

Senate Bill (SB) 522

Nevada Early Childhood Education (ECE) Program

**Building a Foundation for School Readiness and
Success in PreK-12 and Beyond**

**FY 2014-15
Evaluation Report
Executive Summary**

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Office of Early Care and Development

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EXECUTIVE SUMMARY

The 2013 Nevada State Legislature passed Senate Bill (SB) 522 that continued the funding of the Nevada Early Childhood Education (ECE) Program, and appropriated \$3,338,875 in the 2013-14 fiscal year and \$3,247,375 in the 2014-15 fiscal year.

The purpose of the legislation is to initiate or expand pre-kindergarten education programs.



Ten school districts and one community-based organization operated a state-funded early childhood education program in 2014-15. These ten school districts are Carson City, Churchill County, Clark County, Elko County, Humboldt County, Mineral County, Nye County, Pershing County, Washoe County, and White Pine County. The community-based organization is Great Basin College in Elko.

During 2014-15, the 11 Nevada ECE projects provided services to 1,360 families, including 1,398 children and 1,461 adults. Using the figure of 1,202 children as an average daily child count and the total grant amount of \$3,247,375, the average cost of the Nevada ECE program per child in 2014-15 was \$2,702. The 1,398 program children represent about 1.9 percent of the number of three- to four-year-old children in Nevada during 2014-15. Nationally, 16.7 percent of three- to four-year-old children are enrolled in state pre-kindergarten programs (National Institute for Early Education Research, 2014).

The Nevada Department of Education (NDE) conducted an annual and longitudinal evaluation of the Nevada ECE program in 2014-15, as directed by SB 522. NDE has been collecting this longitudinal data since 2003 documenting significant program success. The primary focus of the evaluation is to determine the effectiveness of the program on the developmental progress of children and parental involvement, both short-term and long-term effects.

Research on early childhood education has found that preschool education can improve the learning and development of young children. Studies have clearly shown that participation in quality preschool education programs have short-term effects on cognitive, social, emotional, and physical development. In fact, several analyses calculated that preschool education programs produce a gain of one-half (0.50) standard deviation on cognitive development, which is the equivalent of a move from the 30th to the 50th percentile on achievement tests. In other words, preschool education can significantly reduce the size of the school readiness gap between “at-risk” children, similar to many of the children served in the Nevada State PreK program, and

Key Facts About—

Nevada Early Childhood Education Program:

- ◆ Served 1.9% of the estimated 3-to 4-year-old population in Nevada, compared to other state-funded programs that serve 17% of the 3-to-4 year old population nationally.
- ◆ Had over 1,040 children and families waiting for space to enter the program.
- ◆ Achieved 7 of 10 national, research-based quality indicators of early childhood education programs as determined by National Institute for Early Childhood Research.
- ◆ Served a population which included 33 percent of children learning English as a second language.

average students nationally.

An important finding is that teacher effectiveness is among the most important factors in program quality. Preschool teachers who hold a bachelor’s degree and have specialized training in early childhood education, such as the training required by Nevada statute, have a larger positive impact on children than programs administered by non-certified preschool teachers. In fact, requiring that early childhood teachers have a bachelor’s degree and specialized training are two of the seven out of ten national quality benchmarks for early childhood education met by Nevada (*National Institute for Early Education Research, 2014*).

“I feel this program has started my child on a great learning adventure, and without this program my child would have gone into kindergarten at a disadvantage socially and educationally.”

Testimonial from Parent at Churchill County School District ECE Program

Other studies have examined preschool education’s long-term effects, providing information on its effects into elementary school years and beyond. For example, the evaluation of the Chicago Child-Parent Centers (CPC) found that pre-k participants scored significantly higher on standardized reading tests than children who did not enroll – by 5 percent at age 9 and by 4 percent at age 14. The study also found that pre-k participants were 40 percent less likely to be retained through age 15; 41 percent less likely to have been placed in special education through age 18; and 19 percent more likely to have completed high school by age 21..

The outcomes found in national longitudinal evaluations of preschool programs suggest that the positive long-term effects are primarily because preschool children had different experiences in elementary school due to the cognitive gains achieved in preschool. Increasing children’s cognitive abilities early helps them to transition into school, and reduces the likelihood that they will be tracked into low ability groups, placed in special education, or retained in grade.

Findings from Annual Evaluation: Short-Term Effects

The primary purpose of the annual evaluation is to investigate the performance of children and adults on six outcome indicators: three indicators on the developmental progress of children and three indicators on parental involvement. The results show that Nevada ECE children exceeded the expected performance levels for all six indicators, as shown in the table starting below.

Program Indicator	Actual	Status
Developmental Progress of Children		
<p><i>Indicator 1: Reading Readiness – Individual Student Gain</i> With a minimum of four months of participation, 80% of ECE children from three years old until they enter kindergarten will show improvement in auditory comprehension and expressive communication as measured by a standard score increase on (a) the Peabody Picture Vocabulary Test (PPVT) and (b) the Expressive One-Word Picture Vocabulary Test (EOWPVT).</p>	<p>a. PPVT- 82.8% b. EOWPVT- 89.3%</p>	<p>a. Exceeded b. Exceeded</p>

<p><i>Indicator 2: Reading Readiness – Average Gain</i></p> <p>With a minimum of four months of participation, ECE children from birth until they enter kindergarten will make an average gain of 8 standard score points in auditory comprehension as measured by (a) the PPVT, and of 10 standard score points in expressive communication as measured by (b) the EOWPVT.</p>	<p>a. PPVT- 11.0 pts. b. EOWPVT- 12.3 pts.</p>	<p>a. Exceeded b. Exceeded</p>
<p><i>Indicator 3: English Language Acquisition – Average Gain</i></p> <p>With a minimum of four months of participation, ECE children from three to five years with limited English skills will make an average gain of XX raw score points in English acquisition as measured by the WIDA Model Assessment.¹</p>	<p>a. Listening: 5.0 pts. b. Speaking: 1.6 pts.</p>	<p>a. NA b. NA</p>
<p>Parental Involvement</p>		
<p><i>Indicator 1: Individual Parenting Goals</i></p> <p>Ninety-two percent (92%) of participating adults enrolled in Early Childhood Education for at least four months will meet at least one goal related to parenting skills (e.g., developmental appropriateness, positive discipline, teaching and learning, care-giving environment) within the reporting year.</p>	<p>97.9%</p>	<p>Exceeded</p>
<p><i>Indicator 2: Time with Children</i></p> <p>Eighty percent (80%) of first-year Early Childhood Education parents will increase the amount of time they spend with their children weekly within a reporting year.</p>	<p>85.8%</p>	<p>Exceeded</p>
<p><i>Indicator 3: Reading with Children</i></p> <p>Eighty percent (80%) of first-year Early Childhood Education parents will increase the amount of time they spend reading with their children within a reporting year.</p>	<p>86.9%</p>	<p>Exceeded</p>

Findings from Longitudinal Evaluation: Long-Term Effects

The longitudinal evaluation followed the Cohort 9 group of children from Nevada ECE: four-year-olds who participated in Nevada ECE during 2011-12 and entered grade 2 in 2014-15. To assess the developmental progress of the children, the longitudinal evaluation compares the performance of Cohort 9 students on the Peabody Picture Vocabulary Test (PPVT) and Expressive One-Word Picture Vocabulary Test (EOWPVT) during preschool in 2011-12 with their performance at the end of grade 2 in 2014-15. To assess the parent involvement, the longitudinal evaluation measured the parent-teacher conference attendance rate of the parents of the Cohort 9 children in comparison to the parent-teacher attendance rate at the schools that the Cohort 9 children attended.

¹ Nevada is currently participating in a pilot program to develop a pre-Kindergarten WIDA Model Assessment. The benchmark for this indicator will be established once this new assessment is developed and tested.

Developmental Progress of Children. Cohort 9 students made large learning gains on the PPVT and the EOWPVT in 2011-12 while in preschool. Then, Cohort 9 students maintained the significant learning gains they made in preschool through the end of grade 2 in receptive vocabulary, but not in expressive vocabulary, falling short of expectation.

Parent Involvement. Nevada ECE parents attended parent/teacher conferences at a rate similar to other parents with children in grade 2 at the schools that the Cohort 9 children attended.

Conclusions

The results from the 2014-15 annual evaluation of the Nevada ECE program, as well as all previous annual evaluations, support the national research on the short-term effects of quality preschool education programs. The positive short-term results of the Nevada ECE program can, in part, be attributed to the fact that Nevada state law requires pre-Kindergarten teachers to be highly qualified, either by holding a special license or an endorsement in early childhood education.

Perhaps more importantly, the results from this year's longitudinal evaluation as well as previous years' longitudinal evaluations continue to provide solid evidence that the impact of Nevada ECE is, at the least, consistent with the national research on the long-term cognitive effects of quality preschool education programs.

Developmental Progress of Children

- **Short-Term Effects.** The Nevada ECE Program had short-term effects on the developmental progress of children. Nevada ECE children made large cognitive gains in preschool and were clearly better prepared to enter kindergarten academically than if they had not participated in Nevada ECE. This is an important achievement for the largely at-risk student population served in the program because it closed the entire achievement gap in school readiness with average students and will probably help these children avoid some early obstacles that most at-risk student populations face, thus providing them a better chance at early school success.
- It is especially important for the large number of English language learners in the program who, in fact, may have even benefited the most academically from the Nevada ECE Program. These developmental gains during early learning help ease their transition into school, preparing them for future success.
- **Long-Term Effects.** After preschool, Nevada ECE students appear to have maintained the significant learning gains they achieved in preschool through grade 2 in elementary school in one of the two assessments administered, consistent with the national research

Key Findings—

Nevada Early Childhood Education Program:

- ◆ Children achieved significant learning gains in preschool, better preparing Nevada children for kindergarten.
- ◆ Met or exceeded the benchmarks for five statewide indicators on the developmental progress of children and parent involvement.
- ◆ Showed positive long-term effects on student academic skills on into elementary school, especially for English language learners.

This year's longitudinal evaluation, like previous years, continues to provide solid evidence that the impact of NV ECE is very positive and highly effective.

results on long-term cognitive effects. In fact, English language learners made additional gains after preschool and have continued to chip away at the initial achievement gap that existed prior to their participation in the Nevada ECE program. These results suggest that participation in the Nevada ECE program may decrease the need for extra services in elementary school, such as participation in English as a Second Language services.

Parent Involvement

- ***Short-Term Effects.*** The parents of the children who participated in the Nevada ECE Program became more involved in the education of their children, including spending more quality time with them, especially in terms of reading with their children. As research has learned, increased parent involvement leads to increased student achievement due, in part, to the value of education that parents convey to their children by their own actions.
- ***Long-Term Effects.*** After preschool, the parents of the children continued to be very involved in their children's learning. In fact, the parents of the Nevada ECE children appear to be as involved in their children's learning as schoolmates' parents.

Recommendations

A long held belief is that a quality education can go a long way in reducing and perhaps even eliminating the achievement gap of low-income and minority students and some of the real life inequalities that result from that gap. Over the many years that the Nevada ECE Program has been evaluated, the program has achieved the status of a quality education program by showing it has both positive short-term and continued long-term effects on participating children. The results from the evaluation suggest that the Nevada State Legislature continue the funding of the Nevada ECE Program and consider increasing the funds to expand the program so that more than the current 1.9 percent of the estimated three and four year-old children in Nevada benefit from this effective program. For comparison, 16.7 percent of three- to four-year-old children nationally are enrolled in state pre-kindergarten programs.

Even though Nevada ECE projects have established sound early childhood education programs, all Nevada ECE projects can still improve the services they provide to children and adults. Below are four recommendations for improvement suggested by the evaluation results.

1. Continue to collect data on student participation in services and student and parent measures on the developmental progress and parent involvement, even in the absence of formal evaluation systems and personnel.
2. Continue to adopt, implement, and provide training to staff in high-quality, research-based early childhood programs and practices. Train all new staff in Nevada Pre-Kindergarten Content Standards.
3. Examine the project's ratings on the Early Childhood Environmental Rating Scale (ECERS) and the Early Language and Literacy Classroom Observation Tool (ELLCO), and develop program improvement plans for at least two indicators that received lower ratings, i.e., a rating of less than "5" on the ECERS and a rating less than "4" on the ELLCO.

4. Examine the project's performance on the six statewide outcome indicators and develop program improvement plans for any indicator that the project did not meet.

The Nevada Department of Education can help projects meet their goals by developing concrete plans to implement five recommendations:

1. Require projects to collect data on student participation in services and student and parent measures on child developmental progress and parent involvement, even in the absence of formal evaluation systems and personnel. Provide guidance and tools to projects so that they can report the data to NDE at the end of the school year. Develop a process, such as a mid-year review, to closely monitor project data collection. Summarize the results at the end of the school year.
2. Continue to work with individual projects to improve services in the early childhood environmental indicators assessed with the ECERS and ELLCO by having projects develop improvement plans for at least two indicators in which projects were rated low, i.e., a rating of less than "5" on the ECERS and a rating less than "4" on the ELLCO.
3. Ensure that all projects that did not meet any of the six state performance indicators develop improvement plans to address the indicator(s).
4. Provide training to all projects on the indicators that received the lowest ratings in 2014-15, i.e., Personal Care Routines (*safety practices and health practices.*) from the ECERS and Print and Early Writing (*early writing environment, support for children's writing, and environmental print*) from the ELLCO.
5. Develop a framework and provide guidance to Nevada ECE projects on how and in which areas to collaborate with other early childhood education programs, such as Title I, PreK Development Grant, SB 405 ELL, and Head Start, to improve services to preschool children and align data collection and assessments accordingly.