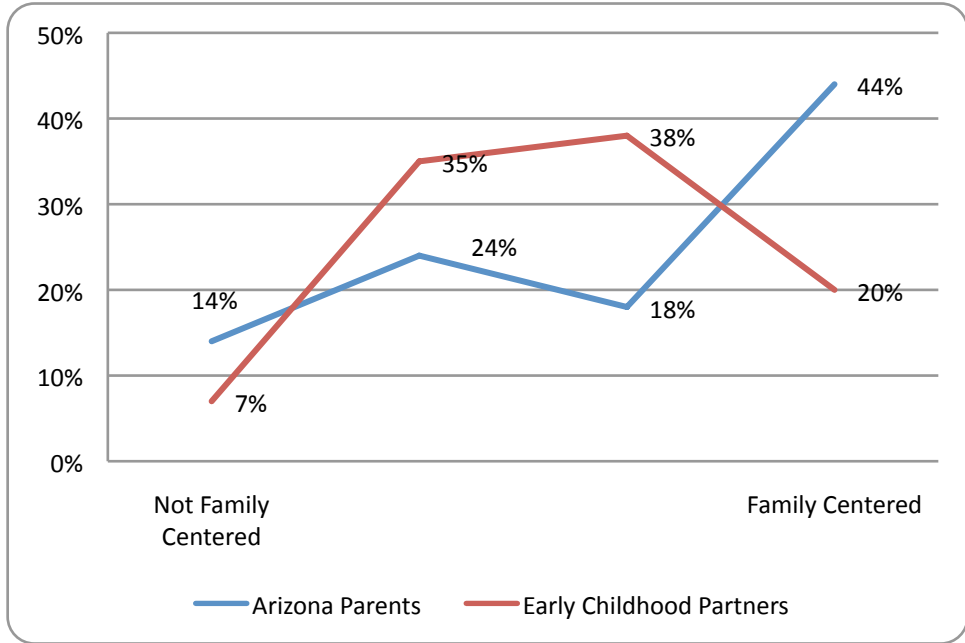
In addition to providing adequate information and access, it is important that services meet all the needs of families, including prevention and early intervention. A focus on the family and availability of preventive services seem to be problematic for a larger proportion of families.

**Family focus and early intervention**

**Families most in need of comprehensive, family focused services may not be getting them.**

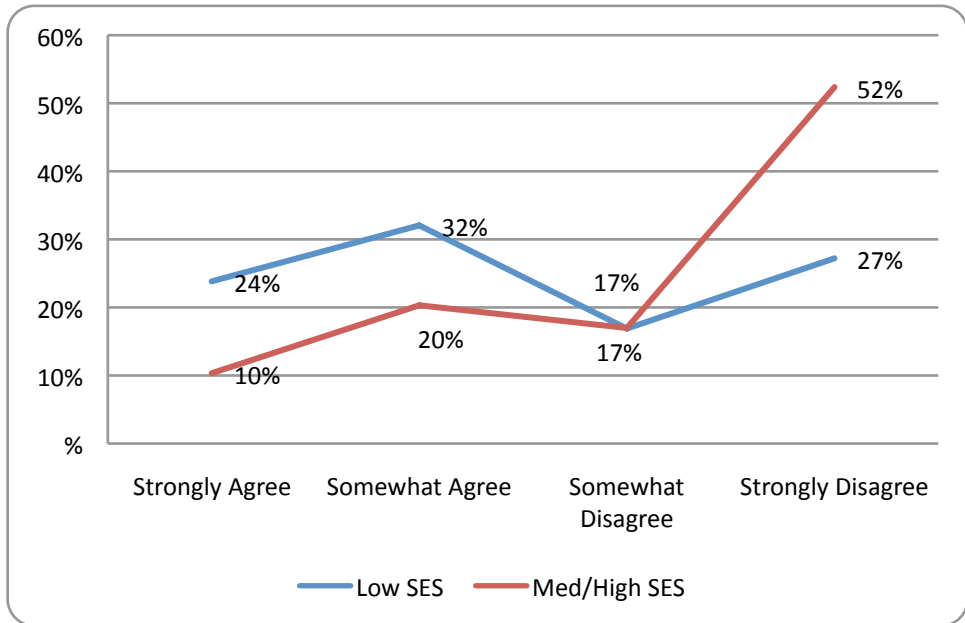
Although almost sixty percent (58%) of early childhood partners rated the family focus of organizations good to excellent, and 62% of the parents indicated that services are meeting their family’s needs, the remaining 38% of parents perceive that available services do not meet the needs of their families (Figure 24).

**Figure 24: Family Centered Practice**



Moreover, Arizona parents in the lower SES group were most affected by the lack of family-centered services, with more than half of the lower SES parents (56%) dissatisfied with the comprehensiveness of services, compared to less than a third of the higher SES respondents (30%, Figure 25). This suggests that the families most in need of comprehensive, family-focused services may not be receiving them.

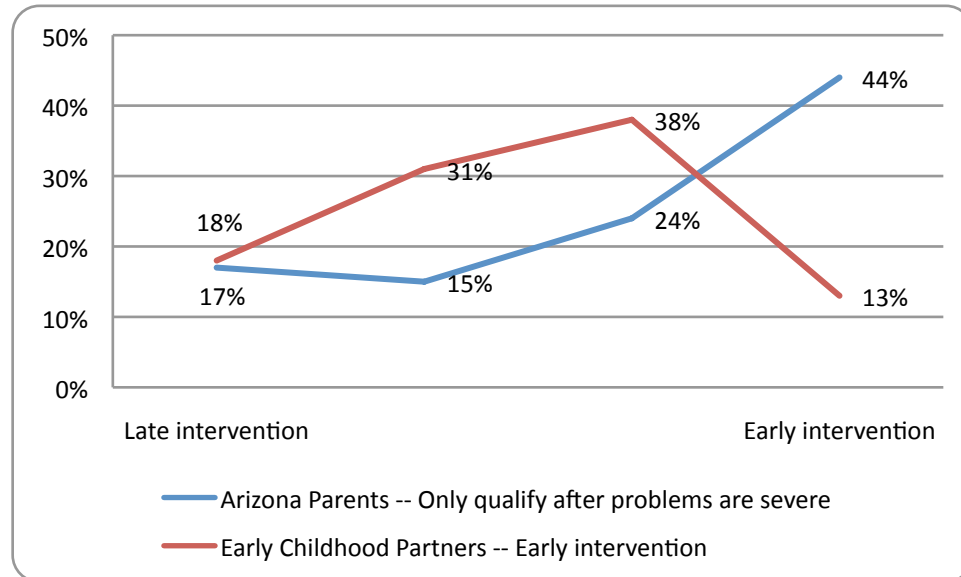
**Figure 25: SES Differences in Perception of Family Centered Services**



\*Chi-Square = 86.0, p<.0001

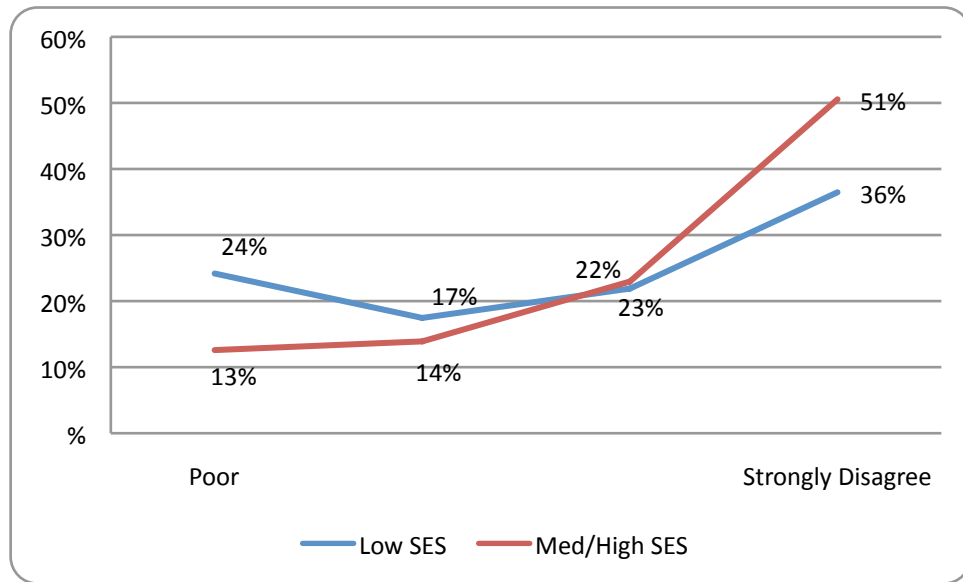
Preventive services and early identification of problems for early intervention optimizes children's opportunities for healthy development and future success. When asked about the availability of preventive and early intervention services, about one-third of parents (32%) and almost half of partners (49%) agreed that Arizona agencies serving young children and their families are not identifying or providing services for problems at an early stage (Figure 26).

**Figure 26: Prevention and early Intervention**



In addition, a significantly larger proportion of lower SES parents (41%) reported difficulty with obtaining early intervention services, compared to twenty-seven percent of the higher SES group (Figure 27). This indicates that there is a sizable segment of Arizona families that are not receiving prevention and early intervention when needed.



**Figure 27: SES Differences in Early Intervention/Prevention Services**

\*Chi-Square = 41.2,  $p < .007$

Overall, survey findings indicate that both Arizona parents of young children and representatives of organizations and agencies that serve these families have identified important gaps in the information about available services and access to both information and services. A large percentage of partners and parents agree that early identification and treatment of problems, as well as focusing on the family as a whole need improvement.

### Parents' and partners' responses

A noticeable difference between the patterns of response for parents compared to early childhood partners can be seen, especially in the most extreme positive category for each item. In each case, a notably smaller proportion of partners subscribed to the most favorable response category, compared to a larger group of Arizona parents. It is possible that these discrepancies can be explained by differences in the nature of the two samples, and their varying perspectives.

The group of Arizona parents surveyed was selected to be representative of the entire population of Arizona parents; and the final results presented in this report are population estimates calculated to accurately represent the entire population of Arizona parents with children under 6. Thus, this group includes parents whose families are doing well, and who do not need, and are not trying to access or use, special services to support their families. These families most likely are represented in the forty- to sixty-percent of parents who consistently indicated that information, access, etc., were very good. However there was, for all items, a group of twenty- to thirty-percent of parents who consistently indicated problems with service access or provision.

The early childhood partners surveyed work in Arizona organizations and agencies that serve children under six and their families. It is likely that partner responses reflect their perception of the efficacy of services *for those families that need and*

*are trying to access and use services to support their families.* In this case, partner responses may actually look more like those of parents who need and are trying to use the services provided by the partners' agencies. That is, partners may be indicating that services are not very good, very accessible, etc. *for those families who need them.*

Further analyses of the data to identify the characteristics of parents and families with who indicated dissatisfaction with services may clarify these findings.

## VI. Conclusion

---

The FTF Family and Community Survey was completed by almost 3700 parents of children five and under in Arizona. This report presented some of the findings for the estimated Arizona population of all Arizona parents with children ages zero to five years-old, including parents' knowledge of early development and age-appropriate behavior, and respondents perceptions of services for children under 5 and their families.

### Knowledge

---

When asked about early development, most Arizona parents understood that brain development starts early. However, at least twenty percent of parents did not realize that

- The first year impacts later school,
- Even very young babies take in and respond to their environment,
- Infants react to the mood of their caregiver,
- Play is important for young babies and for intellectual development, and
- Language is better learned by 'real talk' rather than from watching TV.

The survey also measured parents' understanding of age-appropriate child behavior and age-appropriate parenting during the early years of life. When asked if a number of parenting behaviors were appropriate or were likely to spoil a child, more than one-third of parents did not correctly identify typical abilities and behaviors of children.

Many parents did not understand that

- A 12 month olds' exploratory behavior is normal, and not motivated by anger at a parent
- Attentive, responsive parenting will not spoil an infant
- Rocking a one year old to sleep will not spoil him
- A 15 month old will typically not be ready to share
- A two year old is usually not capable of quietly sitting for an extended period of time
- A typical three year old cannot sit still for an hour

- A five year old who chooses his own school clothes is learning autonomy and self-confidence

Parents who believe that meeting the needs of a child or permitting the child to engage in certain age-appropriate behaviors will ‘spoil’ the child, may be more controlling, restrictive, and punitive and less sensitive and responsive than parents who accurately understand the typical actions and abilities of their child. Increasing parents’ understanding of the timing of child needs and developmental milestones, may improve appropriate, sensitive, responsive parenting behaviors which enable them to support healthy socio-emotional, literacy, and brain development.

The assessment of parents’ understanding of early development and the timing of children’s early abilities identified a number of knowledge gaps which highlight areas in which parents need additional education and accurate information. Improving parents’ understanding of these concepts may positively impact the degree to which they sensitively interact with their children.

## Services

---

Parents were asked about services in Arizona for young children and their families. Parents’ responses were compared to the findings from the FTF Partner Survey of stakeholders from agencies and organizations statewide that serve young children and their families. Although many parents do not report difficulty, there is a group of parents who indicate that

- Agencies are not working together and communicating
- The quality of available services is not good
- They do not have good information about things like eligibility
- Needed services are not very accessible
- Services are not family centered
- Prevention and early intervention are not available

Lower SES families are more likely to find that services are not readily available or comprehensive. A larger proportion of parents in the lower SES group reported that services do not meet the needs of their whole families and that they only qualify for services after problems become severe. This provides insight into specific aspects of service coordination and provision that can be improved to ensure that Arizona’s youngest residents and their families are readily obtaining the assistance and services they need to optimize their child/children’s health, development, and future educational success.

Knowledge gained from this survey provides insight into which early childhood issues are important to Arizona’s parents, what the areas are in which families need additional support in receiving services for their children, and what parents know and do not know about the development of young children. FTF will work with early childhood partners across the state of Arizona to focus coordination, communication, and family support efforts to most effectively meet the needs of Arizona’s families and children.

## VII. References

- Berman, S. (2001). Pediatricians need to help foster early brain development in children. *AAP News*, 19, 46.
- Brazelton, T. B. (1992). *Touchpoints birth to 3: Your child's emotional and behavioral development*. New York: Perseus Publishing.
- Brazelton, T. B. (1999). *Discipline: Setting limits with love* [VHS tape]. [Beverly Hills, CA]: New Screen Concepts; I Am Your Child.
- Brazelton, T. B., & Sparrow, D. J. (2003). *Discipline: The Brazelton Way*. Perseus Publishing.
- Brazelton, T. B., Tronick, E., Adamson, L. Als. H., & Wise, S. (1975). Early mother-infant reciprocity. In: *Parent-infant interaction-Ciba Foundation Symposium 33*, Elsevier/ North Holland, Amsterdam.
- Bredenkamp, S. & Copple, C. (1997). *Developmentally appropriate practice in early childhood programs*. Washington, D.C.: NAEYC. (DAP)
- Brooks-Gunn, J. & Duncan, G. J. (1997). The effects of poverty on children. *Children and Poverty*, 7(2), summer/fall.
- Bornstein, M. H., Hahn, C., Suwalsky, J. T. D., & Haynes, O. M. (2003). Socioeconomic status, parenting and child development: The Hollingshead Four factor index of social status and the socioeconomic index of occupations. In *Socioeconomic Status, Parenting, and Child Development* by Marc H. Bornstein, Robert H. Bradley. Published by Lawrence Erlbaum Associates.
- Bowman, B. T., Donovan, M. S., & Burns, M. S. (2001). *Eager to Learn: Educating our Preschoolers*. Commission on Behavioral and Social Sciences and Education. National Academy Press.
- Caplan, M., Vespo, J., Pedersen, I., & Hay, D. (1991). Conflict and its resolution in small groups of one- and two-year-olds. *Child Development*, 62, 1513-1524.
- Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. In N.A. Fox (Ed.), *The development of emotion regulation and dysregulation: Biological and behavioral aspects*. *Monographs of the Society for Research in Child Development*, 59(2-3), 228-249 (Serial no. 240). Center on the Developing Child at Harvard University (2005). *Excessive stress disrupts the architecture of the developing brain*, Working Paper # 3 (<http://developingchild.net>).
- Chen, E., Martin, A., & Matthews, K. (2006). Understanding health disparities: The role of race and socioeconomic status in children's health. *American Journal of Public Health*, 96(4), 702-708.
- Chugani, H. T. (1997). Neuroimaging of developmental non-linearity and developmental pathologies. In R. W. Thatcher, G. R. Lyon, J. Rumsey, and N. Krasnegor, eds. *Developmental Neuroimaging: Mapping the Development of Brain and Behavior*. San Diego: Academic Press, 187- 195.
- Cohn, J. E., & Tronick, E. Z. (1983). Three-month-old infants' reaction to simulated maternal depression. *Child Development*, 54, 185-193.
- Cunha, F., Heckman, J., Lochner, L., & Masterov, D. (2005). *Interpreting the Evidence on Life Cycle Skill Formation* (North-Holland, Amsterdam) cited in Knudsen, E. I., Heckman, J. J., Cameron, J. L. & Shonkoff, J. P. (2006) Economic, neurobiological, and behavioral perspectives on building America's future workforce. *Proceedings of the National Academy of Sciences*, 103, 10155-10162.
- Dawson, G., Frey, K., Panagiotides, H., Hessel, D., & Self, J. (1997). Infants of depressed mothers exhibit atypical frontal brain activity: A replication and extension of previous findings. *Journal of Child Psychology and Psychiatry*, 38, 179-186.
- DeCasper, A. J. & Fifer, W. P. (1980). Of human bonding: Newborns prefer their mothers' voices. *Science*, 208, 1174-1176.
- Denham, S. (1998). *Emotional Development in Young Children*. New York: Guilford.
- DYG, Inc (2000). *What Grown Ups Understand About Child Development: A National Benchmark Survey*, Civitas Initiative, ZERO TO THREE & Brio Corp. Washington, DC: Zero to Three. <http://www.zerotothree.org/site/PageServer?pagename=homepage>.
- Field, T. M. (1984). Early interactions between infants and their postpartum depressed mothers-infant interactions. *Infant Behavior and Development*, 7, 527-532.
- Fogel, A. (1993). *Developing through relationships: Origins of communication, self, and culture*. Chicago: University of Chicago Press.
- Frost, J. L. (2006). *Neuroscience, play and brain development*. Paper presented at: IPA/USA Triennial National Conference; Longmont, CO; June 18-21, 1998. Available at: [www.eric.ed.gov](http://www.eric.ed.gov). Accessed on February 27, 2009.
- Ginsburg and the Committee on Communications and the Committee on Psychosocial Aspects of Child and Family Health (2007). *The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds*. *The American Academy of Pediatrics Clinical Report*, 119(1), 182-191.
- Glaser, D. (2000). Child abuse and neglect and the brain: a review. *Journal of Child Psychology and Psychiatry*, 41(1), 97-116.
- Greenberg, P. (1991) *Character development: encouraging self-esteem and self-discipline in infants, toddlers and two-year-olds*. Washington, DC: NAEYC.
- Gregory, A., & Rimm-Kaufman, S. (2008). Positive Mother-child Interactions in Kindergarten: Predictors of School Success in High School. *School Psychology Review*, 37(4), 499-515.
- Grossman, A. W., Churchill, J. D., McKinney, B. C., Kodish, I. M, Otte, S. L., & Greenough, W. T. (2003). Experience effects on brain development: possible contributions to psychopathology. *Journal of Child Psychology and Psychiatry*, 44, 33-63.
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Brookes Publishing.
- Hensch, T. (2005). Critical period plasticity in local cortical circuits. *Nature Reviews Neuroscience*, 6, 877-888.

- Hofer, M.A. (1996). Multiple regulators of ultrasonic vocalization in the infant rat. *Psychoneuroendocrinology*, 21, 203-217.
- Hoff, E., Laursen, B., & Tardif, T. (2002). Socioeconomic Status and Parenting. In Bornstein, M. *Handbook of Parenting: Biology and Ecology of Parenting Vol. 2*, New Jersey: Lawrence Erlbaum.
- Johnson, J. E., Christie, J. F., & Yawkey, T. D. (1999). *Play in Early Childhood Development*. Addison Wesley Longman, NYC.
- Kim, S., Kronenfeld, J., Frimpong, J., & Rivers, P. (2007). Effects of Maternal and Provider Characteristics on Up-to-Date Immunization Status of Children Aged 19 to 35 Months. *American Journal of Public Health*, 97(2), 259-266.
- Klennert, M., et al. (1983). "Social Referencing: Emotional Expressions as Behavior Regulators." In *Emotion: Theory, Research, and Experience: Vol. 2. Emotions in Early Development*. Academic Press, Orlando, FL.
- Knudsen, E. (2004). Sensitive periods in the development of the brain and behavior. *Journal of Cognitive Neuroscience*, 16, 1412-1425.
- Knudsen, E., Heckman, J., Cameron, J., & Shonkoff, J. (2006). Economic, neurobiological and behavioral perspectives on building America's future workforce. *Proceedings of the National Academy of Sciences USA*, 103, 10155-10162.
- Kuhl, P. K. (2004). Early language acquisition: Cracking the speech code. *Nature Reviews Neuroscience*, 5, 831-843.
- Lewis, M., Stranger, C., Sullivan, M.W. (1989). Deception in 3-year-olds. *Developmental Psycholog*, 25, 439-443.
- McIntosh, B., Taylor, M., Crosbie, S., Holm, A., & Dodd, B. (2007). The literacy abilities of 11 year-old students from socially disadvantaged backgrounds. *Advances in Speech Language Pathology*, 9(2), 181-190.
- Murray, L. (1992). The impact of postnatal depression on infant development. *Journal of Child Psychology and Psychiatry*, 33, 543-561.
- National Scientific Council on the Developing Child. (2007). *The Timing and Quality of Early Experiences Combine to Shape Brain Architecture*. Working Paper # 5. Cambridge, Massachusetts: Centre on the Developing Child, Harvard University. <http://www.developingchild.net>
- Perry, B.D. (2000). The neuroarcheology of childhood maltreatment: The neurodevelopmental costs of adverse childhood events. Retrieved 2/25/09 (<http://www.childtrauma.org>).
- Perry, B. (2003) *Effects of Traumatic Events on Children: An introduction*. *The Child trauma Academy* <http://www.childtrauma.org>.
- Perry, B.D. (2005). Developing Self-regulation: The second core strength your child needs to be humane and protect himself from violence. *Early Childhood Today Magazine*.
- Raver, C.C. (2002). Emotions matter: Making the case for the role of young children's emotional development for early school readiness. *Social Policy Report*, 16(3), 3-18.
- Rubin, K. H. & Chung, O. B. (2006). *Parenting Beliefs, Behaviors, and Parent-child Relations: A Cross-cultural Perspective*. Published by CRC Press.
- Sears, W., & Sears, M. (1993). *The baby book: Everything you need to know about your baby--from birth to age two*. 1<sup>st</sup> Ed.: Boston, MA: Little, Brown.
- Shonkoff, J. P. & Phillips, D. A. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, D.C.: National Academy Press.
- Shore, R. (1997). *Rethinking the Brain: New Insights into Early Development*. New York, NY: Families and Work Institute.
- Sigel, I. E., McGillicuddy-De Lisi, A. V., & Goodnow, J. J. (1992). *Parental Belief Systems: The Psychological Consequences for Children*. 2<sup>nd</sup> Ed: Published by Lawrence Erlbaum Associates.
- Sodian, B., Taylor, C., Harris, P. L., & Perner, J. (1991). Early deception and the child's theory of mind: False trails and genuine markers. *Child Development*, 62(3), 468-483.
- Solomon, R., Martin, K., & Cottington, E. (1993). Spoiling an infant: Further support for the construct. *Topics in Early Childhood Special Education*, 13(2), 175-183.
- Stamm, J. (2007). *Bright from the Start*. Gotham Books, NYC.
- Strasburger, V. (2007). First do no harm: Why have parents and pediatricians missed the boat on children and media? *The Journal of Pediatrics*, 151(4), 334-336.
- Tamis-LeMonda, C. S., Shannon, J. D., Cabrera, N. J., & Lamb, M. E. (2004). Fathers and mothers at play with their 2- and 3-year-olds: contributions to language and cognitive development. *Child Development*. 75, 1806-1820
- Thompson, R. A. (2007). *Testimony at House Committee on Education and Labor Subcommittee on Early Childhood, Elementary, and Secondary Education*. U.S. Congress. Hearing on Improving Head Start for America's Children.
- UN Committee on the Rights of the Child (CRC), *CRC General Comment No. 7 (2005): Implementing Child Rights in Early Childhood*, 20 September 2006. CRC/C/GC/7/Rev.1. Online. UNHCR Refworld, available at: <http://www.unhcr.org/refworld/docid/460bc5a62.html>. Accessed February 27, 2009.
- Zimmerman, F. J, Christakis, D. A, & Meltzoff, A. N. (2007). Associations between media viewing and language development among children under 2 years old. *The Journal of Pediatrics*, 151, 364-368.

## VIII. Appendix A

---

### Methodology

---

#### *Sample selection and interviewing.*

A randomly-selected, geographically-balanced sample of 5,193 Arizona adults (18 and older) was surveyed. The sample included 3,690 parents/caregivers of children 5 and under (3,690 respondents) and 1,503 members of the general population who did not have children under six. The sample was drawn to ensure the generalizability of results to the adult Arizona population.

Computer Assisted Telephone Interviews (CATIs) were conducted during August and September, 2008. Respondents were selected randomly from sample lists, with random predictive dialing used to supplement the purchased lists. This strategy helps ensure that residents who are not yet listed in a directory (or who choose not to be listed) are still eligible for selection.

To include “cell phone” only households, the contractor manually dialed randomly-generated cell phone numbers (based on known cell phone exchanges). Cell phone contacts were given the option of completing their interview using their calling plan minutes or scheduling a call-back (on a land line or such a time when cell phone calling plan minutes were “free”).

The average length of a parent interview was 21 minutes; and the average general population interview lasted 7 minutes. Interviewers and respondents remained blind to the survey sponsor.

#### *Producing population estimates*

The final sample of parents participating in the FTF Family and Community Survey was not completely representative of the Arizona population of parents with children under six. To ensure representativeness and generalizability of the results, the post-stratification weights were calculated and applied to more accurately represent ethnicity, poverty/income, and family structure in the 31 FTF regional partnership council areas. SPSS® Complex Samples, which uses Taylor Series calculations for standard error estimation, was used to calculate weighted estimates which more accurately represent the diverse population in Arizona.

#### *Socio-economic status*

Based on the results of principal component factor analysis, a composite variable combining respondents' highest educational level and respondents' income was created to broadly classify participants' socioeconomic status. This variable was dichotomized so that the first quartile indicated 'low socioeconomic status' and the second through fourth quartiles indicated 'medium/high socioeconomic status (SES)'.

## IX. Appendix B

### Demographics of Estimated Population

#### Parents of children aged 0-5

	Estimated population of Family & Community Survey Responding Families	Arizona Population*
<b>Gender</b>		
Male	31%	50%
Female	69%	50%
<b>Race/Ethnicity</b>		
African-American/Black	3%	3%
Asian	<1%	2%
Hawaiian/Pacific Islander	<1%	<1%
Native American/American Indian	4%	4%
White/European/Anglo	64%	60%
Two or more races	1%	1%
Hispanic/Latino	18%	29%
Other	10%	<1%
<b>Marital Status</b>		
Married	79%	51%
Single	11%	30%
Divorced	7%	11%
Widowed	3%	7%
<b>Educational Attainment</b>		
Less than high school graduate	5%	17%
High school graduate	17%	27%
Technical/Vocational school	2%	***
Some college (includes Associates degree)	31%	30%
College graduate	28%	16%
Postgraduate	17%	9%
<b>Household Income</b>		
Less than \$25,000		23%
More than \$25,000		76%
Less than \$30,000	16%	
\$30,000 or more	73%	
Refused	11%	
<b>Ages of Children</b>		
Only children younger than 3	27%	
Only one child age 3 to 5	57%	

\*(from US Census American Community Survey 2007)

## Demographics by Socio-Economic Status

---

### Marital Status

	Low SES	Med/High SES
<b>Married</b>	52%	90%
<b>Single</b>	26%	4%
<b>Divorced/separated</b>	14%	4%
<b>Widowed</b>	7%	2%
<b>Refused</b>	1%	0%
<b>Total</b>	100%	100%

\*Chi-Square=741.7,  $p < .0001$

Age group		
	Low SES	Med/High SES
<b>19-29</b>	49%	20%
<b>30 to 49</b>	44%	76%
<b>50 to 64</b>	7%	3%
<b>Total</b>	100%	100%

\*Chi-Square=292.7,  $p < .0001$

### Currently have paid job

	Low SES	Med/High SES
<b>Yes</b>	48%	64%
<b>No</b>	52%	36%
<b>Total</b>	100%	100%

\*Chi-Square=62.5,  $p < .001$

Race/Ethnicity		
	Low SES	Med/High SES
<b>White/European/Anglo</b>	50%	68%
<b>Hispanic/Latino</b>	32%	13%
<b>African-American/Black</b>	3%	2%
<b>Asian</b>	%	1%
<b>Native American/American Indian</b>	12%	1%
<b>Hawaiian/Pacific Islander</b>	%	%
<b>Two or more races</b>	2%	1%
<b>Other</b>		14%
<b>Refused</b>	1%	%
<b>Total</b>	100%	100%

\*Chi-Square=471.6,  $p < .004$

Gender		
	Low SES	Med/High SES
<b>Male</b>	25%	36%
<b>Female</b>	75%	64%

\*Chi-Square=35.0,  $p < .025$



## X. Appendix C

### Parental Understanding of Early Childhood The Importance of Early Childhood: Early Experiences and Brain Development

*When can parents impact brain development?*

	National	Arizona
	All (%)	All (%)
Prenatal	28	31
Right from birth	46	47
First month	2	2
Two to six months	12	7
Seven to 11 months	1	4
One year or more	10	9
Not sure	1	>1

*At what age do infants' take in and react to surroundings?*

	National	Arizona
	All (%)	All (%)
Birth/first week	24	42
Two weeks to one month	11	9
Two months	9	6
Three to six months	34	24
Seven to 11 months	4	3
One year or more	15	15
Not sure	1	>1

*Capacity for learning is set from birth*

	National	Arizona		
	All (%)	All (%)	Low SES	Med/High SES*
Definitely False	68	77	67	82
Probably False	15	11	10	11
Probably True	7	4	9	3
Definitely True	9	7	14	4
Not Sure	1	1	1	1

*\*Significant difference between means, for levels of SES:  $F=83.7$ ,  $p<.0001$*

*Does first year impact later school performance?*

	National	Arizona
	All (%)	All (%)
First year has a major impact	77	76
First year has no impact	20	20
Not sure	3	4

## Emotional Development

*At what age can baby sense and react to parent's emotion?*

	National	Arizona
	All (%)	All (%)
First one to two months	45	56
Three to six month	18	17
Seven to 11 months	7	4
One year or older	31	23
Not Sure	0	1

## Language and Play

*Child's language benefits equally from TV or real person*

	National	Arizona
	All (%)	All (%)
Definitely False	43	52
Probably False	23	18
Probably True	18	12
Definitely True	15	17
Not Sure	1	1

*How important is play to a ...*

	National	Arizona		
	All (%)	All (%)	Low SES	Med/High SES
Five-year-old	89	90	84	92*
Three year-old	86	92	84	96**
10-month old	71	79	69	83***

*Shown: % that say playing crucial (8-10)*

*\* Significant difference between means, for levels of SES:  $F=5.3$ ,  $p<.021$*

*\*\* Significant difference between means, for levels of SES:  $F=37.5$ ,  $p<.0001$*

*\*\*\*Significant difference between means, for levels of SES:  $F=47.7$ ,  $p<.0001$*

*How much impact does play have on...*

	Arizona		
	All (%)	Low SES	Med/High SES
a child's social development	96	-	- *
a young child's intellectual development	93	87	95**
a young child's language development	87	-	- *

*Shown: % that say playing has large impact (8-10)*

*\*No significant difference between means for levels of SES*

*\*\*Significant difference between means for levels of SES:  $F=20.6$ ,  $p<.0001$*

## Developmentally appropriate child behavior

### *Turning the TV on and off*

	National	Arizona		
	All (%)	All (%)	Low SES	Med/High SES**
Child is doing this because she is angry at parents, and is trying to get back at them	38	23	33	20***
The child enjoys learning about what happens when buttons are pressed	94	94	-	..**
The child wants to get her parent's attention	n/a	86	-	..**

Shown: % saying this is very or somewhat likely

\*No significant difference for levels of SES

\*\*Chi-Square=21.3,  $p<.0001$

### *Age-appropriate behavior at 15 months-old*

	National	Arizona
	All (%)	All (%)
15 months -olds should NOT be expected to share	46	60
15 months -olds should be expected to share	53	40
Not sure	1	0

### *Age-appropriate behavior at 3 years-old*

	National	Arizona
	All (%)	All (%)
3-year-olds should NOT be expected to sit quietly for 1 hour	70	71
3-year-olds should be expected to sit quietly for 1 hour	28	26
Not sure	2	3

### *Spoiling - six-month-old*

	National	Arizona
	All (%)	All (%)
6-month-old too young to spoil	43	36
6-month-old NOT too young to spoil	56	62

### *Picking up a three-month old every time she cries is...*

	National	Arizona		
	All (%)	All (%)	Low SES	Mid/High SES
Appropriate	43	59	50	66
Will likely spoil the child	44	37	50	34

\*Chi-Square = 67.5,  $p<.003$

*Rocking a one year old to sleep*

	<b>National</b>	<b>Arizona</b>
	<b>All (%)</b>	<b>All (%)</b>
<b>Appropriate</b>	n/a	28
<b>Will likely spoil the child</b>	n/a	67

*Letting a 2-year-old get down from dinner table to play before the rest of the family has finished their meal...*

	<b>National</b>	<b>Arizona</b>
	<b>All (%)</b>	<b>All (%)</b>
<b>Appropriate</b>	48	55
<b>Will likely spoil the child</b>	45	40
<b>Not sure</b>	n/a	6

*Letting a 5-year-old choose what to wear to school every day*

	<b>National</b>	<b>Arizona</b>
	<b>All (%)</b>	<b>All (%)</b>
<b>Appropriate</b>	29	74
<b>Will likely spoil the child</b>	30	22
<b>Not sure</b>	n/a	4

## **XI. Appendix D**

---

### **Parent Perceptions of Early Childhood Services**

---

#### Communication & Collaboration

*Satisfaction with Collaboration*

	<b>Very dissatisfied</b>	<b>Somewhat dissatisfied</b>	<b>Somewhat satisfied</b>	<b>Very Satisfied</b>
<b>Arizona Parents</b>	15%	42%	26%	17%
<b>Early Childhood Partners</b>	15%	39%	38%	4%

### **Quality Support for Families**

---

*Quality of services*

	<b>Poor</b>			<b>Good</b>
<b>Arizona Parents</b>	12%	10%	39%	40%
<b>Early Childhood Partners</b>	5%	39%	44%	11%

## Information and Access

---

### *Quality of information*

	Poor			High
Arizona Parents	18%	22%	18%	43%
Early Childhood Partners	3%	34%	38%	24%

### *Convenient access to services*

	Poor access			Convenient access
Arizona Parents	5%	15%	41%	40%
Early Childhood Partners	12%	41%	36%	9%

## Family Focus

---

### *Family centered practice*

	Not Family-Centered			Family-Centered
Arizona Parents	14%	24%	18%	44%
Early Childhood Partners	7%	35%	38%	20%

### *Prevention and early intervention*

	Late intervention			Early intervention
Arizona Parents	17%	15%	24%	44%
Early Childhood Partners	18%	31%	38%	13%

## Services by SES

---

*Family centered practice: Available services fill some of my needs, but do not meet the needs of my whole family*

	Low SES	Med/High SES
Strongly Agree	24%	10%
Somewhat Agree	32%	20%
Somewhat Disagree	17%	17%
Strongly Disagree	27%	52%

Chi-Square = 86.0,  $p < .0001$

### *Early Intervention/Prevention Services*

	Low SES	Med/High SES
Strongly Agree	24%	13%
Somewhat Agree	17%	14%
Somewhat Disagree	22%	23%
Strongly Disagree	36%	51%

Chi-Square = 41.2,  $p < .007$



**Family and Community Survey on Early Childhood:**  
*A Baseline Report on Families and Coordination*

---

**4000 N. Central Avenue, Suite 800  
Phoenix, Arizona 85012**

**(602) 771-5045**

**[www.azfff.gov](http://www.azfff.gov)**