

Economic Impact of the Early Care and Education Industry on the Economy of the State of Alabama

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***Prepared by:
M. Keivan Deravi, Ph.D.
Professor of Economics***

***Barbara Buchanan
Research Specialist***

***Auburn University at Montgomery
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This report is an effort to quantify the economic impact of the early care and education industry on the economy of the state of Alabama. The variables of interest, to be analyzed, are employment, earnings, and final demand (output).

At the very best, this economic report is an estimate, which is based on the sound theoretical foundation of the region's economy and the most updated socioeconomic, demographic, retail, and general business climate information available.

This study estimates possible changes to the regional economy predicated on an existing economic operation. The premise of this analysis is that there will be no major event to change the short or long-term economic landscape of the region, and there will be no other competing investments in the area in the future. In other words, we assume everything else will remain constant, as we run this exercise.

Every attempt has been made to use the most recent information. The author, however, does not assume responsibility for any changes or revisions that may be made to the source data.

M. Keivan Deravi, Ph.D.
Professor of Economics
Auburn University at Montgomery
mderavi@aum.edu
(334)244-3422

Barbara (Buffy) Buchanan
Research Specialist
Auburn University at Montgomery
Bbuchan2@aum.edu
(334)244-3299

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Executive Summary

Purpose

- The purpose of this report is to conduct an economic impact study of the early care and education (ECE) industry on Alabama.
- For purposes of this report, the early care and education (ECE) industry includes all out-of-home programs where children from birth to age 5 attend in their years prior to formal schooling (K-12). This includes child care and preschool centers, family day care and group homes, Head Start, and First Class Pre-K programs for 4 year olds.
- Efforts have been made to include children from birth to age five in all calculations where data is available. Children are referred to as “children 0-5” throughout the report unless data for a different age group is used.

Introduction

- The ECE industry is critical to Alabama’s economy.
- 65% of children under the age of six have all available parents in the workforce. This means that families often rely on an ECE program to care for their children so that they can participate in the workforce.
- The ECE is a significant industry in terms of both its economic weight and social influence.
- The industry generates enormous positive economic externalities in addition to its contribution to the overall economic efficiency and transaction.
- We recognize the importance of the ECE industry as a job and income creator and as a provider of society-wide social benefits.
- Given our limited time and resources, and our specific scope here, this paper only concentrated on the tangible economic benefits of early care and education in Alabama. That is, we focused on the direct employment and the direct payroll solely attributable to the ECE industry and the ripple effect of spending in the ECE industry throughout the State’s economy.

National Data

- As of spring 2011, the U.S. Census reports the total number of children under six was 24,157,208 in the United States.
- According to the Census data, in a typical week 12.5 million preschoolers (61 percent) were in some type of regular child care arrangements.
- Thirty nine percent of all children were reported to have no regular child care arrangements in place.
- There are an estimated 819,000 child care facilities in operation in the United States.
- Family daycare is the most popular form of care with 325,000 units in operation.

- For-profit group centers, operated by large chains, are estimated at 110,000 and various other facilities such as churches, colleges, employer's centers, with government facilities accounting for the rest.
- Research estimates that Americans spent \$58.6 billion on child care in 2009.

Alabama Data

- For the calendar year 2011, the total population of Alabama's preschool age children, ages up to five years old, was estimated to be 363,535.
- Approximately 68,700 children (3-4 years old) are enrolled in nursery and preschool centers and 66,480 are enrolled in kindergarten.
- Three and four year old children are evenly enrolled in public and private schools.
- Enrollment in kindergarten is heavily weighted toward public schools, namely, 85 percent of kindergarteners are enrolled in public school versus 15 percent enrolled in private schools.
- The data show that while the total population of children increased by 2.9 percent, the number of regulated child care programs declined by 25 percent.
- This points to a divergence of supply and demand for early childhood education facilities in Alabama.
- According to the report titled "2008 Alabama Child Care Workforce Study" published by Alabama Partnership for Children, females predominantly staff the child care workforce in Alabama and they typically work fulltime in a for-profit child care program. An average child care center reported having an enrollment of 70 children and a total of 11 fulltime teachers and assistant teachers. On average, twenty-nine percent of the child care centers had a waiting list of 26 children.

Economic Impact Estimates for the Early Care and Education Industry in Alabama

Direct Data

- The total enrollment in early childhood education centers in Alabama is estimated to be 192,430 children. This constitutes 53 percent of the entire population in that age group.
- Alabama's ECE industry, in terms of its direct impact, is estimated to be a \$567 million industry.
- The industry is estimated to have a total direct employment of 18,959 full time equivalent jobs, direct payroll of \$369 million, and non-payroll expenditure of \$199 million.
- The average employee pay is estimated to be approximately \$19,000 per annum. Average enrollment per center is projected at 61 children.

Economic Impact

- Our calculation indicates that the total output impact of the ECE on the State's economy was \$1.03 billion.
- It is our estimate that the ECE industry was responsible for an average of 24,717 full time equivalent (FTE) jobs for the Alabama economy.

Purpose

The purpose of this report is to document an economic impact study of the early care and education (ECE) industry in Alabama. For purposes of this report, the ECE industry includes all out-of-home programs where children from birth to age 5 attend in the years prior to formal schooling (K-12). This includes child care and preschool centers, family day care and group homes, Head Start, and First Class Pre-K programs for 4 year olds.

The ECE industry is critical to Alabama's economy because 65% of children under the age of six have all available parents in the workforce. This means that families often rely on an ECE program to care for their children so that they can participate in the workforce.

The ECE is a significant industry in terms of its sheer economic weight, as a catalyst for efficiency and on the account of its social influence. This industry generates enormous positive economic externalities in addition to its contribution to the overall economic efficiency and transaction.

In terms of its economic weight, ECE facilitates the working of the labor market by making it function more efficiently. This industry allows the parents of preschoolers the freedom to contribute to economic activity through gainful employment. Income so generated will be partially dispersed into preschool education centers, leading to additional employment and earnings within the ECE related industries. In this context, ECE plays a vital and necessary role in terms of the continued extension of employment and earnings for parents of preschoolers.

ECE programs add to the overall economic efficiency since they support all industries in the state by enabling parents to work outside the home. For purposes of this report, however, we didn't include parents' earnings in our calculation and estimation of the economic impact of the ECE industry in Alabama. We consider this aspect of the industry as a positive externality of the industry. In other states, for example in North Carolina, this is estimated at \$14.4 billion every year.¹

In terms of its social weight, the unique feature of the ECE industry is its potential for creating an enormous and long-lasting social economic benefit for society, at large. A well-funded and well-staffed comprehensive early childhood education program can produce significant positive externalities. There is a well-established body of research pointing to a high degree of correlation between early schooling and more advanced development of preschoolers' non-cognitive skills. These skills are shown to be a powerful predictor of future socio-economic outcomes. More states have begun to view early childhood education as an investment in human

¹ <http://hugh.ncsmartstart.org/wp-content/uploads/2010/05/NCEIR-08-4pp.pdf>

capital with potential for generating large returns in terms of developmental benefits for preschoolers and long-term financial benefits to society.²

We recognize the importance of the ECE industry as a job and income creator and as a provider of society-wide social benefits. However, given our limited time and resources, and our specific scope, this paper only concentrates on the tangible economic benefits of ECE in Alabama. That is, we focused on the direct employment and the direct payroll solely attributable to the ECE industry and the ripple effect of spending in the ECE industry throughout the State's economy. In other words, the intangible long-term social benefits (positive externalities) were not covered in this report.

For obtaining the key primary data to conduct this research, we focused on the information reported by the U.S. Census Bureau. The U.S. Census reports the number of children from the age of three to five years old. These data are reported based on enrollment in public and private schools. The Census provides limited information with regard to child care arrangements for children younger than three years of age. In order to estimate the population for this group, we used a number of secondary research projects in the child care field. Every effort was utilized to include the most up-to-date information available.

Introduction

National Statistics

As of spring 2011, the U.S. Census reported the total number of children under six years old was 24,157,208 in the United States. According to the Census data, in a typical week 12.5 million preschoolers (61 percent) were in some type of regular child care arrangements. Thirty nine percent of all children were reported to have no regular child care arrangements in place.³

Almost one-quarter of all preschoolers (23.5 percent) were cared for in an organized facility. An organized facility, as defined by Laughlin, is a day care or child care center, nursery school, preschool, or Head Start program. Kindergarten and grade schools are also contained within this category. The statistics show that the employment status of the mother is an important variable for preschooler's enrollment in any type of child care facility. According to the data reviewed for this report, 72 percent of preschool age children of employed mothers were enrolled in a

² For a review of literature, please see Currie, J. (2001), "Early Childhood Education Programs", the *Journal of Economic Perspective*, 15(2), pp.231, and *Early Childhood Development and Social Mobility*, by W. Steven Barnett and Clive R. Belfield, the Brookings Institution, 2006, also see, K. Deravi, *Economics of Pre-K in Alabama: Results and Analysis*, October 2007.

³ Source: U.S. Census Bureau, American Community Survey, Report S0901

typical child care center. The statistics for non-employed mothers were reported at 12 percent.⁴

There are an estimated 819,000 child care facilities in operation in the United States. Family daycare⁵ is the most popular form of care with 325,000 units in operation. For-profit group centers, operated by large chains, are estimated at 110,000 and various other facilities such as churches, colleges, employer's centers, with government facilities accounting for the rest.⁶

Research estimates that Americans spent \$58.6 billion on child care in 2009. This amount is the sum of all household spending, federal funding from Head Start, and other types of federal and state level programs. It is forecasted that child care expenditures, the amount families spend on child care, will grow by an average of 5.4 percent, annually. It has also been shown that early education annual expenditures have not declined in 22 years, even during the recessions.⁷

In 2008, the national average cost of full time care for infants in a center was reported to be as high as \$15,895 per year. The cost for four year olds was reported to be \$11,680, and parents of school age children paid as much as \$10,720 per year. Research shows that child care fees have been rising much faster than overall inflation, at the rate of 3-4 percent annually, in recent years. The Labor Department estimates that 1.3 million people were employed in the child care sector in 2008.⁸

Alabama Statistics

For the calendar year 2011, the total population of Alabama's preschool age children, ages up to five years old, was estimated to be 363,538. Roughly, there are reported to be 60,000 children in every age group starting from less than one year old to five years old (Tables 1 and 2).

⁴ Source: Who's Minding the Kids? Child care Arrangements: Spring 2011, Lynda Laughlin, The U.S. Census Bureau

⁵ Family daycare is defined as one provider caring for one or more unrelated children in a home other than the child's home. See, Measuring the Regional Economic Importance of Early Care and Education: January 2004, Rosaria Ribeiro and Mildred Warner, http://ecommons2.library.cornell.edu/web_archive/government.cce.cornell.edu/doc/pdf/MethodologyGuide.pdf

⁶ Source: Market Data Enterprises, <http://www.prweb.com/releases/2010/06/prweb4090444.htm#.UhN3q0UzspY.email>

⁷ Source: Market Data Enterprises

⁸ Source: Market Data Enterprises

Table 1: Population Estimate for Preschoolers Aged 1 to 5 Years Old, Alabama, 2011⁹

Under 3 years	176,917	49%
3 and 4 years	127,151	35%
5 years	59,470	16%
Total	363,538	100%

Table 2: Population Estimate, 1 to 5 Years Old, Alabama, 2011¹⁰

Less than 1 Year Old	59,427
1 Year Old	60,441
2 Years Old	59,741
3 Years Old	62,324
4 Years Old	61,972
5 Years Old	61,211

Approximately, 68,700 children (3-4 years old) are enrolled in nursery and preschool centers and 66,480 are enrolled in kindergarten (Table 3). Three and four year old children are evenly enrolled in public and private schools. Enrollment in kindergarten is heavily weighted toward public schools, namely, 85 percent of kindergarteners are enrolled in public school versus 15 percent enrolled in private schools.

Table 3: Early Care and Education Center Enrollment, by Level of School by Type, for the Population 3 to 5 Years Old, Alabama, 2011^{11,12}

Enrolled in nursery school, preschool:	68,700
Public school	35,527
Private school	33,173
Enrolled in kindergarten:	66,480
Public school	56,309
Private school	10,171

In Table 4, we highlight the number of children in the 3 to 5 years age group and their enrollment status in the ECE facilities in Alabama. The data show that, in 2011, 54 percent of all the children in the 3 and 4 years age group were enrolled in some form of early education center. Statistics for the kindergarten age group stood at 112 percent of the population universe due to when their birthday falls in the year. More specifically, since the U.S. Census reports the number of children by grade level there will be some six-year-old children enrolled in kindergarten.

⁹ Source: U.S. Census Bureau, American Community Survey, Report B09001

¹⁰ Source: 2011 Alabama Kids Count Data Book

¹¹ Source: U.S. Census Bureau, American Community Survey Report C14002

¹² The terminology “nursery/preschool/kindergarten”, by age group, and by private and public school is provided by the U.S. Census Bureau

Table 4: Total Population vs. Enrollment in Early Care and Education Centers, 3 to 5 Years Old, Alabama, 2011

	Total Population	In Organized Care or Educational Facility
3 and 4 Years Old	127,151	68,700
5 Years Old	59,470	66,480

Please note that "nursery school" and "preschool" include any group or class of institution providing educational experiences for children during the years preceding kindergarten. More specifically, a nursery school is defined as a group or class that is organized to provide educational experiences for children during the year or years preceding kindergarten. It includes instruction as an important and integral phase of its program of child care. Children enrolled in programs sponsored by federal, state, or local agencies to provide ECE to young children – including First Class Pre-K and Head Start programs – are considered as enrolled in nursery school or preschool. Children enrolled in first grade are excluded from this analysis.

ECE facilities are not defined the same in every state. Alabama’s Department of Human Resources defines them as follows:

- **Child Care Centers** - Caregivers care for thirteen or more children and legally operate in one of two ways: licensed or license exempt. (Church sponsored centers are exempt, but may choose to be licensed.)
- **Family Day Care Homes** - One caregiver cares for no more than six unrelated children in the caregiver's home and must be licensed.
- **Day Care Group Homes** - Two or more caregivers care for no more than twelve children and must be licensed.

In Alabama, child care centers that operate less than four hours a day are not regulated by the Department of Human Resources. ¹³

In Table 5, we highlight the number of licensed and exempt child care providers in Alabama along with the population estimate of children up to five years old for the years 2002-2011. The data show that while the total population of children increased by 2.9 percent, the number of regulated child care programs declined by 25 percent. This points to a divergence of supply and demand for early care and education facilities in Alabama. Please note that the estimate for the number of child care providers does not include caregivers in children’s own private homes – nanny care or care provided by a family member.

¹³ Source: Department of Human Resources http://alabamachildcarefacts.com/?page_id=2

Table 5: Number of Licensed and Exempt Child Care Providers and 1 to 5 Years Old Preschoolers in Alabama, 2002-2011¹⁴

	Number of Licensed and Exempt Child Care Providers	Population Estimates 1 to 5 Years Old
2002	4173	354,914
2003	4026	354,256
2004	4185	354,863
2005	3824	357,307
2006	3818	360,241
2007	3495	362,018
2008	3341	364,862
2009	3294	366,498
2010	3160	365,259
2011	3158	365,116

According to the report titled “2008 Alabama Child Care Workforce Study” published by Alabama Partnership for Children, females predominantly staff the child care workforce in Alabama and they typically work fulltime in a for-profit child care program. An average child care center reported to have an enrollment of 70 children and a total of 11 fulltime teachers and assistant teachers. On average, twenty-nine percent of the child care centers had a waiting list of 26 children.

In 2008, the average starting pay for a center teacher was \$6.91 an hour. The portion of the teaching staff receiving full pay health insurance was at 5 percent of the total workforce in the industry.

Economic Impact of the Early Care and Education Industry

Methodology

The methodology employed to estimate the impact of the early care and education (ECE) industry on Alabama’s economy is derived from regional economic models. The basic premise is that ECE business operation stimulates various sectors in the local economy. These activities, by ECE, may lead to additional demand for goods and services in the region. In turn, the affected sectors increase their demand from their suppliers, throughout the region, to respond to the additional demand generated by the ECE.

Classifying the impacts into three broad categories facilitates an understanding of how an initial change in the demand for goods and services in the economy will lead to additional impacts.

The three categories of impacts are:

¹⁴ Source: 2011 Alabama Kids Count Data Book

Direct: The direct impacts of ECE are the additional demand and expenditures in the local economy that are directly attributable to the regular and day-to-day operation of ECE.

Indirect: To the extent that direct purchases of goods and services, by ECE, reverberate throughout the local economy, and result in further increases in business transactions, there will be indirect impacts. An indirect impact, for example, results when a business needs additional resources to service the increased demand directly attributable to the operation of ECE. The suppliers of these items find their sales increasing and, in turn, they will need more input to meet the new demand.

This process continues, yielding a multiplier effect on the output of the local economy. Whenever the extra demands are met by industries outside the local economy, there are **leakages** from the flow of products and income from the local economy. **The greater the number of leakages, the lower the indirect impacts and the lower the multiplier.** On the other hand, the more diversified the local economy, the higher the value of multipliers.

Induced: Additional indirect effects are induced by the change in income in the economy. For example, when a business hires an additional worker to meet the demand caused by ECE or its supplier's network, the worker's spending further enhances economic activity in the region.

Determining multipliers for the project under consideration is a fundamental step toward conducting an economic impact analysis. The term multiplier refers to the ratio of all direct, indirect, and induced effects to the direct effects. Once the total direct impact of the ECE operation—specifically, earnings, employment, and output directly attributable to ECE—are estimated; they are then linked to other relevant criteria.

For estimating the economic impact of this project, economic multiplier information was gathered from:

The U.S. Department of Labor
The U.S. Census Bureau
The U.S. Bureau of Economic Analysis

Notes about Impact (Analysis) Model

The following observations should be noted about the model used for conducting the analysis in this study.

- The Input-Output model used for this study deals with readily available, quantifiable impacts such as dollars of spending or employment. The model does not consider social costs or benefits of economic activities.

- The model used is a static process that does not take into account changes over time in a dynamic economy. This suggests that the relationships between economic sectors are fixed, as of the date of the model's underlying database, and does not account for adjustments that may take place over time.
- The model assumes that the relationship between changes in demand for products and services and the resulting changes in income and employment are linear. That is, it does not take into account the changes in productivity over time.
- The model assumes that a response to any incremental changes in demand for goods and services is at the average rather than the marginal rate.
- Finally, the model does not take into consideration the additional capital expenditures required to support indirect and induced effects on the local economy.

Direct Impact Data

Estimates of direct economic impact (or the primary data) for ECE in Alabama are highlighted in Table 9. Direct impact data are the net additions to key regional economic variables (employment, earnings, and value added of services produced) that are solely and directly attributable to the operation of ECE in Alabama.

Due to the unavailability of data, the majority of the information reported in Table 9 was estimated by way of using readily available secondary data. Our estimation process for direct impact data is as follows:

- 1- As the first step, we set forth to estimate the number of children under the age of three enrolled in ECE facilities in Alabama in 2011. This step was necessitated because the U.S. Census Bureau does not report statistics regarding child care or early education facilities for this particular age group.
- 2- Alabama Partnership for Children reports that 36 percent of the ECE enrollment in Alabama is in preschool (3 and 4 years old) age category (Table 6).
- 3- We used the school enrollment for the 3 and 4 years old group as reported in Table 3 and exploded it by a ratio of 36 percent to estimate total ECE enrollment population for all preschool age children.
- 4- The total enrollment for the ECE in Alabama was estimated to be 192,430.
- 5- Based on the data tabulated in Table 6, thirty percent (30%) of the total ECE enrollment was then allocated to the infant and toddler age group (the percentage applicable to children less than three years old).
- 6- Enrollment estimate for this age group was calculated to be 57,250 or thirty-two percent (32%) of the total cohort in that particular age group.
- 7- Next, using the established teacher-to-child ratio for each of the age groups, we proceeded to estimate the total employment for ECE (using Tables 7 and 8).

- 8- Finally, using the prevailing hourly wage rates information for different job classifications of the child care employees, we estimated the total payroll and non-payroll spending of ECE in Alabama (Table 9).

Table 6: Early Care and Education Center Enrollment by Age – Alabama, in Percentage¹⁵

Infant	10%
Toddler	20%
Preschool	36%
School Age	16%

Table 7: Estimate of Preschoolers in Early Care and Education Centers by Age Group, Alabama, 2011

Under 3 years	57,250
3 and 4 years	68,700
5 years	66,480
Total	192,430

Table 8: Required Staff to Child Ratio, Alabama¹⁶

0 up to 18 months	1 to 5
18 months up to 2 1/2 years	1 to 7
24 months up to 36 months	1 to 8
2 1/2 years up to 4 years	1 to 11
4 years to school age	1 to 18

Economic Impact Estimate

According to the data highlighted in Table 9, the total enrollment in early care and education centers in Alabama is estimated to be 192,430 children. This constitutes 53 percent of the entire population in that age cohort. This figure is consistent with the data reported by the U.S. Census Bureau.¹⁷

Alabama’s ECE industry, in terms of its direct impact, is estimated to be a \$567 million industry. The industry is estimated to have total direct employment of 18,959 full time equivalent jobs, direct payroll of \$369 million, and non-payroll expenditures, all other operating expenses, of \$199 million. The average employee pay is estimated to be approximately \$19,000 per annum. Average enrollment per center is projected at 61 children.

¹⁵ Source: 2008 Alabama Child Care Workforce Study, Alabama Partnership for Children

¹⁶ Source: Minimum Standards for Day Care Centers and Nighttime Centers, State of Alabama Department of Human Resources, January 2001.

¹⁷ Source: Population Reference Bureau, the U.S. Census Bureau, 2007 - 2011 American Community Survey.

Table 9: Estimates of Direct Employment, Payroll, and Non-Payroll Expenditures for the Early Care and Education Industry in Alabama

Age	ECE Enrollment by Age Group by Age Group	Estimated Direct Employment	Estimated Wages	Estimated Non-Wage Expenditures
Under 3 years	57,250	8,179	\$159,097,435	\$85,667,850
3 and 4 years	68,700	6,870	\$133,641,845	\$71,960,994
5 years	66,480	3,911	\$76,072,522	\$40,962,127
Total	192,430	18,959	\$368,811,802	\$198,590,971

Next, the direct impact estimates, as reported in Table 9, were subjected to multiplier analysis and ECE’s total economic (direct, indirect, and induced) impact was calculated. The results are presented in tables 10 and 11.

We begin our calculations of total economic impact using ECE’s payroll and non-payroll spending. Payroll spending is the direct payment for services to employees, and non-payroll spending is direct payment to suppliers and vendors. These two categories of spending, once incurred, will trigger additional purchases and production of goods and services throughout the economy.

In 2011, the ECE industry injected a total of \$369 million of direct wages and salaries into Alabama’s economy (Table 10). This income (earned income by ECE employees) was spent on the purchase of goods and services (output) throughout the State. The total output impact attributed to this classification of spending is estimated as follows:

- ✓ First, withholdings and spending leakages were subtracted from the gross payroll.
- ✓ This provided us with “contributory direct payroll” of \$252 million.
- ✓ Next, the average sales multiplier for payroll spending was estimated to be 2.638.
- ✓ Applying this multiplier to the contributory direct payroll yielded an output impact contribution from payroll of \$665 million.

Next, we concentrate on ECE’s output contribution from its non-payroll expenditures.

- ✓ ECE’s non-payroll expenditures in 2011 were estimated at \$199 million.
- ✓ We applied a leakage factor of 5 percent to the above estimate. This resulted in a total in-state non-payroll expenditure of \$189 million.
- ✓ Finally, we applied a multiplier of 1.9287 to this class of spending. This resulted in an estimated output impact from non-payroll expenditure of \$364 million.

The total output impact of ECE on the State's economy in 2011 is the sum of these two subcomponents. As presented in Table 10, our calculation indicates that the total output impact of the ECE on the State's economy was \$1.03 billion.

Table 10: Total Economic Impact of the Early Care and Education Industry in Alabama

Gross Payroll	\$368,811,802
Withholding	\$88,514,833
Leakages	\$28,029,697
Contributory Payroll	\$252,267,273
Weighted Average Sales Multiplier	2.638
Total Economic Contribution from Wages & Salaries	\$665,408,126
Non-Payroll Expenditure	\$198,590,971
Leakage	\$9,929,549
Total In State Non-Payroll Expenditures	\$188,661,422
Multiplier	1.9287
Total Economic Contribution (non-payroll expenditures)	\$363,871,285
Total Economic Contribution	\$1,029,279,410

Next, we concentrate on the employment impact. Similar to the output case, we computed the employment impact using the direct employment. The process and the results are presented in Table 11. As reported, it is our estimate that the ECE industry was responsible for an average of 24,717 full time equivalent (FTE) jobs for the Alabama economy.

Table 11: Employment Impact of the Early Care and Education Industry in Alabama

Employment Impact	
Direct Job	18,959
Direct Employment Multiplier	1.3037
Jobs Created	24,717
Total Employment Impact	24,717

Final Words

This report attempted to estimate the economic impact of the early care and education (ECE) industry on Alabama. For purposes of this report, the early care and education (ECE) industry was defined to include all out-of-home programs

where children from birth to age 5 attend in the years prior to formal schooling (K-12).

For the calendar year 2011, the total population of Alabama's birth to age 5 was estimated to be 363,538. Roughly, there are 60,000 children in every age group starting from less than one-year-old to five years old. Approximately, 68,700 (3 and 4 years old) children are enrolled in nursery and preschool centers, and 66,480 are enrolled in kindergarten. The total enrollment in ECE centers in Alabama is estimated to be 192,430 children. This constitutes 53 percent of the entire population in that age cohort.

The ECE industry is a most critical sector of the Alabama's economy. The reasons for importance of this industry are as follows:

1. ECE programs add to overall economic efficiency since they support all industries in the state by enabling parents to work outside the home. It is reported that 65% of children under the age of six have all available parents in the workforce. This means that families often rely on an ECE program to care for their children so that they can participate in the workforce.
2. A well-funded and well-staffed comprehensive early childhood education program can produce significant positive externalities. There is a well-established body of research pointing to a high degree of correlation between early schooling and more advanced development of preschoolers' non-cognitive skills. These skills are shown to be a powerful predictor of future socio-economic outcomes.
3. ECE is a direct producer of jobs and income in Alabama. In terms of its direct impact, we estimate the industry to account for \$567 million of Alabama Gross Domestic Product. The industry is estimated to have total direct employment of 18,959 full time equivalent jobs, direct payroll of \$369 million, and non-payroll expenditures, all other operating expenses, of \$199 million. In terms of total employment size, Alabama's ECE industry commands more jobs than those employed in legal occupations, licensed practical and licensed vocational nurses, accountants, auditors, police and sheriff's patrol officers, or firefighters.

While recognizing the potency and importance of the positive externalities associated with the ECE industry, due to time and resource allocation, this report focused on the direct employment and the direct payroll solely attributable to the ECE industry and the ripple effect of spending in the ECE industry throughout the State's economy.

The total impact of ECE on the State's economy in 2011 was estimated to be \$1.03 billion. It is our estimate that the ECE industry was responsible for an average of 24,717 full time equivalent (FTE) jobs for the Alabama economy.