

# Modeling the Costs and Benefits Of Early Childhood Programs in New York

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Presentation to the New York Early  
Childhood Advisory Council Financing  
Strategies Forum



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# New York ECE Calculator Goals

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1. Map New York's early childhood system, including funding and program enrollment
2. Compute the additional cost necessary to create a more inclusive and higher quality system (the “funding gap”)
3. Allows users to adjust a variety of settings, such as coverage, participation rates and quality levels, and see the cost implications.



## Data Included In Model

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- ❑ Current enrollment and funding for publicly funded programs for children birth through 8
- ❑ Includes programs funded at federal or state level, plus NYC
- ❑ Incorporates costs of child care by quality level, age, and income

# Return on Investment Component

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- Current cost model incorporates current funding and per-child costs for all state- and federally funded early childhood programs
- ROI module will estimate the economic benefit of current or proposed system
- Output is quantified as total economic return and return per dollar invested (“multiplier”)



# Estimating Return on Investment

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1. Calculations are based on analysis of the research literature on costs and benefits of early childhood programs
2. Estimates drawn from research literature are adjusted based on New York costs and system characteristics
3. Methodology is reviewed with panel of experts

# Examples of economic benefits of preschool

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- ❑ **Child care:** Impact on economy of child care industry
- ❑ **Future income:** Increased lifetime income (primarily due to increased HS graduation rates)
- ❑ **Repeated grades:** reduced K-12 funding costs due to reduced grade retention
- ❑ **SPED:** reduction in need for SPED services
- ❑ **Graduation rates:** savings associated with increased graduation rates (overlaps with future income)
- ❑ **Child welfare:** reduction in foster care placement rates
- ❑ **Criminal justice:** reduction in costs of juvenile placement
- ❑ **Reduced welfare:** reduction in welfare payments to parents
- ❑ **Taxes:** increase in tax base due to higher lifetime income of students

# ROI for Colorado's ECE System\* (current)

Return Type	Current Funding	Return Per Dollar Invested	ROI Under Current System
<b>Overall</b>	<b>\$244,363,005</b>	<b>\$8.78</b>	<b>\$2,147,475,393</b>
Child Care		\$1.13	\$276,833,127
Future Income		\$1.56	\$382,214,846
Repeated Grades		\$0.08	\$19,110,480
SPED		\$0.48	\$117,218,031
Grad Rates		\$2.26	\$551,190,703
Child Welfare		\$0.05	\$12,666,304
Criminal Justice		\$0.85	\$207,308,461
Reduced Welfare		\$0.39	\$94,877,654
Taxes		\$1.73	\$423,353,902

*\*includes programs with ROI data only*

# ROI Under Expanded CPP Scenario (+7,800 slots)

	Current Program Funding*	Current Return Per \$ Invested	Current ROI*	Add'l Costs*	Add'l ROI *	Total Cost*	Total ROI*
<b>Overall</b>	<b>\$71</b>	<b>\$7.08</b>	<b>\$500</b>	<b>\$37</b>	<b>\$200</b>	<b>\$107</b>	<b>\$700</b>
Child Care		\$0.90	\$63		\$29		\$92
Future Income		\$1.30	\$92		\$36		\$127
Repeated Grades		\$0.07	\$5		\$2		\$6
SPED		\$0.40	\$28		\$11		\$40
Grad Rates		\$1.89	\$133		\$52		\$186
Child Welfare		\$0.04	\$3		\$1		\$4
Criminal Justice		\$0.71	\$50		\$20		\$70
Reduced Welfare		\$0.32	\$23		\$9		\$32
Taxes		\$1.45	\$102		\$40		\$143

\*millions of dollars

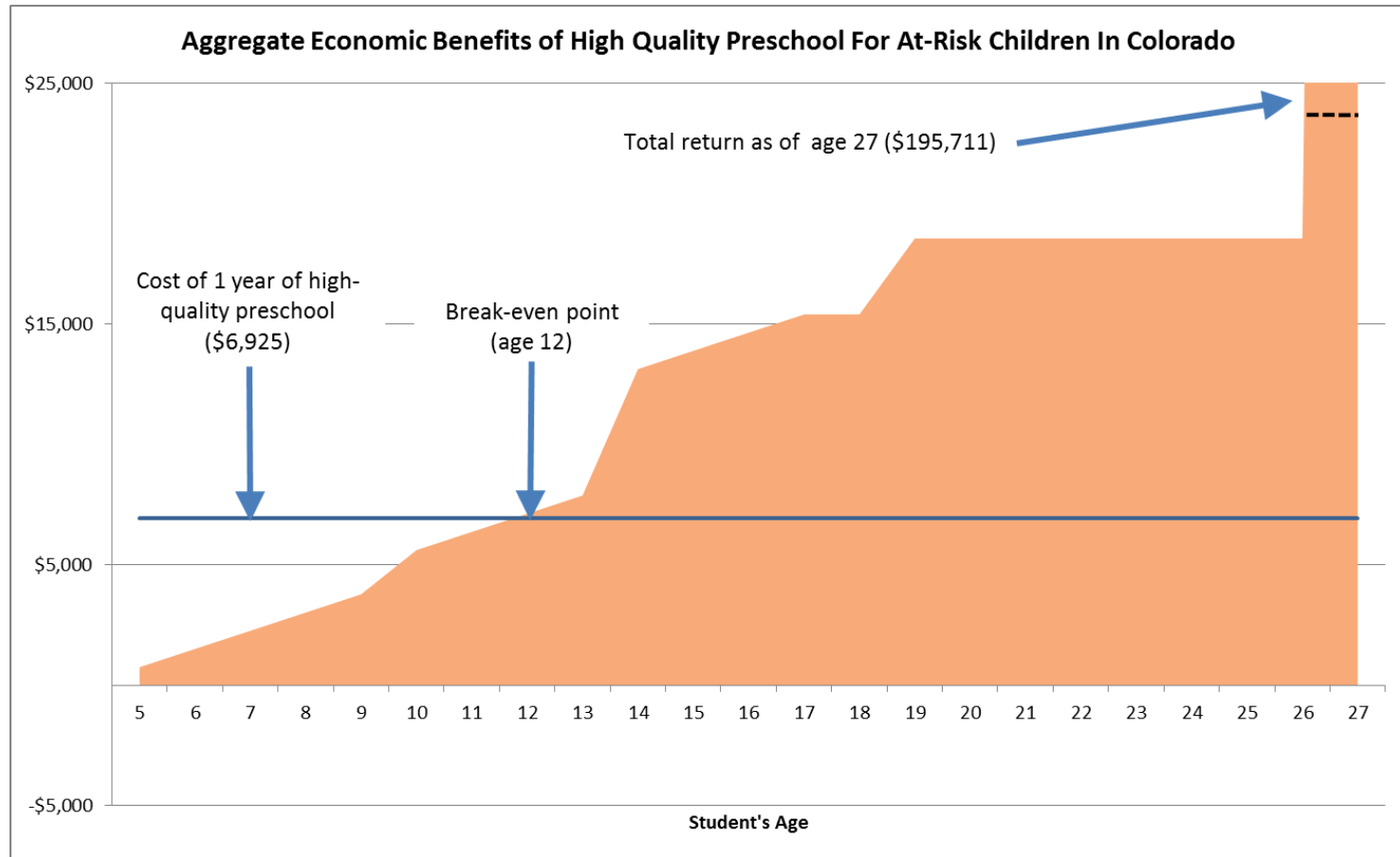


# ROI for Child Care in Colorado Under Expanded Quality Scenario (all 3 star or higher)

	Current System Funding*	ROI Under Current System*	Additional Program Costs*	Additional ROI Under Proposed System*	Total Program Cost*	Return Per Dollar Invested	Total ROI Under Proposed System*
<b>Overall</b>	<b>\$220</b>	<b>\$2,076</b>	<b>\$84</b>	<b>\$2,126</b>	<b>\$303</b>	<b>\$13.88</b>	<b>\$4,202</b>
Child Care		\$273		\$329		\$1.99	\$602
Future Income		\$378		\$380		\$2.49	\$758
Repeated Grades		\$18		\$19		\$0.13	\$38
SPED		\$116		\$116		\$0.77	\$232
Grad Rates		\$545		\$547		\$3.62	\$1,093
Child Welfare		\$12		\$13		\$0.08	\$25
Criminal Justice		\$205		\$206		\$1.36	\$411
Reduced Welfare		\$93		\$94		\$0.62	\$189
Taxes		\$419		\$420		\$2.78	\$839

\*millions of dollars

# Colorado Social Innovation Bond Analysis (preliminary results)





# Findings from Colorado

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- Under current system, every dollar invested in ECE yields about \$9 in returns.
- “Break-even” point for high quality preschool occurs at age 12
- Most “bang for buck” in increasing quality