

# Factors placing children “at risk”

Patsy Pierce, Ph.D.

Research Division, NCGA

Early Childhood Education Committee

February 2, 2012

<http://www.ncleg.net/gascripts/DocumentSites/browseDocSite.asp?nID=153&sFolderName=\11-03-2011>

# What does “at risk” mean?

- Risk: “the possibility of harm or loss”  
(American Heritage Dictionary, 2008)
- Children with certain characteristics and/or who are living in certain circumstances may be more “at risk” for learning, developmental and/or health problems as children and underemployment, unemployment, health and/or mental health problems as adults

# Risk and Protective Factor Research

- Risk factors are characteristics of school, community, and family environments, as well as characteristics of students and their peer groups that are known to predict increased likelihood of drug use, delinquency, school dropout, teen pregnancy, and violent behavior among youth.
  - Hawkins, J. D.; Catalano, R. F.; Arthur, M. W. (2002). "Promoting science-based prevention in communities". *Addictive Behaviors* **27** (6): 951–976. [doi:10.1016/S0306-4603\(02\)00298-8](https://doi.org/10.1016/S0306-4603(02)00298-8). [PMID 12369478](https://pubmed.ncbi.nlm.nih.gov/12369478/).
  - Hawkins, J. D.; Catalano, R. F.; Miller, J. Y. (1992). "Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention". *Psychological Bulletin* **112** (1): 64–105. [doi:10.1037/0033-2909.112.1.64](https://doi.org/10.1037/0033-2909.112.1.64). [PMID 1529040](https://pubmed.ncbi.nlm.nih.gov/1529040/)

# Risk and Protective Factor Research

- Protective factors exert a positive influence or buffer against the negative influence of risk, thus reducing the likelihood that adolescents will engage in problem behaviors.
- Protective factors include social bonding to family, school, community and peers; healthy beliefs and clear standards for behavior; and individual characteristics. For bonding to serve as a protective influence, it must occur through involvement with peers and adults who communicate healthy values and set clear standards for behavior.

# Risk and Protective Factor Research

- Research on risk and protective factors has important implications for prevention efforts.
- **The premise of the risk and protective factor model is that in order to promote positive youth development and prevent problem behaviors, it is necessary to address those factors that predict the problem behaviors.**
- By measuring risk and protective factors in a population, prevention programs can be implemented that will reduce the elevated risk factors and increase the protective factors.
- For example, if academic failure is identified as an elevated risk factor in a community, then mentoring, tutoring and increased opportunities and rewards for classroom participation can be provided to improve academic performance.

# Current NC Pre-K Eligibility Criteria

**“ At risk” factors:**

**A child**

- Is from a family whose gross income is at or below 75% of the State Median Income level;
- Has an identified disability as indicated by the child having a current Individualized Education Program (IEP);
- Has Limited English Proficiency (LEP) as indicated by the family and/or child speaking limited or no English in the home;

## NC Pre-K “At Risk” Conditions, cont’d

- Has a developmental or educational need as indicated by the child’s performance results on an approved developmental screening;
- Has a chronic health condition as indicated by a health care provider diagnosis;
- Has at least one parent or legal guardian who is an active duty member of the armed forces of the United States, the North Carolina National Guard or other state military force, or a Reserve Unit of the armed forces, and who is ordered to active duty by the proper authority within the last 18 months, or expected to be ordered within the next 18 months. A child whose parent or legal guardian has been seriously injured or killed while on active duty is also eligible.

# Research findings through Google Scholar 1990-2012 database

- Poverty:
  - Impact on education: non-high school completion, retention, learning disabilities, lower literacy levels
  - Impact on health: low birth weight, illness
- Chronic Health Conditions: absences, limited mobility, fatigue, pain, learning problems
- Disability: non-high school completion, limited literacy
- Limited English Proficiency: non-high school completion, poverty
- Family in military: frequent family relocation was associated with an increased risk of children failing a grade in school and more frequently occurring behavioral problems



# Other State Pre-K Program Eligibility

- 10 states do not have state-funded Pre-K program
- 13 states have/moving toward universal Pre-K
- 5 states use Head Start eligibility criteria
- 5 states let local school districts determine eligibility based on local needs
- 23 states use a combination of either state or federal poverty guidelines and other environmental/biological risk factors

# Head Start Eligibility

*Low-income family* means a family whose total annual income before taxes is equal to, or less than, the income guidelines. For the purpose of eligibility, a child from a family that is receiving public assistance or a child in foster care is eligible even if the family income exceeds the income guidelines.

45 CFR 1305 Eligibility, Recruitment,  
Selection, Enrollment and Attendance in  
Head Start

# Federal Poverty Definition

- The original poverty definition provided a range of income cutoffs or thresholds adjusted by such factors as family size, sex of the family head, number of children under 18 years old, and farm-nonfarm residence. At the core of this definition of poverty was the economy food plan, the least costly of four nutritionally adequate food plans designed by the Department of Agriculture. It was determined from the Department of Agriculture's 1955 Household Food Consumption Survey that families of three or more people spent approximately one-third of their after-tax money income on food; accordingly, poverty thresholds for families of three or more people were set at three times the cost of the economy food plan. Annual updates of these SSA poverty thresholds were based on price changes of the items in the economy food plan.
- The poverty thresholds are increased each year by the same percentage as the annual average Consumer Price Index (CPI).
  - Source: <http://www.census.gov/population/www/cps/cpsdef.html>

# 2011 HHS Poverty Guidelines

2011 HHS Poverty Guidelines			
Persons in Family	48 Contiguous States and D.C.	Alaska	Hawaii
1	\$10,890	\$13,600	\$12,540
2	14,710	18,380	16,930
3	18,530	23,160	21,320
4	22,350	27,940	25,710
5	26,170	32,720	30,100
6	29,990	37,500	34,490
7	33,810	42,280	38,880
8	37,630	47,060	43,270
For each additional person, add	3,820	4,780	4,390

*Federal Register*, Vol. 76, No. 13, January 20, 2011,  
pp. 3637-3638

# 2011 NC Pre-K Enrollment by Income

Family Size	up to 100% FPL (HS)	101-130% FPL (Free)	131-185% FPL (Reduced Price)	186-200% FPL	Over 200 % FPL (@75% of SMI)	Total Children
1	154	2	4	0	1	161
2	2211	403	445	60	168	3287
3	4541	746	878	139	515	6819
4	4981	1082	1283	231	885	8462
5	3368	661	716	111	322	5178
6	1485	262	209	21	102	2079
7	497	56	54	6	13	626
8	187	21	17	0	3	228
9	50	8	2	0	0	60
10	21	1	1	0	0	23
11	7	0	0	0	0	7
12	4	0	0	0	0	4
<b>Total</b>	17506	3242	3609	568	2009	26934
<b>Percent</b>	65.0%	12.0%	13.4%	2.1%	7.5%	100.0%

# “At Risk”: Commonalities Across States and Programs

- Environmental risk factors, e.g., poverty, maternal education level, child abuse/neglect
- Biological risk factors, e.g., disability, chronic health problems

# **Can we prevent “at risk” from becoming a self-fulfilling prophecy? In other words, do early childhood programs work?**

- Longitudinal Studies (participants are now adults)
  - Perry Preschool Program
  - Abecedarian Project
  - Chicago Child-Parent Centers
- Current Pre-K program studies (participants are now upper elementary/middle school students)
  - OK
  - NC
  - NJ

# Effects

- Longitudinal studies show for participants:
  - Greater high school and college completion
  - Less teen pregnancy, unemployment or underemployment, and crime involvement
- Current Pre-K program studies show higher third grade math and reading scores for participants
- Estimated cost-benefit analyses:
  - Perry: \$1 to \$16
  - Abecedarian: \$1 to \$4
  - Chicago-Child Parent: \$1 to \$10



# Essential Elements for Long Term, Positive Outcomes

- High levels of teacher education and professional development
- Teacher to child ratio allowing for frequent one on one and small group interactions
- Adequate teacher compensation
- Strong supervision and support of teachers
- Intensive educational focus in pre-K classrooms
- Balanced curriculum addressing all domains of learning
- Sufficient quantity of educational programming
  - Source: Barnett, W.S. (2010). Effectiveness of Early Educational Intervention, *Science*, 333, 975-978.

# Outcome Research Sources

- Campbell, F. A., Ramey, C. T., Pungello, E. P., Sparling, J., & Miller-Johnson, S. (2002). Early Childhood Education: Young Adult Outcomes from the Abecedarian Project. *Applied Developmental Science*, 6, 42-57.  
<http://www.fpg.unc.edu/~abc/#home>
- Heckman, J.J., Moon, S.H., Pinto, R., Savelyez, P., & Yavitz, A. (2010). “The Rate of return to the HighScope Perry Preschool Program.” *Journal of Public Economics*, 94(1-2), 114-128.
- Reynolds, A.J., Temple, J.A., Robertson, D.L., & Mann, E.A. (2002). Age 21 Cost Benefit Analysis of the Title I Chicago Child-Parent centers. *Educational Evaluation and Policy Analysis*, 49(24), 267-303.
- Masse, L.N., & Barnett, W.S. (2002). A Cost Benefit-Analysis of the Abecedarian Early Childhood Intervention. NIEER.