

December 2010

#### **BACKGROUND**

# **Insight Center for Community Economic Development**

The Insight Center for Community Economic Development is a national research, consulting, and legal organization dedicated to building economic health and opportunity in vulnerable communities. The Insight Center works in collaboration with foundations, nonprofits, educational institutions, and businesses to develop, strengthen, and promote programs and public policy that:

- Lead to good jobs—jobs that pay enough to support a family and offer benefits and the opportunity to advance;
- Strengthen Early Care & Education (ECE) systems so that children can thrive and parents can work or go to school; and
- Enable people and communities to build financial and educational assets.

The Insight Center's ECE program plays a leadership role in creating systems that provide every child with access to high-quality, affordable ECE.

The Insight Center was formerly known as the National Economic Development and Law Center.

## **Committee for Economic Development (CED)**

CED is a non-profit, non-partisan business led public policy organization. CED is dedicated to policy research on major economic and social issues and the implementation of its recommendations by the public and private sectors. Membership is made up of almost 200 senior corporate executives and university leaders who lead CED's research and outreach efforts. In 2009, CED teamed with the New Mexico Early Childhood Development Partnership to enlist business champions from across the state and arm them with research and analyses showing the substantial returns from investing in quality ECE.

# **New Mexico Early Childhood Development Partnership (NMECDP)**

The NMECDP is a public-private partnership whose mission is to create the public awareness and political will for early childhood education programs in New Mexico.

# **Acknowledgements**

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# THE ECONOMIC IMPACT OF EARLY CARE AND EDUCATION IN NEW MEXICO

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### **Introduction and Key Findings**

Generations ago, the way children were raised in New Mexico looked very different than it does today. Historically, mothers or the extended family took care of young children during the workday. Today, while parents remain children's first and most important teacher, the majority of New Mexico's parents rely on other adults to care for and educate children during part of the day. The result is a rapidly growing industry with businesses in every New Mexico community, providing a vital service that supports families' responsibility to raise their children. This report describes the economic effects that the early care and education (ECE) industry has on New Mexico.

The ECE industry contributes to New Mexico's economy in the following three main ways:

- ECE is a critical support for the current workforce. More than 68 percent of families with children ages birth through twelve in New Mexico rely on ECE of some form to work and/or attend school. Approximately eighteen percent of the labor force (over 161,000 workers) live in households with children under the age of thirteen and where all parents work. In total, these families earn almost \$4.9 billion annually in New Mexico (see Section 4 for more details).
- ECE is a major industry in New Mexico in its own right. Research presented in this report demonstrates, for the first time in the state of New Mexico, that ECE is a significant incomegenerating industry. The industry generates

#### Defining Early Care and Education (ECE)

This report uses the term "early care and education" (or ECE) to describe a range of programs that are outside the tradition K-12 educational system that provide care and education to children ages birth through age 12. This broad definition of ECE encompasses not only the child care and early education programs that serve infants, toddlers and young children before they enter school, but some licensed afterschool and out-of-school time programs that are used by school children through age 12. ECE programs include all licensed ECE settings (e.g. centers, homes and group homes) and some license-exempt settings (e.g. New Mexico State Pre-K and some Head Start programs operated under the auspices of public schools).

more annual gross receipts (\$421 million) and employs more people (11,936) than many other leading industries in New Mexico. In terms of receipts this is more than industries such as: performing arts, spectator sports, and related industries; credit unions; machinery manufacturing; outpatient care centers; and publishing industries. In terms of employment this is more than industries such as: Utilities; Mining, Oil & Gas Extraction; Real Estate (Rental and Leasing services); and Agriculture, Forestry, Fishing & Hunting.

ECE is linked to the rest of the local economy through a number of avenues, reflecting the fact that establishments purchase supplies from other businesses and the industry's employees spend their earnings in part on locally produced goods and services. A 2004 study of state child care multipliers demonstrates that indirect and induced effects for child care in New Mexico are significantly higher than in other states. More importantly, the study finds that in comparison to other industries, multipliers for child care are high. These high economic linkages support efforts to target economic development investments to the sector. If you apply output and employment multipliers to Insight Center's gross receipts and employment estimates,

<sup>&</sup>lt;sup>1</sup> B. F. Hinitz and V. C. Lascarides. *A History of Early Childhood Education*, NY: Routledge/Falmer Publishing, 2000.

<sup>&</sup>lt;sup>2</sup> Zhlin, L. Ribeiro, R. and Warner, M. (2004) "Child Care Multipliers: Analysis from Fifty States." Retreived December 13, 2010: http://government.cce.cornell.edu/doc/pdf/50States.pdf

you find that the ECE industry creates an additional \$416.7 million in induced and indirect output (revenue) and 7,496 indirect and induced jobs (see Section 3 for more details).

3. Quality ECE programs ensure a strong future workforce. Recent research on early brain development provides conclusive evidence that high-quality ECE for children from birth through age five is a critical foundation for future academic and workforce success. The quality of early education opportunities is linked to positive outcomes in school for children in all income brackets. Some studies have shown particularly striking findings in children from low-income families.<sup>3</sup> Three separate longitudinal studies of targeted, intensive intervention programs for low-income children have indicated significant and positive long-term outcomes in areas such as grade repetition and special education needs, higher educational attainment and home ownership in adulthood. Many of the outcomes reduce future public spending in such areas as K-12 education, criminal justice and welfare assistance (see Section 5 for more details).<sup>4</sup>

A recent evaluation of New Mexico's State Pre-K program, reveals that it is making a significant impact on school readiness, including increased:

- Vocabulary scores: Participants scored 5 raw score points higher than the control group or 24 percent of the standard deviation for the control group.
- Early math scores: Participants scored 2 raw score points higher than the control group or 37 percent of the standard deviation for the control group, and
- Early literacy: Gains in this area were 130 percent of the standard deviation for the control group.<sup>5</sup>

Despite the strong economic benefits ECE offers New Mexico, the industry struggles to meet the needs of children and families in the state. A review of ECE programs participating in *Looking for the STARs*, the state's quality rating and improvement system, reveals that more than two-thirds of center-based programs have low quality ratings (only 1 or 2 stars out of five).

#### **New Mexico's ECE Industry**

The majority of economic analyses in this report focus on New Mexico's formal ECE industry as defined below. The following programs that care for and educate children ages birth through twelve are included in this report:

- Licensed child care centers, including all licensed Head Start, Native American Head Start, Migrant Head Start and Early Head Start programs, and licensed New Mexico Pre-K programs regulated by the Children Youth and Families Department (CYFD).
- Licensed family child care homes (for up to 6 children) and group homes (for up to 12 children)
- Unlicensed registered family child care providers (for up to 4 children)

<sup>&</sup>lt;sup>3</sup> R.J. Coley. *An Uneven Start.* Educational Testing Service, Princeton, N.J., 2002. As cited in *Kids Can't Wait to Learn: Achieving Voluntary Preschool for All in California*, Preschool California, 2004.

<sup>&</sup>lt;sup>4</sup> Art Rolnick and Rob Grunewald. *Early Childhood Development: Economic Development with a High Public Return*. Fedgazette. Minneapolis, Minn., Federal Reserve Bank of Minneapolis, January 2003. Analysis was based on the High/Scope Perry Preschool Project in Michigan.

<sup>&</sup>lt;sup>5</sup> Hudstedt, J.T., Barnett, W.S., Jung, K. and Friedman, A.H. (November, 2010). *The New Mexico Pre-K Evaluation: Impacts from the Fourth Year (2008-2009) of New Mexico's State-Funded Pre-K Program.* Retrieved November 22, 2010. http://nieer.org/pdf/NewMexicoRDD1110.pdf

• License-exempt New Mexico State Pre-K and Head Start programs (those operated under the auspices of the Public Education Department)

#### Licensed Child Care Centers, Family Child Care Homes and Group Homes

A variety of ECE programs are licensed by the New Mexico Children, Youth and Families Department (CYFD). Center-based settings include most Head Start programs and licensed New Mexico State Pre-K programs funded by CYFD.

#### <u>Unlicensed Registered Family Child Care Homes</u>

Family child care homes caring for no more than four children at any one time are not required to be licensed in New Mexico, but they must register with Early Childhood Services, a division within the CYFD if they accept children receiving child care subsidy or receive funds through the child care food program.

# New Mexico State Pre-K Programs (regulated by the Public Education Department (PED) and Children, Youth & Families Department (CYFD))

New Mexico funds preschool programs throughout the state. Programs funded by CYFD are offered exclusively in ECE facilities that are licensed. Programs regulated by PED are offered in public schools, which are license-exempt.

#### Informal Providers Not Included in this Report

Unlicensed family child care homes serving up to four children who do not receive child care subsidy or participate in the child care food program are not included in this report. Furthermore, child care provided by family, friends, and neighbors (FFN), is not formally measured in New Mexico. In addition, babysitters and nannies are not included as part of New Mexico's formal system of ECE. Families with school age children frequently rely on license-exempt before and after school programs in public schools; however data for these programs was not available at the time of the report.

Although these informal care and education programs are widely used and add much to the economy, it is difficult to ascertain their impact because of a lack of collected data. Therefore, this report focuses primarily on formal ECE. By excluding informal care, this report's findings are conservative estimates of the total impact that ECE has on the economy.

#### **Outline of the Report**

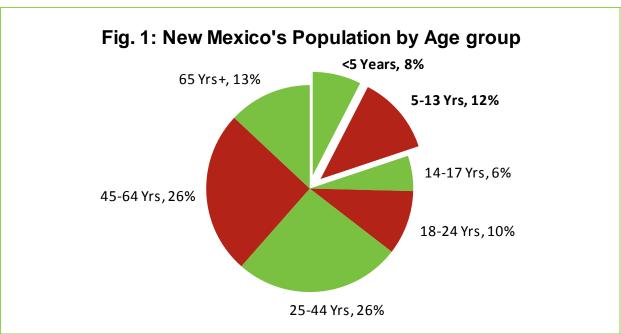
Following this introduction, section two profiles the state's demographics as it relates to the ECE industry. Section three explores the economic effects that ECE has on the current economy by generating jobs and revenue. Section four explores the short-term economic benefits ECE provides the state by enabling parents to work and update their skills. Section five analyzes the long-term economic benefits that high-quality ECE programs create. Lastly, section six highlights recommendations and considers future implications for New Mexico's economy.

<sup>&</sup>lt;sup>6</sup> M. Brown-Lyons, A. Robertson and J. Layzer. *Kith and Kin—Informal Child Care: Highlights From Recent Research*, National Center for Children in Poverty, New York, 2001.

# **Demographic Profile of Early Care Education**

#### **Population Size and Characteristics**

A significant proportion of New Mexico's population is children. Just over 150,000<sup>7</sup> of the state's total population of approximately two million are less than 5 years old, while almost 250,000 state residents are between the ages of five and thirteen. Together these two age groups represent twenty percent of the state population, which is slightly higher than the national average (19%). Population projections reveal that the proportion of children aged 0-13 will remain fairly consistent at just under 20% in 2020.



Source: Census 2009 Population Estimates

#### **Racial Composition of New Mexico**

New Mexico is a very diverse state. According to the Census Bureau,<sup>8</sup> the proportion of different (single) races in the state are: White – 70%; Black - 2.2%; American Indian or Alaskan Native - 9.3%; Asian - 1.4%; Native Hawaiian or Pacific Islander - 0.1%, and 14% of some other race.<sup>9</sup> The ACS classifies the Hispanic or Latino population separately, because of overlaps with other racial classifications, particularly the White classification. The proportion of Hispanic or Latino population (of any race), at almost 45%, is the highest of any state in the country. In addition the proportion of American Indians in the state is particularly high, and compares to a national average of 0.1%. This racial diversity underlines the need for the state to provide culturally sensitive ECE programs.

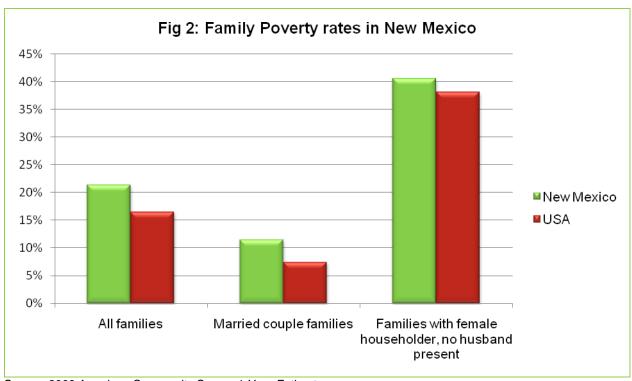
<sup>&</sup>lt;sup>7</sup> Estimates of the Resident Population by Selected Age Groups for the United States, States, and Puerto Rico: July 1, 2009 (SC-EST2009-01), U.S. Census Bureau, Population Division

<sup>&</sup>lt;sup>8</sup> U.S. Census Bureau, American Community Survey Demographic and Housing Estimates: 2005-2009

<sup>&</sup>lt;sup>9</sup> Approximately 3% of the population are from two or more races.

#### **Poverty**

As shown in figure 2, household poverty rates<sup>10</sup> in New Mexico are significantly higher than for the nation as a whole. The poverty rate was higher for all family types with children under 18 in the state, and is particularly high for married couples with children relative to the national average. Research on how the brain develops demonstrates that early exposure to situations that produce fear and chronic anxiety can have long-term consequences for learning, behavior, and health, by disrupting infant brain development.<sup>11</sup> Given the high proportion of low-income children in the region, the need for high-quality ECE programs becomes a necessity, so that disadvantaged children who face fear and chronic anxiety early in their lives can enter kindergarten ready to succeed in school and in life.



Source: 2009 American Community Survey 1-Year Estimates

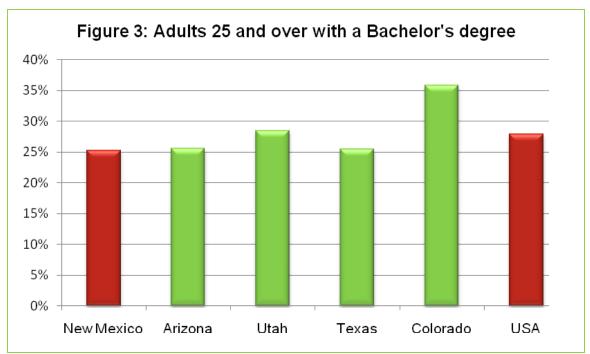
#### **Educational attainment**

In terms of those achieving bachelor degrees and higher, New Mexico has a lower educational attainment than its neighboring states. <sup>12</sup> In some cases, particularly Colorado, this difference is particularly marked. **It will be hard for New Mexico to diversify its economy without improving the levels of skills and education of its workforce.** States like Colorado are particularly attractive to firms wishing to move or expand due to its highly skilled local labor force. High quality ECE is the base of a well designed and comprehensive education system. In addition, young and highly educated workers from outside the state may be attracted by a high quality ECE system.

<sup>&</sup>lt;sup>10</sup> Poverty Status in the Past 12 Months of Families, American Community Survey 2009, 1 year estimates

<sup>&</sup>lt;sup>11</sup> Haskins, R. (2010) "Impact of Early Childhood Experience on Brain Development (Transcript of a Brookings Institution Event)." Retrieved April 28, 2010. http://www.brookings.edu/events/2010/0413\_brain\_development.

<sup>&</sup>lt;sup>12</sup> Selected Social Characteristics in the United States, 2005-2009 American Community Survey 5-Year Estimates



Source: U.S. Census Bureau American Community Survey (2008)

#### Characteristics of Households with Children

Single parent families are more reliant on affordable ECE for work than dual working parent families who may be able to alter their work schedules to reduce reliance on ECE. New Mexico's households (with children) are more likely to be headed by a single parent than is true for the country as a whole. In New Mexico, 39% of these households are headed by a single parent with children compared to 32% nationally.

Focusing on households with children up to five years old, 61% have all parents within them working or seeking work<sup>14</sup> (both parents in a two parent household, or one parent in a one parent household), this compares to 63% for the country as a whole. The corresponding figure for 6-17 year olds is 69%. This data underlines the need for parents in the state to seek ECE as they enter and continue in the workforce.

#### **Labor Force Characteristics and Trends**

New Mexico's labor force averaged just under one million<sup>15</sup> in 2008, which represents a participation rate of 64%, the eleventh lowest rate in the country. This is a disturbing statistic that signals that the state's labor force is not being fully utilized and is a strong indicator of economic underperformance. Since 2008, New Mexico has lost a considerable number of jobs with unemployment nearly doubling (see the following section for more details). As the economy rebounds, affordable, quality, accessible ECE programs will be necessary to ensure that all parents who want to work outside the home are able to do so, and thereby allowing local employers to meet market demand and grow their organizations.

<sup>&</sup>lt;sup>13</sup> 2008 American Community Survey (ACS) 1-Year Estimates

<sup>14</sup> ACS 2006-2008 Estimates

<sup>&</sup>lt;sup>15</sup> New Mexico Annual Social And Economic Indicators, New Mexico Department Of Workforce Solutions, Bureau Of Economic Research And Analysis, 2010

Since 2008, the economy has deteriorated. The state's unemployment rate rose from 4.7% to 8.3% between December 2008 and December 2009. 16 Only ten states have seen their unemployment rate rise faster during this time period. By August 2010 the rate was 8.4% and appears to have peaked, after staying at or above 8.7% through much of 2010. However, even though the rates increased rapidly they are still below the national average, suggesting continued need for ECE in the future when the economy starts to improve.

#### **ECE Programs and the Family Budget**

For families in most income brackets, ECE is a significant expense and takes up a sizeable portion of the family budget. The annual full-time rate for center-based ECE for an infant is \$7,672 in urban counties and \$6,121 in rural counties, according to the most recent market rate study by the New Mexico Children, Youth and Families Department undertaken in 2009.<sup>17</sup> The average full-time annual rate of ECE for a pre-school child in a center in New Mexico is nearly \$5,400 in rural counties and nearly \$6,700 in urban counties.

New Mexico's median family income for married couples with children is just over \$66,000,<sup>18</sup> which indicates that costs for center-based ECE for two children (one infant and one preschool) take up almost 22 percent of the total family budget in urban counties and over 17 percent in rural counties. The burden is higher still for single-parent families, who have a lower median income than other family types. The median income for single mothers with at least one child, is less than \$22,000, or one-third that of married two-parent families with children. There are 61,200 families in New Mexico led by single mothers, with a further 21,400 single parent families in the state that are led by the father. This provides strong evidence of the demand for ECE among single parent families alone.

While many families are eligible for assistance, limited program funds leave a large number of them on waiting lists for these programs. And in May 2010 the budget for state child care assistance was cut by \$1.9 million, which means that an estimated 496 children are likely to lose child care subsidy.<sup>19.</sup>

#### **Summary**

Developing economic and social conditions – population shifts, industry trends, and employment shifts – necessitate continued focus on high quality ECE programs.

<sup>&</sup>lt;sup>16</sup> Bureau of Labor Statistics, Retrieved 15 December, 2010

<sup>&</sup>lt;sup>17</sup> Market Rate Survey 2010, New Mexico Children, Youth & Families Department

<sup>&</sup>lt;sup>18</sup> Data in this paragraph from: U.S. Census Bureau. (2010). 2008 American Community Survey. Retrieved November 23, 2010: http://www.census.gov/acs/www/

<sup>&</sup>lt;sup>19</sup> New Mexico Children, Youth and Families Department. Personal communication, December 13, 2010.

#### **Economic Profile of ECE**

#### A Profile of the ECE Industry

According to research collected by the Insight Center from state agencies, the ECE sector comprises 5,901 programs, which collectively have the capacity to serve a total of 85,061 children ages birth through twelve at any one time (see Table One on page 10). This includes the collective capacity to serve an estimated 72,561 children ages birth through five at any one time.

#### **Estimating Gross Receipts and Direct Employment**

The ECE industry is not adequately defined by the US Census Bureau, the Department of Labor and other agencies responsible for collecting economic data. Therefore, its full economic impact in terms of gross receipts and direct employment is not properly determined and alternate methodologies for collecting data are necessary.<sup>20</sup> To more accurately assess the economic characteristics of New Mexico's ECE industry, the Insight Center uses comprehensive data about ECE from agencies charged with overseeing or collecting information about parts of the larger industry. We greatly appreciate the support of the New Mexico Children, Youth and Families Department, in gathering this information. Please refer to Appendix A for detailed methodology for gross receipts and direct employment estimates.

The industry for the purposes of this report and the following estimates includes:

- Licensed child care centers, including all licensed Head Start, Native American Head Start, Migrant Head Start and Early Head Start programs and licensed New Mexico Pre-K programs regulated by the Children Youth and Families Department (CYFD).
- Licensed family child care homes (for up to 6 children) and group homes (for up to 12 children)
- Unlicensed registered family child care providers (for up to 4 children)
- License-exempt New Mexico State Pre-K and Head Start programs (those operated under the auspices of the Public Education Department).

The estimates of gross receipts and direct employment represent a "snapshot" of the ECE industry taken at a particular time. They also do not reflect the economic contribution of license-exempt providers who are not registered with the CYFD. As such, the industry as a whole has a larger economic impact within New Mexico than the current data sources are able to demonstrate.

Gross receipts measure the size of an industry, with size defined as the value of goods and services produced by that industry in a given year. In the ECE industry, gross receipts are equal to the total dollars that are spent in the state in the form of payments for care and education. These payments include fees paid by parents as well as public investments to cover tuition costs.

Based on the methodology described in detail in Appendix A, Insight Center calculates that the gross receipts for the ECE industry in New Mexico equal \$421 million. See Table 1 for a breakout of gross receipts by provider type, and Figure four on page 11 for comparisons to other industries.

<sup>&</sup>lt;sup>20</sup> Warner, M. (2006) "Putting Child Care in the Regional Economy: Empirical and Conceptual Challenges and Economic Development Prospects." *Journal of Community Development and Society.* 37, 2. Retrieved December 13, 2010: http://economicdevelopmentandchildcare.org/documents/special\_journal\_issues/jcds/warner.pdf

Direct employment is an estimate of the total number of jobs in the ECE industry. These include all ECE teachers and caregivers, as well as support staff (e.g. center director, janitors, etc.). Utilizing the methodology described in detail in Appendix A, Insight Center estimates that total direct employment in New Mexico equals 11,936 (see Table 1 for a breakout of by program type and Figure five on page 11 for comparisons to other industries).

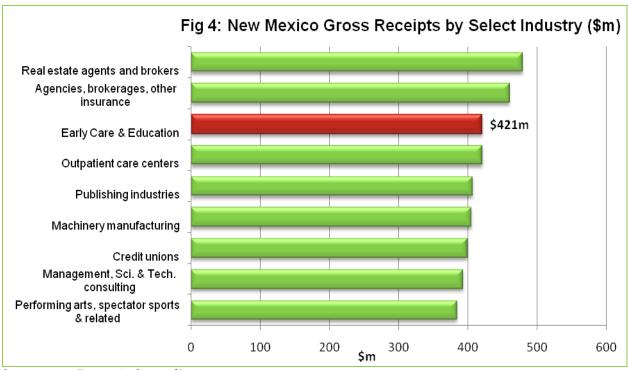
Table 1. Gross Receipts and Direct Employment Estimates, by Program, New Mexico, 2009

| Type of<br>Care  | #<br>Programs | Capacity | Estimated<br>Full Time<br>Equivalent<br>Enrollment | Avg. Monthly Rate<br>Urban<br>(Full-Time)   | Avg.<br>Monthly<br>Rate Rural<br>(Full-Time) | Gross<br>Receipts         | Direct<br>Employm<br>ent |
|--|---------------|----------|--|---|--|---------------------------|--------------------------|
| Licensed   |               |          |  | Infant: \$580.13                            | \$472.43                                     |                           |                          |
| family   |               |          |  | Toddler:\$ 523.96                           | \$469.42                                     |                           |                          |
| child care   | 450           | 007      | 070  | Preschool: \$507.28                         | \$438.84                                     | <b>0.4.0</b> 'III'        | 450                      |
| homes  | 159           | 967      | 670  | School age: \$476.54                        | \$433.79                                     | \$4.0 million             | 159                      |
| Licensed   |               |          |  | Infant: \$562.30                            | \$410.90                                     |                           |                          |
| Licensed   |               |          |  | Toddler:\$ 519.85                           | \$400.43                                     |                           |                          |
| group<br>homes   | 189           | 2,251    | 1.548  | Preschool: \$505.41<br>School Age:\$ 464.60 | \$392.04<br>\$379.26                         | \$8.4 million             | 378                      |
| Licensed   | 109           | 2,231    | 1,040  | Infant: \$639.41                            | \$579.26<br>\$510.14                         | φο. <del>4</del> ΠΙΙΙΙΙΟΠ | 3/0                      |
| Centers  |               |          |  | Toddler:\$574.71                            | \$460.59                                     |                           |                          |
| (excluding   |               |          |  | Preschool: \$557.18                         | \$447.99                                     |                           |                          |
| Head Start   |               |          |  | School Age:\$490.87                         | \$420.24                                     |                           |                          |
| Programs)  | 572           | 41,824   | 31,524   | σοποσι / (gσ.φ 1σσ.σ/                       | Ψ120.21                                      | \$200.5 million           | 4,249                    |
| Unlicensed   | -             | ,-       | , -  |   |  | *                         | , -                      |
| Registered   |               |          |  | Infant: \$639.41                            | \$510.14                                     |                           |                          |
| Family   |               |          |  | Toddler:\$574.71                            | \$460.59                                     |                           |                          |
| Child Care   |               |          |  | Preschool: \$557.18                         | \$447.99                                     |                           |                          |
| Homes  | 4,739         | 28,431   | 14,215   | School Age:\$ 490.87                        | \$420.24                                     | \$75.8 million            | 4,739                    |
| Head Start Programs (includes Native American, Migrant and Early |               |          |  | \$1,200/yr (Early H                         | ead Start)                                   |                           |                          |
| Head Start)  | 181           | 9,144    | 9,144  | \$5,700/yr (Head                            | d Start)                                     | \$94.3 million            | 2,188                    |
| PED State  |               |          |  |   |  |                           |                          |
| Pre-K  | 61            | 2,444    | 2,444  | N/A   |  | \$7.9 million             | 223                      |
| Child Care<br>Food<br>Program                                    |               |          |  |   |  | \$30 million              |                          |
|  |               |          |  |   |  |                           |                          |
| TOTAL  | 5,901         | 85,061   | 59,545   | N/A   |  | \$421 million             | 11,936                   |

#### Comparisons of the Size of the ECE Industry to Other State Industries

Figure four shows just how New Mexico's ECE industry measures up to other significant local industries in the state in terms of gross receipts. The figure shows that ECE, as an industry, is larger than the following industries: Performing Arts, Spectator Sports, and Related Industries; Credit Unions; Publishing Industries; Management, Scientific, and Technical Consulting Services; Machinery Manufacturing; and Outpatient Care Centers, among others. And the ECE industry is within the range of such important local industries as:

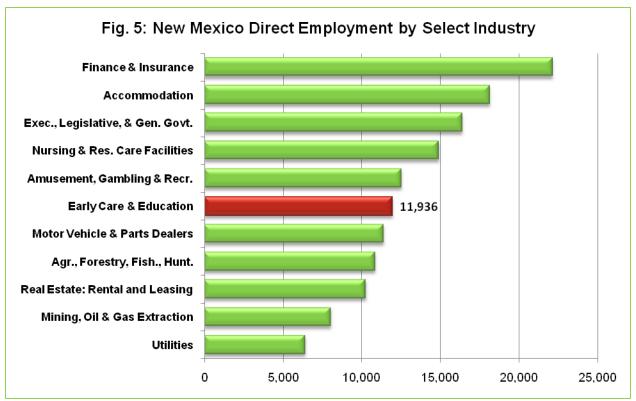
Agencies, Brokerages, and other Insurance related activities; and services offered by real estate agents and brokers. These findings demonstrate the economic strength and importance of ECE in New Mexico.



Source: 2007 Economic Census<sup>21</sup>

As Figure five demonstrates, the ECE industry is even larger when its size is measured by the direct employment it generates, rather than by its gross receipts. This is due to the labor intensive nature of the industry. Figure five indicates that the industry employs almost double the number of people in the utilities sector, and also more people than in: Mining, Oil & Gas Extraction; Agriculture, Forestry, Fishing & Hunting; and Real Estate Rental & Leasing services, among others. It also employs a similar number of people as those employed in Amusement, Gambling & Recreation industries, and around three-quarters of the workforce involved in both the Nursing and Residential Care Facilities sector, and Executive, Legislative & General Government. Finally, ECE total direct employment is over half the number employed in the entire Finance & Insurance industry in the state.

<sup>&</sup>lt;sup>21</sup> Although receipts are sourced from the 2007 Economic Census, a neutral projection is assumed in light of the economic recession



Source: New Mexico Department of Workforce Solutions<sup>22</sup>

#### Indirect and Induced Effects of the ECE industry

Above, we estimated the direct impacts of the industry in terms of gross receipts and employment generated. ECE is linked to the rest of the local economy through a number of avenues, reflecting the fact that establishments purchase supplies from other businesses and the industry's employees spend their earnings in part on locally produced goods and services. To summarize, there are three types of economic impacts:

- Direct impacts: Impacts introduced into the county's economy as a result of spending on ECE (e.g. money spent by parents directly to child care providers).
- Indirect impacts: Impacts reflecting spending by the ECE industry (e.g. money spent on construction for facilities upgrades).
- Induced impacts: Impacts on household spending by the ECE workforce. These effects reflect changes in the county's economy caused by increases or decreases in spending patterns as a result of the direct and indirect activity (e.g. money spent in local stores by those employed within the ECE industry).

A 2004 study of state child care multipliers demonstrates that indirect and induced effects for child care in New Mexico are higher than in other states.<sup>23</sup> For example, New Mexico's Total Type II multiplier for output effects is 1.99, which ranks it in the top ten states nationwide. Applying this multiplier to the gross receipts

<sup>&</sup>lt;sup>22</sup> New Mexico Department of Workforce Solutions, Quarterly Census of Employment and Wages, (4<sup>th</sup> quarter, 2009), http://www.dws.state.nm.us/LMI/pdf/QCEW-09-4.pdf, Retrieved November 29th

<sup>&</sup>lt;sup>23</sup> Zhlin, L. Ribeiro, R. and Warner, M. (2004) "Child Care Multipliers: Analysis from Fifty States." Retreived December 13, 2010: http://government.cce.cornell.edu/doc/pdf/50States.pdf

total of \$421 million, means that the ECE industry creates an additional \$416.7 million in indirect and induced output to the state's economy.

New Mexico's total Type II multiplier for employment effects is 1.61, which is the second highest in the nation. Applying this multiplier to the Insight Center's full-time equivalent employment estimate of 11,936 yields an additional 7,281 in indirect and induced jobs.

In addition to having higher multipliers than other states, the national study also demonstrates that multipliers for the ECE sector are higher than other industries. These high economic linkages support efforts to target economic development investments to the sector.<sup>24</sup>

#### **Summary**

This section demonstrates that New Mexico's ECE industry contributes to the state's economy by generating \$421 million in revenue and 11,936 in direct employment. The industry employs more people than agriculture, or mining, oil, and gas extraction; and is on par with the amusement, gambling and recreation industry. The substantial size of the ECE industry means that it not only supports the economy by allowing parents to work outside the home and preparing children for future academic success, but also contributes to the economy's vitality by employing significant numbers of workers, generating gross receipts, and purchasing goods and services from many other industry sectors.

# **Economic Output of Working Families**

This section describes the role that ECE plays in supporting the current workforce and driving labor force productivity.

By creating opportunities for labor force participation and promoting career development, the ECE industry plays a vital role in supporting New Mexico's overall economy. Through its support of the workforce, the ECE industry increases profitability among local businesses. The availability of ECE promotes a healthy bottom line by driving productivity, decreasing turnover and absenteeism, and increasing the pool of potential new employees. This section presents a variety of cost-effective ECE strategies for employers.

#### **ECE Sustains Labor Force Participation**

More than 68 percent<sup>25</sup> of children under thirteen in New Mexico live in families where all parents work. In particular, an average of 61 percent of children ages zero through five, live in households where all parents participate in the workforce, this figure is significantly higher for older children. These statistics include single parents who work, as well as dual parent families where both parents participate in the labor force. However, these numbers do not account for parents who are in school.

A shortage of affordable and high-quality ECE arrangements may inhibit labor force participation and the ability of low-income parents to attend postsecondary education or training. For example, the vast majority of studies of child care subsidies produced in the period since welfare reform legislation was enacted find a strong positive correlation between the receipt of child care subsidies and work outcomes for low-income families. The positive outcomes that have been documented include: increased likelihood of employment, increased duration of employment, higher earnings, and a faster transition from welfare to substantial employment.<sup>26272829303132</sup>

In addition, policies that enable parents (especially those with limited incomes) to pursue higher education benefit the economy. Research demonstrates that student parents who use on-campus ECE:

- Have higher grade point averages
- Are more likely to remain in school and graduate in fewer years

<sup>&</sup>lt;sup>25</sup> American Community Survey, 3 year Estimates, 2006-2008

<sup>&</sup>lt;sup>26</sup> Ananat, E. O., & Phinney, R. (2004). "Child Care as a Barrier to Employment." Ann Arbor, MI, University of Michigan Program on Poverty and Social Welfare Policy. Retrieved July 20, 2009. http://www.childcareresearch.org/location/ccrca7834

<sup>&</sup>lt;sup>27</sup> Blau, D. M. (2008). "The Determinants and Consequences of Child Care Subsidies for Single Mothers in the USA." *Journal of Population Economics*, 20, 4. Retrieved July 20, 2009. http://www.springerlink.com/content/p607m616150105t1/.

<sup>&</sup>lt;sup>28</sup> Brooks, F. (2002). "Impacts of Child Care Subsidies on Family and Child Well-Being." *Early Childhood Research Quarterly*, 17, 4, 498-511.

<sup>&</sup>lt;sup>29</sup> Cochi Ficano, C. K. (2006). "Child Care Subsidies and Employment Behavior Among Very Low-Income Populations in Three States." *Review of Policy Research*, 23, 3, 681-698.

<sup>&</sup>lt;sup>30</sup> Greenberg, M., Ewen, D., & Matthews, H. (2006) "Using TANF for Early Childhood Programs." Washington, D.C., Center for Law and Social Policy. Retrieved June 3, 2009. http://www.clasp.org/publications/tanf\_early\_childhood.pdf

<sup>&</sup>lt;sup>31</sup> Meyers, M., Heintze, T., & Wolf, D. (2002a) "Child Care Subsidies and the Employment of Welfare Recipients." *Demography*. 39.1, 165-179.

<sup>&</sup>lt;sup>32</sup> Lee, B. George, R., Reidy, M., Kreader, J.L., Georges, A., Wagmiller, R., Stavely, J., Stevens, D. & Witte, A.D. (2004). "Child Care Subsidy Use and Employment Outcomes of TANF Mothers During the Early Years of Welfare Reform: A Three State Study." Chapin Hall Center for Children at the University of Chicago. Retrieved July 20, 2009. http://www.chapinhall.org/sites/default/files/old\_reports/328.pdf.

 Have higher graduation rates than student parents who do not have access to affordable and highquality ECE programs<sup>33</sup>

Similarly, student parents indicate that the availability of ECE is critical to their decision to enroll in college.<sup>34</sup>

#### **Economic Output of Working Families**

Working families make up a noticeable share of the total labor force at any one time. Over 18 percent of the labor force (or nearly 161,236 workers) live in households with children under the age of thirteen and where all parents work.<sup>35</sup> In total, these families earn almost \$4.9 billion annually in New Mexico.<sup>36</sup>

Not all families use formal ECE. Some may arrange work schedules so that one parent is home with children.

Others may place children in informal care. For parents who must use ECE services, investing in the state's ECE infrastructure not only gives these parents affordable, high-quality options but, as described in more detail in the following section, also makes a significant investment in our future workforce.

Working parents with young children collectively earn \$4.9 billion annually in New Mexico.

#### **Summary**

The ECE industry plays a vital role in supporting New Mexico's overall economy by creating opportunities for labor force participation and enabling parents to update their skills.

<sup>&</sup>lt;sup>33</sup> The National Coalition for Campus Children's Centers (1999). *Impact of Campus-based Child Care on Academic Success, Student Parents at SUNY Community Colleges, 1989* and *Child Development Center Participant Analyses, Bronx (New York City) Community College, 1994*. As cited by The National Coalition for Campus Children's Centers in their policy brief: *Campus Child Care Bill: Child Care Means Parents in School Act, S1151 and H.R. 3936*.

<sup>&</sup>lt;sup>34</sup> National Coalition for Campus Children's Center. (1999). Policy Brief entitled *Campus Child Care Bill: Child Care Access Means Parents in School Act, S1151 and H.R.* 3936.

<sup>&</sup>lt;sup>35</sup> This number was developed by Insight Center using data from the 2008 American Community Survey on children, families and income.

<sup>&</sup>lt;sup>36</sup> This number was developed by Insight Center using data from the 2008 American Community Survey on children, income.

# **Preparing New Mexico's Future Workforce**

In addition to strengthening the current workforce, ECE is an essential component of the education system that cultivates the future workforce and offers a significant public financial return.

Quality ECE lays the foundation for strong academic performance, social skills, and discipline—key elements for continued success. Recent research points to significant gains to New Mexico's K-12 system by better preparing children to start school.

#### Preparing the Future Workforce for Success in School and Life

Long-term data on child outcomes from participants in quality ECE programs in New Mexico are only available for New Mexico's State Pre-K program. New Mexico currently invests approximately \$15.2 million in state funds for its Pre-K program. Recent research on the New Mexico Pre-K initiative suggests that the program is having an impact on participants and may provide a long-term rate of public return similar to the model programs discussed in this section. Since 2005, the New Mexico Pre-K Initiatives have participated in a rigorous evaluation of participants entering kindergarten. The study finds that Pre-K participation is attributable to improved school readiness, including increased:

- Vocabulary scores: Participants scored 5 raw score points higher than the control group or 24
  percent of the standard deviation for the control group.
- Early math scores: Participants scored 2 raw score points higher than the control group or 37 percent of the standard deviation for the control group
- Early literacy: Gains in this area were 130 percent of the standard deviation for the control group.<sup>38</sup>

A number of large surveys and long-term studies have also consistently found that high-quality ECE programs are beneficial to young children's growth and cognitive development, and contribute to their success later in life. Quality programs increase children's ability to enter traditional K-12 schooling ready to continue learning, and school readiness prepares children for success.

For example, a national survey found that in comparison to peers in lower-quality ECE settings, young children who attend higher-quality and more stable ECE programs had the following characteristics through elementary school:

- Improved math and language ability
- Enhanced cognitive and social skills
- Fewer behavioral issues<sup>39</sup>

<sup>&</sup>lt;sup>37</sup> After solvency and TANF reductions. The source is personal communication from New Mexico Children Youth & Families Department, ECS Division

<sup>&</sup>lt;sup>38</sup> Hudstedt, J.T., Barnett, W.S., Jung, K. and Friedman, A.H. (November, 2010). *The New Mexico Pre-K Evaluation: Impacts from the Fourth Year (2008-2009) of New Mexico's State-Funded Pre-K Program.* Retrieved November 22, 2010. http://nieer.org/pdf/NewMexicoRDD1110.pdf

<sup>&</sup>lt;sup>39</sup> Peisner-Feinberg, E. S. et al. (2001). The Relation of Preschool Child-Care Quality to Children's Cognitive and Social Development Trajectories through Second Grade. *Child Development*. 72 (5): 1534-1553. Quality was assessed in this study using the following criteria: classroom quality measures using the Early Childhood Environment Rating Scale (ECERS), teacher sensitivity using the Caregiver Interaction Scale (CIS), child-centered teaching style using Early Childhood Observation Form (ECOF), teacher responsiveness using Adult Involvement Scale (AIS). In addition, teacher-child relationship and child assessment measures were used.

The National Academy of Sciences brought together a committee of experts to synthesize research on early childhood development. They agreed that "the effects of child care derive not from its use or nonuse but from the quality of the experiences it provides to young children."<sup>40</sup>

While no ECE program can guarantee lifelong success for its participants, quality ECE can increase children's ability to enter traditional K-12 schooling ready to continue learning, which better prepares them for future opportunities. Although more research is needed to fully understand the current quality of ECE programs, several national studies suggest that that existing quality levels are, on average mediocre. Although more research is needed to fully understand the current quality of ECE programs, several national studies suggest that that existing quality levels are, on average mediocre. Although guality reads are, on average mediocre. Although guality ended are, and average mediocre. Although guality ended are average mediocre. Although guality ended are, and average mediocre. Although guali

#### **High Quality ECE's Significant Public Return**

According to Ben Bernanke, Chairman of the Federal Reserve Board, "Although education and the acquisition of skills is a lifelong process, starting early in life is crucial. Recent research has documented the high returns that early childhood programs can pay in terms of subsequent educational attainment and in lower rates of social problems, such as teenage pregnancy and welfare dependency." 49

Nobel-Laureate economist James Heckman is another prominent proponent of the economic rationale for targeting high-quality ECE programs to disadvantaged families. Heckman cites research demonstrating that early interventions can prevent disparities in cognitive and social-emotional skills that are far less costly than the use of programs to remediate such gaps later in life.<sup>50</sup>

<sup>&</sup>lt;sup>40</sup> Shonkoff, J. and Phillips, D.A., Eds. (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, D.C.: National Academies Press, 307.

<sup>&</sup>lt;sup>41</sup> Brooks-Gunn, J. (2003). Do You Believe in Magic? What We Can Expect from Early Childhood Intervention Programs. *Social Policy Report.* 17 (1).

<sup>&</sup>lt;sup>42</sup> National Institute of Child Health and Human Development Early Child Care Research Network. (2003) "NICHD Study of Early Child Care and Youth Development." Paper presented at the University of Maryland, College Park, MD.

<sup>&</sup>lt;sup>43</sup> National Institute of Child Health and Human Development Early Child Care Research Network. (2004) "Type of child care and children's development at 54 months." *Early Childhood Research Quarterly*, 19, 203-230.

<sup>&</sup>lt;sup>44</sup> Peisner-Feinberg, E.S. et al. (1999). *The Children of Cost, Quality and Outcomes Study Go to School.* Retrieved April 21, 2010. www.fpg.unc.edu/ncedl/PDFs/CQO-es.pdf

<sup>&</sup>lt;sup>45</sup> Loeb, S., Fuller, B., Kagan, S.L., Carroll, B. (2004). "Child Care in Poor Communities: Early Learning Effects of Type, Quality, and Stability." *Child Development*, 75, 1, 47-65.

<sup>&</sup>lt;sup>46</sup> Head Start program serve very few children with child care subsidies and the financial incentives for the program are tied to the number of children with subsidies that you serve.

<sup>&</sup>lt;sup>47</sup> In 2010, New Mexico revised child care licensing regulations. 2-STAR criteria has now been embedded into the regulations instead of 1-STAR criteria. As a result, experts anticipate that most programs will meet 2-Star standards by the end of 2011.

 <sup>&</sup>lt;sup>48</sup> New Mexico Children, Youth and Families Department, Early Childhood Services Division. (2009).
 <sup>49</sup> Bernanke, B. (2007). *The Level and Distribution of Economic Well-Being*. Speech before the Greater Omaha Chamber of Commerce on February 6, 2007. Retrieved from

http://www.federalreserve.gov/BoardDocs/Speeches/2007/20070206/default.htm

<sup>&</sup>lt;sup>50</sup> Heckman, J. and Masterov, D. (2004) "The Productivity Argument for Investing in Young Children." *Invest in Kids Working Group*. Working Paper #5. Retrieved October 2, 2009.

http://www.partnershipforsuccess.org/docs/ivk/report\_ivk\_heckman\_2004.pdf

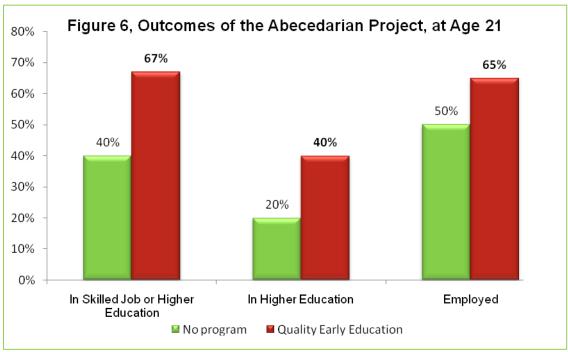
A 2006 study compiles cost-benefit analyses from three independent studies of model preschool and ECE programs that have followed children from program participation into adulthood. All three studies demonstrate net positive benefits due to increased academic achievement and other outcomes (see Table 2 for more details).<sup>51</sup>

Table 2: Outcomes and Cost-Benefit Analyses of the Perry Preschool, Carolina Abecedarian and Chicago

|  | Perry Preschool | Carolina<br>Abecedarian | Chicago Child-Parent<br>Center |
|--|-----------------|-------------------------|--------------------------------|
| Benefit-Cost Results                           |                 |                         |                                |
| Cost   | \$15,166        | \$36,929 (5 years)      | \$7,417                        |
| Benefit  | \$244,812       | \$139,571               | \$52,936                       |
| Benefit/Cost Ratio (benefit from \$1 invested) | \$16.14         | \$3.78                  | \$7.14                         |

Sources: Information from this table is derived from a table in Barnett and Ackerman (2006)52

In the Abecedarian Study, investigators found that children who participated in the early intervention program were, at age 21, significantly more likely to be in a high-skilled job or in higher education than the control group (see Figure 6 below).<sup>53</sup>



Source: The Frank Porter Graham Child Development Institute

<sup>&</sup>lt;sup>51</sup> Barnett, W.S. & Ackerman, D.J. (2006). "Costs, Benefits and Long-term Effects of ECE Programs: Recommendations and Cautions for Community Developers." *Journal of Community Development and Society*, 37, 2. Retrieved October 15. http://government.cce.cornell.edu/doc/pdf/86-100%20barnett%20ackerman.pdf.

<sup>&</sup>lt;sup>52</sup> Benefit-cost information for Perry Preschool was updated based on cost-benefit information Retrieved November 20, 2009 from: http://www.highscope.org/file/Research/PerryProject/Errata\_3Final.pdf

<sup>&</sup>lt;sup>53</sup> See The Frank Porter Graham Child Development Institute at the University of New Mexico at Chapel Hill, *Early Learning, Later Success: The Abecedarian Study*. Available online at http://www.fpg.unc.edu/~abc/

One study estimates the economic-development benefits of offering the Abecedarian Project to the children in the bottom two deciles of family income and finds that high-quality ECE for low-income families would contribute more to the economy than state business subsidies in the long term, if national as well as state benefits are counted.<sup>54</sup>

In a study of Chicago Child-Parent Centers (CPCs), low-income children in a high-quality, child-focused intervention program were less likely than their peers to drop out of high school, be in special education, repeat a grade, or be arrested as juveniles.<sup>55</sup> In particular, the Chicago CPC study found that children who did not participate in the program were 70 percent more likely to be arrested for a violent crime by the age of 18 than those children who did.<sup>56</sup>

The High/Scope Perry Preschool Project compared adults at age 40 who received high-quality ECE as young children with peers who did not. The study found that the group of adults who had received early childhood education instruction earned more money, were more likely to have a savings account, and were less likely to be repeat criminal offenders than their peers who were not randomly assigned to the program as children.

Comparing returns from the three high-quality ECE programs covered in table 2 (Perry Preschool Program, Chicago Child-Parent Center, and the Abecedarian Program) and from another high-quality program, the Prenatal Early/Infancy Project, the Economic Policy Institute estimates that expanding similar programs with public financing to 20 percent of the poorest 3- and 4-year-olds would offset one-fifth of the deficits for the U.S. Social Security program in the 2030–50 time period.<sup>57</sup>

After-school programs for school-age children also save public sector dollars. A review of multiple research studies to evaluate the effects of after-school programs showed significant gains to school engagement, school attendance, academic performance and positive youth development.<sup>58</sup> A cost-benefit analysis found that financial benefits from improved school performance, increased compensation, reduced juvenile and adult criminal activity, and reduced welfare costs outweighed the costs of increased attendance at school and the cost of programs.<sup>59</sup>

Reduced crime is affected by after-school programs as well. At least 50 percent of youth crime occurs in the hours after school.<sup>60</sup> A study of eighth graders found that children caring for themselves for 11 hours or more per week were twice as likely to smoke cigarettes, drink alcohol or use drugs.<sup>61</sup> Risk behaviors during adolescence predict a future of increased criminal behavior and health problems in adulthood. In a George

<sup>&</sup>lt;sup>54</sup> Bartik, T. (2008) "The Economic Development Effects of Early Childhood Programs." Washington, D.C., Partnership for America's Success. Issue Paper # 6. Retrieved September 24, 2009.

http://www.partnershipforsuccess.org/uploads/20080723\_Bartikformatted.pdf

<sup>&</sup>lt;sup>55</sup> Reynolds, A.J. et al. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest—A 15-year follow-up of low-income children in public schools. *Journal of American Medical Association*. 285 (18): 2239-2346.

<sup>&</sup>lt;sup>56</sup> Fight Crime: Invest in Kids California. (2006). *Paying the Price for the High Cost of Preschool in California*. Retrieved from http://www.fightcrime.org/ca

<sup>&</sup>lt;sup>57</sup> Lynch, R.G. (2004). "Exceptional Returns: Economic, Fiscal, and Social Benefits of Investments in Early Childhood Development." Washington, D.C. Economic Policy Institute. Retrieved November 16, 2010. http://www.epi.org/publications/entry/books\_exceptional\_returns/

<sup>&</sup>lt;sup>58</sup> Rolnick, A. and Grunewald, R. (2003).

<sup>&</sup>lt;sup>59</sup> Brown, W.O. et al. (2002). *The Costs and Benefits of After-school Programs: The Estimated Effects of the After School Education and Safety Program Ac t of 2002*. Claremont, CA: The Rose Institute.

<sup>&</sup>lt;sup>60</sup> U.S. Department of Justice (1997) as cited by the Massachusetts Executive Office of Public Safety. Cops & Kids Fact Sheet, 2000.

<sup>&</sup>lt;sup>61</sup> D. A. Farbman. (2003). The Forgotten Eighty Percent: The Case for Making the Most out of Children's Time out of School, Boston.

Mason University study, 91 percent of police chiefs surveyed nationwide agreed that "If America does not make greater investments in after-school and educational child care programs to help children and youth now, we will pay more later; in crime, welfare and other costs." 62

#### **ECE Increases School Readiness for Children**

These findings demonstrate the economic value of investing in high-quality ECE, especially for low-income children. However, children in middle- and high-income families also experience academic problems, including significant grade retention and high school dropout rates. Nationally, 12 percent of middle-income children are held back at some point during school, and 11 percent drop out before graduating high school. A third of middle-income children and a fourth of upper-middle-income children lack "key preliteracy skills" when they enter kindergarten. These findings provide evidence that high-quality early education programs may be cost-effective for children across most income brackets.

Other studies have noted a connection between a lack of school readiness and school dropout rates. A study by Melissa Roderick of the University of Chicago found that repeating a grade between kindergarten and sixth grade substantially increased the odds of dropping out of school during middle school and high school. In one cohort of public school youths, nearly 80 percent of students who repeated a grade dropped out of school, compared to only 27 percent of students who had never repeated a grade.

#### **Summary**

The ECE industry in New Mexico provides a vital service to communities and supports the current and future economy in a number of important ways:

- Children benefit because they enter the traditional K-12 school system with age-appropriate
  cognitive, social, and emotional skills they need to continue their education and because they are
  more likely to be productive and successful as adults.
- Taxpayers benefit when costs for criminal justice, remedial education, and welfare decline as a result of high-quality ECE.
- Regional economies benefit from the economic activity and job creation fueled by the ECE industry.
   In many small towns and rural areas, ECE may be one of the largest employers.
- Businesses benefit when quality, affordable, accessible ECE options attract new skilled workers to the area, and prepare children for skilled employment in the future
- Communities benefit when parents have access to safe, quality ECE for their children while they
  work outside the home.

<sup>&</sup>lt;sup>62</sup> Fight Crime, Invest in Kids. (1999). *Poll of Police Chiefs conducted by George Mason University Professors Stephen D. Mastrofski and Scott Keeter*.

<sup>&</sup>lt;sup>63</sup> Coley, R. J. (2002). An Uneven Start. Princeton, New Jersey: Educational Testing Service. As cited in Kids Can't Wait to Learn: Achieving Voluntary Preschool for All in California, Preschool California 2004.
<sup>64</sup> Colev. R.J.

<sup>&</sup>lt;sup>65</sup> Roderick, M. (1994). Grade Retention and School Dropout: Investigating the Association. *American Educational Research Journal*. 31(4): 729-759.

<sup>&</sup>lt;sup>66</sup> Roderick, M. (1994).

## Conclusion

The Early Care and Education (ECE) industry in New Mexico provides a vital service to communities and supports the current and future economy by:

- Generating significant jobs and revenue directly,
- Enabling parents to work and/or update their skills, ensuring a well prepared, and ready workforce for today,
- Increasing school readiness and improving K-12 outcomes,
- Building a ready workforce for the future.

All of these impacts of ECE rely on ready families, services, communities, and schools. These stakeholders have the ability to maximize the economic contributions of ECE in New Mexico.

# **Appendix A**

# **Methodology Guide for Gross Receipts and Direct Employment Estimates**

#### **Gross Receipts Methodology**

*Gross receipts* measure the size of an industry, with size defined as the value of goods and services produced by that industry in a given year. In the ECE industry, gross receipts are equal to the total dollars that are spent in the state in the form of payments for care and education. These payments include fees paid by parents as well as public investments to cover tuition costs. The following describes how gross receipts were estimated for each subsector of the ECE industry.

To estimate gross receipts for Head Start programs, this report uses the statewide annual allocation for these programs as reported in FY 2009 (\$94.3 million). Note allocation information for Migrant and Native American Head Start programs were not available. For these programs Insight Center multiplied funded enrollment by age group by the average annual allocation per child (\$5,700 for Head Start and \$1,200 for Early Head Start).

New Mexico State Pre-K programs can be broken into program types: 1) those funded by the Public Education Department and operated in license-exempt public schools; and 2) those regulated by the CYFD and operated in licensed ECE facilities. To estimate gross receipts for the PED programs the report uses the statewide annual allocation for these programs as reported in FY 2009: **\$7.9 million**. Since CYFD regulated Pre-K programs are licensed, gross receipts for these programs are captured in the methodology described for licensed child care centers below.

The total investment in the Child Care Food Program (\$30 million), as reported by ECS, was also added to the gross receipts.

Gross receipts estimates for licensed child care centers (excluding all Head Start programs),<sup>67</sup> licensed family homes, licensed group homes, and registered family child care homes are based on the following formula:

#### full-time equivalent enrollment x average cost/child/year = gross receipts

To calculate gross receipts using this formula, the Insight Center relied on a 2009 study of the state's market rates for ECE that was conducted by the Early Childhood Services (ECS) division of the CYFD. For this study, rates are based on a weighted average<sup>68</sup> of rates collected through this statewide survey. Market rates at the county level were not available, so statewide averages for urban, and rural counties were used. Enrollment data was also based on a 2009 survey of providers conducted by ECS. Statewide enrollment averages by age were created from the survey and applied to county capacity data to estimate county level enrollment.<sup>69</sup> The survey did not disaggregate full- and part-time enrollment. To develop a full-time equivalent estimate that accounted for children enrolled part-time, the Insight Center relied on 2006 U.S. Census Bureau data on the average hours children spend in child care, by program type.<sup>70,71</sup>

<sup>&</sup>lt;sup>67</sup> Head Start programs were backed out of licensed child care centers to avoid duplication

<sup>&</sup>lt;sup>68</sup> Weighted by star rating (quality) of respondents

<sup>&</sup>lt;sup>69</sup> Enrollment rates for unlicensed registered family child care homes were not available. Insight Center assumed 50 percent enrollment rates as a proportion of capacity (four children per home) for these homes.

<sup>70</sup> U.S. Census Bureau

<sup>&</sup>lt;sup>71</sup> Insight Center used the following full-time equivalent enrollment rates as a proportion of licensed capacity: 75.4% for licensed child care centers, 69.3% for licensed family child care homes and 68.8% for license group homes.

Total gross receipts for all licensed child care centers, excluding Head Start programs equal \$200.5 million. Gross receipts include economic activity related to licensed New Mexico State Pre-K programs regulated by CYFD. Total gross receipts for licensed family child care homes and group homes equal \$12.4 million. Gross receipts for registered family child care homes were estimated in the same way and equal \$75.8 million.

Using this methodology, the Insight Center calculates that the gross receipts for the ECE industry in New Mexico equal **\$421 million**.

#### **Direct Employment Methodology**

Direct employment is an estimate of the total number of jobs in the ECE industry.

For all Head Start programs, including those funded by Migrant and Native American Head Start sources, employment was based on an estimate by the Center for Legal and Social Policy (2,188 part- and full-time jobs). <sup>72</sup>. Therefore, the total full- and part-time staffing for all Head Start programs is **2,188**.

For NM State Pre-K programs regulated by the Public Education Department (PED), direct employment equals staffing amounts as reported by ECS (223 FTEs). Employment for NM State Pre-K programs regulated by CYFD are covered by the methodology for all licensed child care centers described below.

Direct employment estimates for teaching staff in licensed child care centers (excluding Head Start programs) were calculated by taking the total capacity of children by age and applying staff-to-child ratios for each age group as defined by the New Mexico licensing regulations.<sup>73,74</sup> To account for non-teaching employment, Insight Center relied on a University of New Mexico (Department of Economics) study on the child care workforce which found that there was one nonteaching job for every 7.33 teachers. Total staffing for licensed child care centers equal **4,249 FTEs**.

For licensed family child care homes, Insight Center assumed one FTE for each licensed home as reported by ECS. For all licensed group homes, Insight Center assumed two FTEs for each group home as reported by ECS. Total direct employment for licensed family child homes and group homes equal (537 FTEs). For registered homes receiving subsidies, Insight Center also assumed one FTE for each provider as reported by ECS (4,739 FTEs).

Utilizing this methodology, total direct employment in New Mexico equals 11,936.

<sup>&</sup>lt;sup>72</sup> New Mexico Head Start by the Numbers 2008, CLASP, October 2009. Retrieved on December 6, 2010: http://www.clasp.org/admin/site/publications\_states/files/hsdata2009nm.pdf.

<sup>&</sup>lt;sup>73</sup> CYFD does not break out licensed capacity by age group. To estimate capacity by age group, Insight Center used the proportion of children enrolled in programs from a 2009 market rate survey and applied those proportions to total licensed capacity.

<sup>&</sup>lt;sup>74</sup> http://www.nmcpr.state.nm.us/NMAC/parts/title08/08.016.0002.htm



