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# **Sins of the Fathers? Lessons from the Perry, Abecedarian, and CPC Studies**

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**RUTGERS**

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## Three Benefit-Cost Analyses with Disadvantaged Children

	<b>Abecedarian</b>	<b>Chicago</b>	<b>High/Scope</b>
<b>Year began</b>	1972	1985	1962
<b>Location</b>	Chapel Hill, NC	Chicago, IL	Ypsilanti, MI
<b>Sample size</b>	111	1,539	123
<b>Design</b>	RCT	Matched neighborhood	RCT
<b>Ages</b>	6 wks-age 5	Ages 3-4	Ages 3-4
<b>Program schedule</b>	Full-day, year round	Half-day, school year	Half-day, school year

Barnett, W. S., & Masse, L. N. (2007). Early childhood program design and economic returns: Comparative benefit-cost analysis of the Abecedarian program and policy implications, *Economics of Education Review*, 26, 113-125; Temple, J. A., & Reynolds, A. J. (2007). Benefits and costs of investments in preschool education: Evidence from the Child-Parent Centers and related programs. *Economics of Education Review*, 26(1), 126-144; Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40* (Monographs of the High/Scope Educational Research Foundation, 14). Ypsilanti, MI: High/Scope Educational Research Foundation.



# Economic Returns to Pre-K for Disadvantaged Children

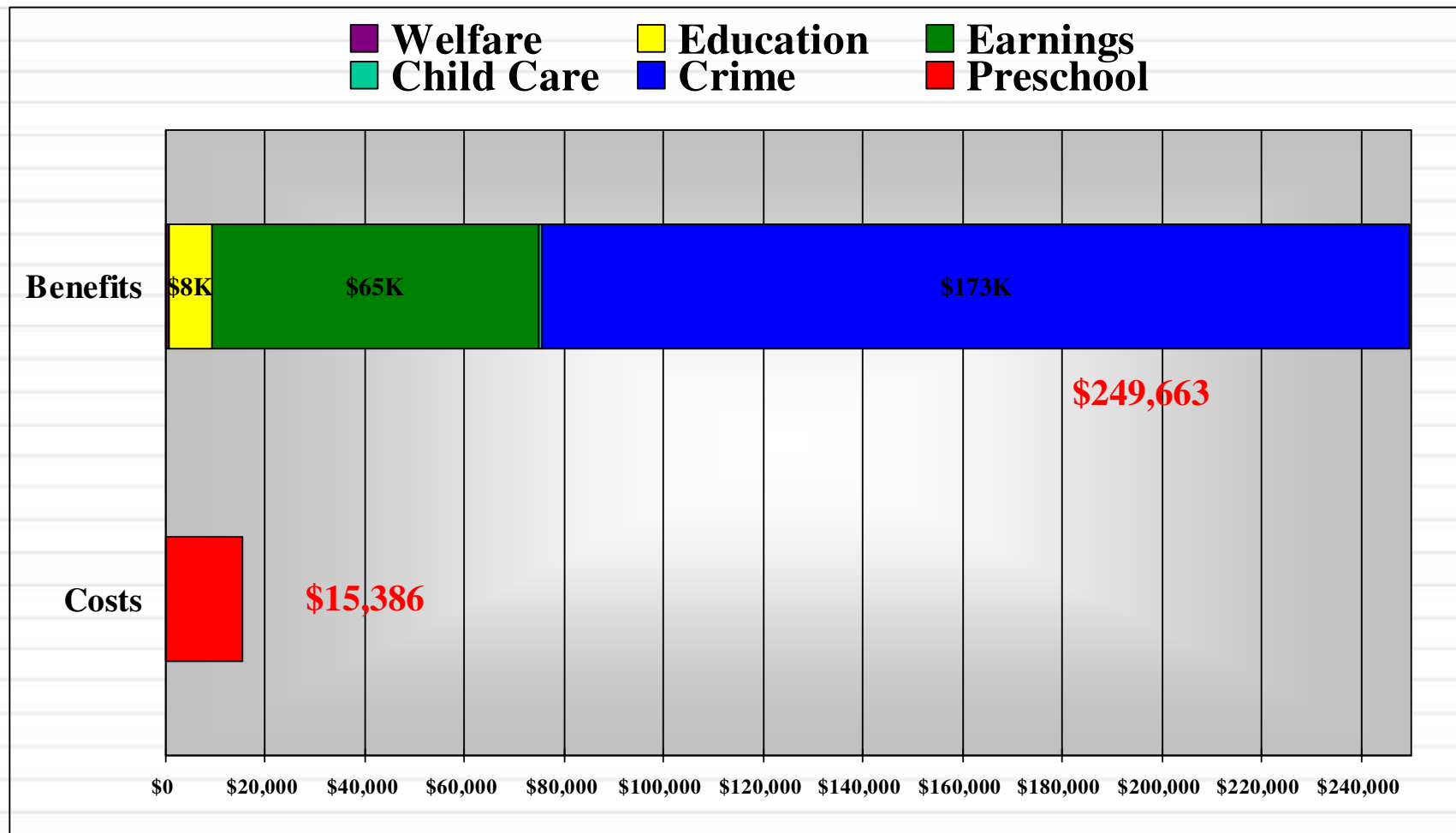
(In 2006 dollars, 3% discount rate)

	Cost	Benefits	B/C
§ Perry Pre-K	\$17,599	\$284,086	Big
§ Abecedarian	\$70,697	\$176,284	>1
§ Chicago	\$ 8,224	\$ 83,511	Big

Barnett, W. S., & Masse, L. N. (2007). Early childhood program design and economic returns: Comparative benefit-cost analysis of the Abecedarian program and policy implications, *Economics of Education Review*, 26, 113-125; Belfield, C., Nores, M., Barnett, W.S., & Schweinhart, L.J. (2006). The High/Scope Perry Preschool Program. *Journal of Human Resources*, 41(1), 162-190; Temple, J. A., & Reynolds, A. J. (2007). Benefits and costs of investments in preschool education: Evidence from the Child-Parent Centers and related programs. *Economics of Education Review*, 26(1), 126-144.

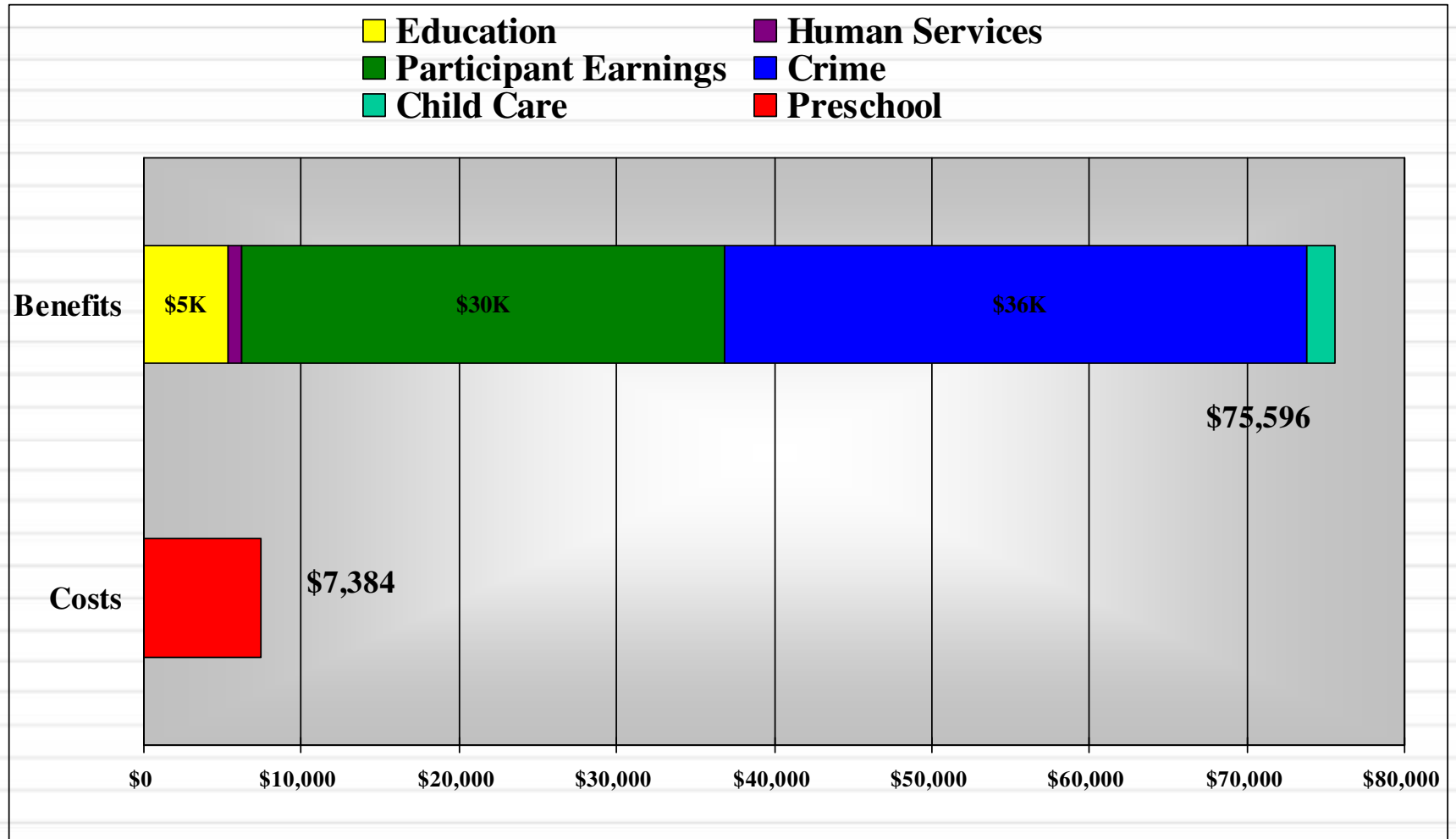


## Perry: Economic Return



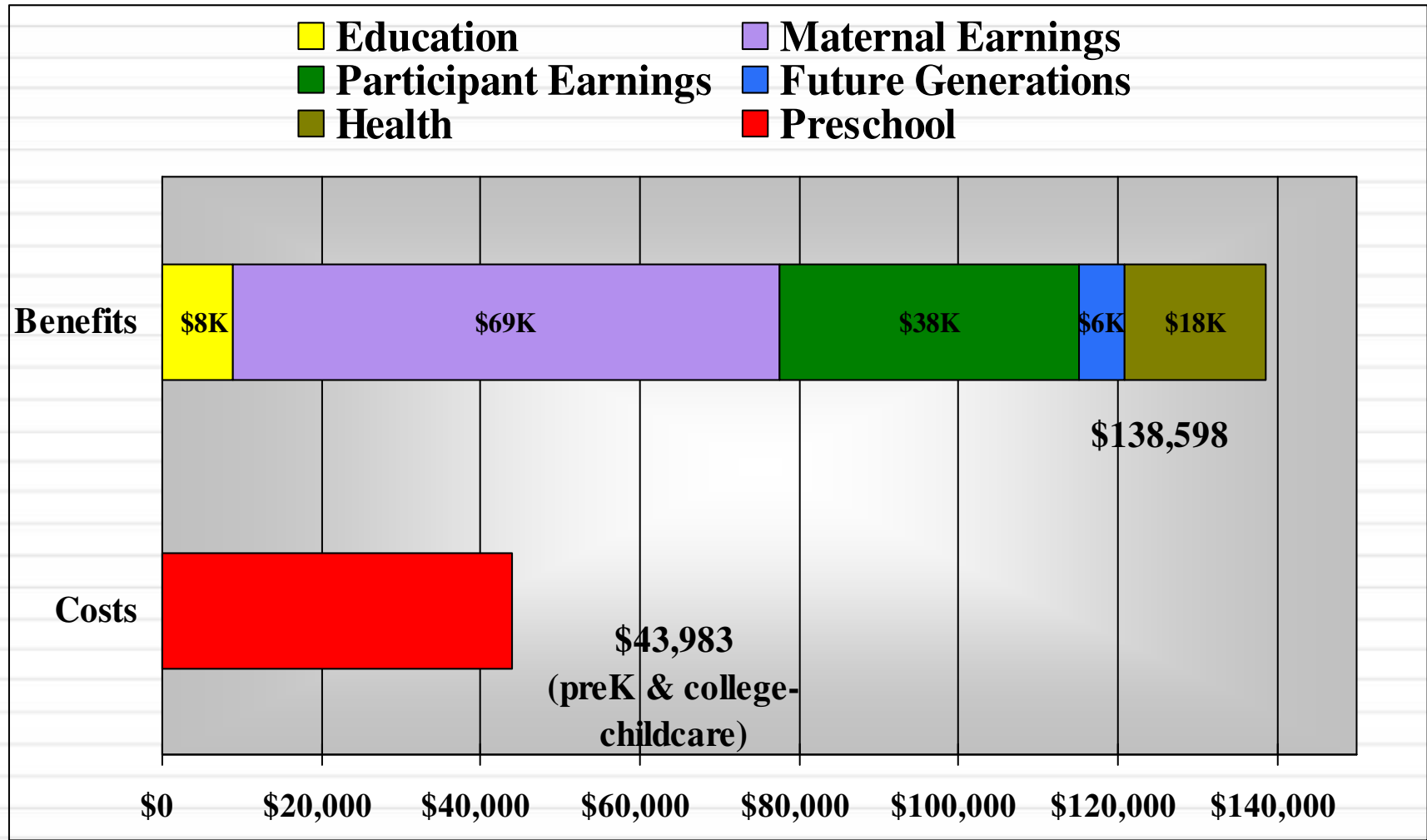


## CPC: Economic Return





## Abecedarian: Economic Return





# Perry Preschool Initial Focus

- § IQ (large effects)
- § Achievement test scores (moderate)
- § Motivation (none/weak)
- § Behavior/classroom conduct (3 of 8x)
- § Social-emotional development (2 of 12x)
- § Retained in grade and special ed. (moderate)
- § Maternal attitudes (moderate)
- § Mother involvement with education (none)
- § Home environment (oops/none)
- § Parent as teacher (none)
- § Gender interactions (no significant interactions)



# Perry Preschool Initial BCA

- § Age 15 (Carol Weber, P. Foster, D. Weikart, 1978)
- § Quantified
  - § Cost, public and private
  - § Reduced special education and grade retention costs
  - § Projected earnings by predicting attainment from special education
  - § Maternal time released
  - § One IRR
- § Mentioned as possible effects and concerns
  - § Labor force participation
  - § Crime
  - § Welfare
  - § Social and distributional concerns



# Perry Preschool Age 19 to 40 BCA

## § Quantified

- § Cost, public and private, “deadweight” loss
- § Education costs, reduced and increased (greater attainment)
- § Child care value
- § Projected compensation based on participation, earnings, survival as predicted by attainment and from observed trends
- § Crime—activities, arrests, convictions, incarceration, supervision
- § Welfare
- § Distributional consequences
- § Multiple discount rates and sensitivity analyses
- § Separate analyses by gender (males higher return)
- § Health, Health Behaviors, Mental Health, Pregnancy, Abortion, Fertility, Family Formation, Civic Participation, Risky Behaviors, Substance Abuse, Wealth—not sig. or not monetized

## § Mentioned as possible

- § Person-Process-Context Variation
- § Sibling and peer effects



# Abecedarian BCA

## § Initial Data and Analysis

- § Cost public and private
- § IQ, Achievement, Behavior (no effects)
- § Education costs, reduced and increased (greater attainment)
- § Child care (compared to control)
- § No measures of maternal employment and earnings birth-5
- § Long-term maternal earnings (measures not std. econ.)
- § Earnings
- § Crime
- § Welfare
- § Health (but very limited, mortality related to smoking)
- § Second generation—earnings only

## § Subsequently measured

- § Mental Health



# Chicago CPC BCA

- § Core benefits are the same as Perry
  - § Initially did not include victim costs of crime, later added
  - § Opportunity costs to parents not included
- § New outcomes added (not all in BCA yet)
  - § Abuse and Neglect—Child welfare, out-of-home placement
  - § Health insurance
  - § Depression
  - § Disability status (SSI) or parent report
  - § Health status (self-report)
  - § Parent educational attainment—evidence of selection bias?
  - § Parent disability/SSDI—evidence of selection bias?
  - § Gender difference—high school graduation for boys not girls



# Limitations

- § Small samples –only large effects
- § Individual T v C designs neglect spillovers
- § No measures for siblings
- § Limited measures for parents



# Potential Advances

- § Low frequency-high cost behaviors and outcomes
  - § Mortality
  - § Direct health measures
- § Health-related outcomes--weight, health habits, risky behavior
- § “Off-the-Shelf” estimates of the economic value of outcomes
- § Value of “distributional” effects to third parties
- § True costs of government revenues
- § Sibling effects
- § Intergenerational effects other than earnings
- § Better estimates of tax payments, consumption, and savings
- § Time use, goods, and well-being?
- § Economic growth and productivity spillovers?
- § Peer effects and community spillovers
  - § Classroom composition effects on learning and behavior K-12
  - § Teacher response to work conditions—turnover, compensation, substitutes
  - § School safety, security, and maintenance costs
  - § Property values