

# The Economics of Early Childhood Education Investments in New Mexico

Presentation to the REVENUE STABILIZATION & TAX POLICY COMMITTEE  
based on the White Paper, “Catalyst for a Great Transition? Increased Investments in Early Childhood  
Education in New Mexico,” by Kira Villa, Melissa Binder and Robert Berrens.

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# White Paper – Catalyst for a Great Transition

- Released in January of 2019
- Authors



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# Sustainable Development

# The economics of sustainable development

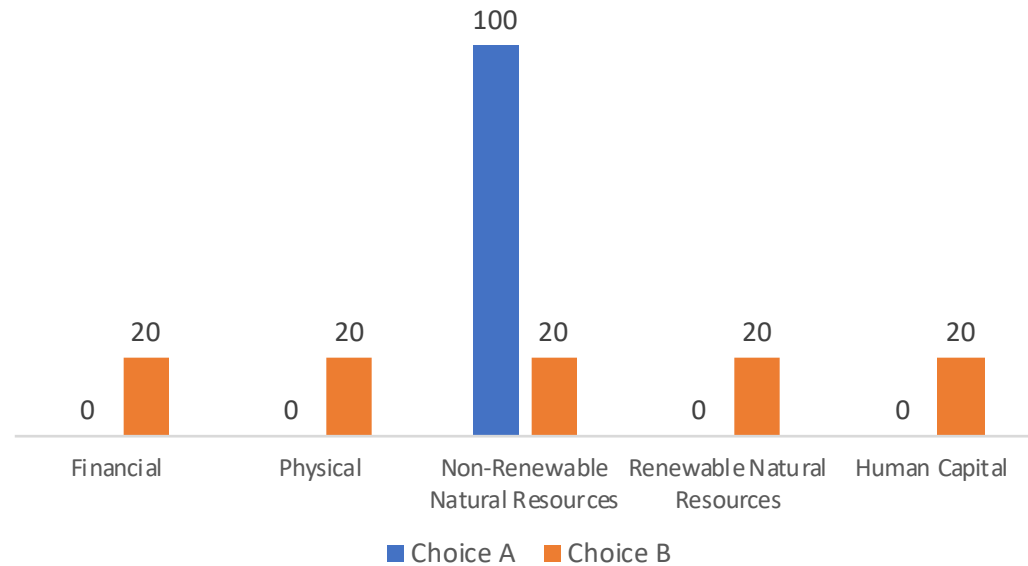
- Capital stock components:
  - Financial capital
  - Physical capital
  - Renewable and Non-renewable capital
  - Human capital
- All components produce revenue streams
- Don't reduce the revenue stream / don't deplete the capital stock
  - Total Capital tomorrow  $\geq$  Total Capital today

# Principles of responsible stewardship

## \*Don't deplete total capital stock

- Maximize income: invest in capital with the highest return on investment (highest income stream)
- Diversify
- Incorporate social values

Choice A and choice B represent the same total capital, but Choice A violates the Diversify principle and, most likely, social values.



# Returns on investment in early childhood education

# Annual rate of return on money invested

- State financial investments net of fees ~6%
- HighScope Perry Preschool Program: 6% - 7.5%
  - 2½ hours per day high quality pre-school
  - Home visits
  - 3-5 years of age
- ABC & CARE Program: 11% - 13.7%
  - Full-time high quality child care and pre-school
  - Health component
  - 0-5 years of age

Heckman, James J., Seong Hyeok Moon, Rodrigo Pinto, Peter A. Savelyev, and Adam Yavitz. "The Rate of Return to the HighScope Perry Preschool Program." *Journal of Public Economics* 94, no. 1 (January 1, 2010): 114–28.

García, Jorge Luis, James J. Heckman, Duncan Ermini Leaf, and María José Prados. 2020. "Quantifying the Life-Cycle Benefits of an Influential Early-Childhood Program." *Journal of Political Economy* 128 (7): 2502–41.

# Where these estimates come from

- Randomized controlled trials, 30+ year follow-up
- Differences between treatment and control groups for:
  - Education
  - Earnings
  - Crime
  - Welfare use
  - Health



# Range of estimates

Program	Ages served	Estimated Returns			
		Non-tax funding (LGPF), at-risk children	In NM, ~75% of births on Medicaid, 75% of students eligible for free and reduced lunch	Savings to Government (80%)	Benefits to individuals: crime victims, participants (20%)
Pre-K	3-5	10.0%	7.5%	6.0%	1.5%
High quality child care + pre-K	0-5	18.3%	13.7%	11.0%	2.7%

Most relevant column

# Universal, voluntary Oklahoma Pre-K

- In middle school, students who had attended pre-K in 2006 had
  - higher math scores
  - more honors courses
  - less grade repetition
- Effects strongest for Hispanic and English Language Learners (ELL)

Gormley, , Jr., William T., Deborah Phillips, and Sara Anderson. "The Effects of Tulsa's Pre-K Program on Middle School Student Performance." *Journal of Policy Analysis & Management* 37, no. 1 (Winter 2018): 63–87.

# Early benefits, underlying mechanism

- Early benefits for children
  - Less likely to be placed in special education
  - Less likely to repeat a grade
  - More likely to graduate from high school
- One likely mechanism for improved school, labor market and crime outcomes is non-cognitive skills
  - Persistence
  - Self-control
  - Conscientiousness

# Investment principles and Early Childhood Education

- Impressive returns on investment
- Diversification
- Social values (equity, poverty reduction)

COVID-19

# COVID-19 has devastated Oil and Gas

- Low-cost extraction in Permian Basin suggests we'll see increased revenue in the future
- Analysis does not depend on windfall
- Boom and bust pattern is to be expected
- We need to diversify economic development, revenue sources

Investing in ECE is a  
viable alternative

# COVID-19 and Opportunity Gap in Native and Latinx communities

- Brunt of illness and mortality
- Schooling

Underlines need  
for ECE  
investments

Does a 1% distribution from the LGPF accommodate unmet for ECE?



# Lower bound estimates of unmet need: Home Visiting

\$4500 per child per year (St. Joseph's Homevisiting Program in FY 2019)

X

5,419 children (LFC's estimated unmet need)

+

\$300 (difference between St. Joseph's cost per child and LFC cost)

X

5,381 (estimated children served in FY 2019)

=

**\$27.9 million**

## Lower bound estimates of unmet need: pre-K

Based on Oklahoma's experience with universal, voluntary pre-K, ~75% of eligible children would enroll (compared with about ~40% now)

$$75\%/40\% = 1.875$$

X \$64 million (FY 2019 cost and mix of full-day and half-day)

$$= \$122.6 \text{ million total cost} - \$64 \text{ million cost} =$$

**\$58.6 million**

Full-day for all participants would cost

**\$106 million**

Evaluation set aside of 10%

For quality assurance

**\$17 million**

## Total unmet need

\$27.9 million (home visiting)  
+ \$58.6 to \$106 million (pre-K)  
+ \$17 million (quality assurance)  
= \$104 to \$151 million

1% distribution (FY 2020 estimate) = \$163.3

1% of schools portion (FY 2020 estimate) = \$132.5

Does a 1% distribution from the LGPF  
accommodate unmet for ECE?

**YES**

## Re-Cap

- Investment in early childhood education through a 1% distribution from the LGPF meets the criteria for sustainable development
  - Good expected return on investment
  - Diversifies portfolio
  - Meets social values (addresses equity)
- The revenue from a 1% distribution would cover unmet need.
- The revenue from a 1% distribution from the schools portion of the fund would come close to covering the lower-bound estimate for unmet need for home-visiting and full-day pre-K.

# Support for a 1% distribution from the LGPF

- Thus, after careful review, we support legislative proposals for an increment of no more than 1% in the distribution rate of the LGPF to support increased investments in ECE. This might be restricted to the Commons Schools component of the LGPF.
- The restricted distribution would come close to covering a conservative, lower bound estimate of unmet ECE needs, including pre-K for 3- and 4-year olds, with some margin for quality improvements in existing programs.
- To optimize these investments we encourage phased-in implementation, with efficient state oversight and administration, a minimum floor on protecting the corpus of the fund, and a significant focus on assessment and outcomes evaluation.

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