

# Outcomes Linked to High Quality After-School Programs

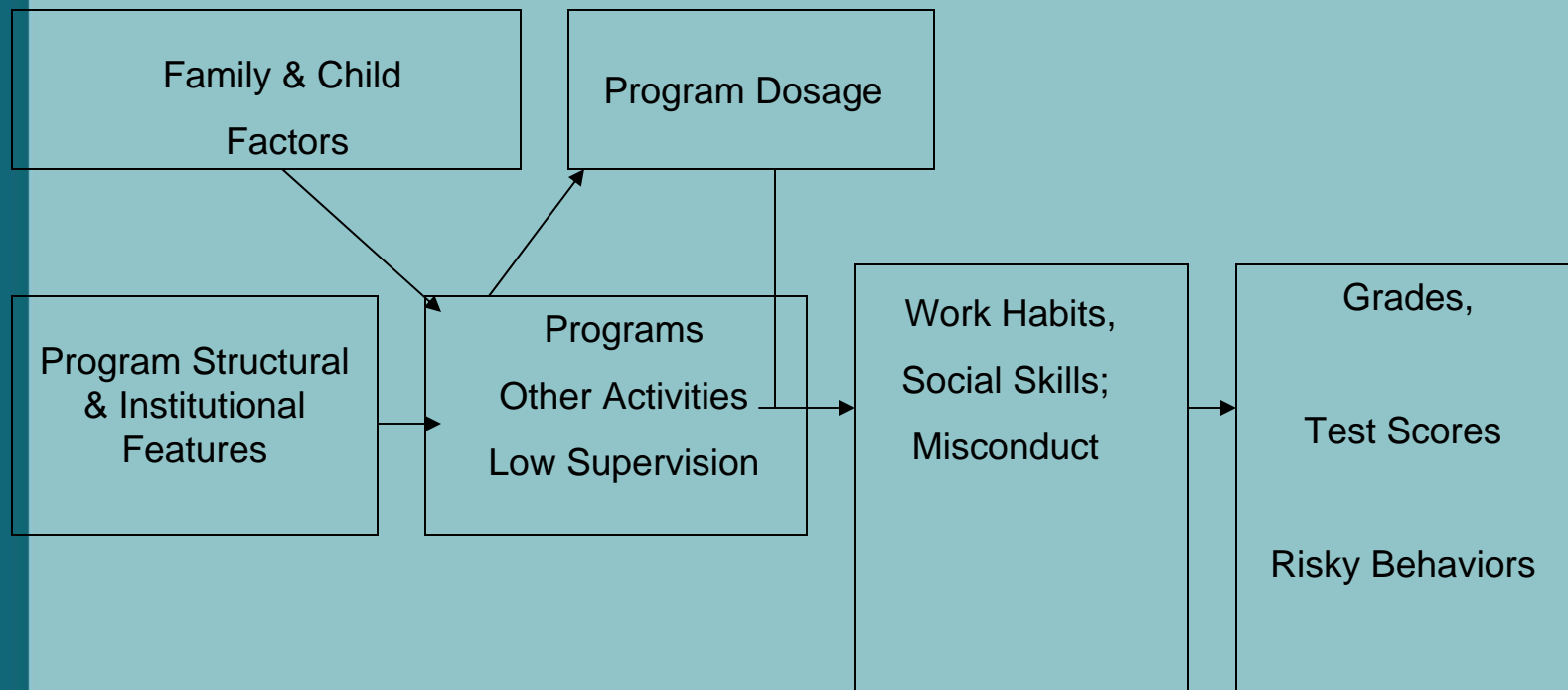
## Longitudinal Findings from the Study of Promising After- School Programs



## The Study of Promising After-School Programs

- A 2-year longitudinal study of almost 3000 low-income, ethnically diverse elementary and middle school students.
- Tests the proposition that economically disadvantaged students who regularly attend high quality after-school programs will demonstrate significant gains in academic achievement and social competencies and significant reductions in problem behaviors, relative to students who have less adult supervision in the after-school hours.

## Theory of Change



## Study Sites

8 states: CA, CN, CO, MI, MT, NY, OR, RI

14 communities: rural, small town, mid-size city, large city

All programs and schools served high poverty communities

## Characteristics of the High Quality Programs

- Positive social relationships between student and staff
- Positive social relationships between students
- Mix of academic and non-academic skill building activities
- High levels of student engagement
- Mastery orientation
- Appropriate levels of structure
- Opportunities for autonomy and choice

These features were assessed by observations, interviews, and surveys.

## Study Participants

### 19 elementary schools

1796 3<sup>rd</sup> and 4<sup>th</sup> grade students

89% free or reduced price school lunch

88% students of color

– 77% Hispanic, 8% Black, 3% Asian or other

### 16 middle schools

1119 6<sup>th</sup> and 7<sup>th</sup> grade students

63% free or reduced lunch

69% students of color

– 49% Hispanic, 13% Black, 7% Asian or other)

## Participation in Promising Programs and Other Activities Over 2 Years

### Elementary Sample (n = 1796)

- 54% regular program participants
  - 2/3 Program Only
  - 1/3 Program Plus
- 15% low supervision

### Middle School Sample (n = 1118)

- 49% regular program participants
  - 2/3 Program Only
  - 1/3 Program Plus
- 16% low supervision

## Child Outcomes Measured at Baseline, Yr1, and Yr2

Standardized Test Scores	Self-Reports	Teacher Reports
Math	Work habits	Work habits
Reading	Misconduct	Task persistence
	Substance Use	Academic performance
		Social skills
		Prosocial
		Aggression

## Analysis Plan

- Elementary and Middle School Samples analyzed separately
- HLM analyses in which students are nested within schools
- Covariates: child gender, race/ethnicity, family structure, mother education, mother employment status, family income
- Outcomes – difference scores from baseline to end of year 2

## Elementary School Students

### Standardized Test Scores

Significant gains in math scores over two years

Program Only vs Low Supervision - 12 percentiles

Program Plus vs Low Supervision - 20 percentiles

Effect sizes for math gains

Program Only vs Low Supervision -  $d = .52$

Program Plus vs Low Supervision -  $d = .73$ .

These effects are comparable to the effect sizes on reading skills (.43 to .68) reported by a well-known reading intervention (Success for All).

The Promising After-School Program effects are more than twice as large as effects on test scores reported for Tennessee study which reduced class sizes from 23 students to 15 students.

## Elementary School Students

### Academic-related Skills

Program Only and Program Plus students posted significant gains in work habits and in task persistence, relative to the Low Supervision group.

The effect size for gains in work habits for the Program Plus group relative to Low Supervision is .35. The effect size for the Program Only group vs Low Supervision is .31.

The effect size for gains in task persistence for the Program Plus group relative to Low Supervision is .30. The effect size for the Program Only group vs Low Supervision is .23.

Significant gains in academic performance (grades) was found for the Program Plus Group (effect size = .25) vs the Low Supervision group.

## Elementary School Students

### Social Outcomes

#### Program Plus vs Low Supervision

- Gains in social skills
- Gains in prosocial behaviors
- Reductions in misconduct
- Reductions in aggression

#### Program Only vs Low Supervision

- Gains in social skills
- Gains in prosocial behaviors
- Reductions in misconduct
- Reductions in aggression

## Middle School Students

### Standardized Test Scores

Significant gains in math scores over two years

Program Only vs Low Supervision - 12 percentiles

Program Plus vs Low Supervision - 12 percentiles

Effect sizes for math gains

Program Only vs Low Supervision -  $d = .56$

Program Plus vs Low Supervision -  $d = .57$ .

These effects are comparable to the effect sizes on reading skills (.43 to .68) reported by a well-known reading intervention (Success for All).

The Promising After-School Program effects are more than twice as large as effects on test scores reported for Tennessee study which reduced class sizes from 23 students to 15 students.

## Middle School Students

### Academic-related Skills

Program Only vs Low Supervision  
– Work habits (effect size = .20)

Program Plus vs Low Supervision  
– Work habit (effect size = .33)

## Middle School Students

### Social Outcomes

#### Program Plus vs Low Supervision

Reductions in misconduct (effect size = .64)

Reductions in substance use (effect size = .67)

#### Program Only vs Low Supervision

Reductions in misconduct (effect size = .55)

Reductions in substance use (.47)

## Conclusions

- The two year outcome findings suggest that high quality after-school programs (alone and in combination with other activities) are linked to gains in math achievement and work habits, and reductions in misconduct in both elementary and middle school students.
- Additional 2-year gains are found for elementary students in social skills, prosocial behaviors, and reduced aggression.
- Regular participation in high quality programs was associated with reductions in substance use in middle school students.
- These findings suggest that after-school programs can serve as a protection against the dangers and risks associated with unsupervised time.