



JOHNS HOPKINS  
BLOOMBERG  
SCHOOL of PUBLIC HEALTH

Protecting Health, Saving Lives – *Millions at a Time*



# Update on Key Findings from Project Target

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*Johns Hopkins Center for the Prevention of Youth Violence*

*In Collaboration with the Maryland State Department of Education,  
Sheppard Pratt Health System, & the Maryland State Leadership Team*

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# Randomized Trial of SWPBIS: *Project Target*

## Funding

- Centers for Disease Control & Prevention (CDC; Leaf, PI)
- National Institute of Mental Health (NIMH; Leaf PI)

## Sample

- 37 voluntary elementary schools across 5 school districts
  - Enrollment 227-983; 60% Caucasian; 48% suburban; 41% urban fringe; 49% Title I

## Design

- Group randomized effectiveness trial
  - 21 PBIS & 16 “Focus/Comparison”
- Baseline plus 4 years (spring 2002 - spring 2007)
  - Data from 29,423 students & 3,563 staff



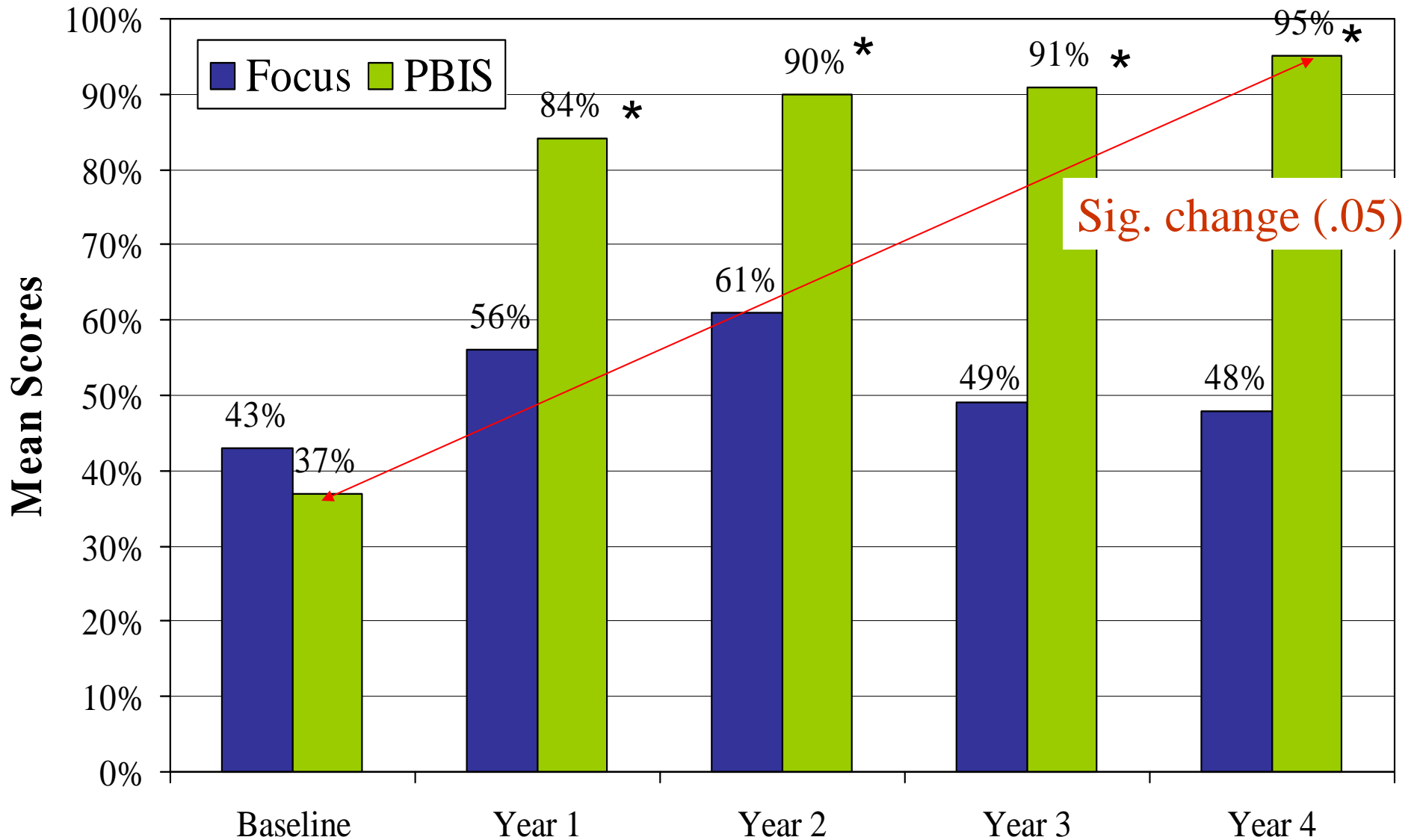
**Project Target**

# Data Collected



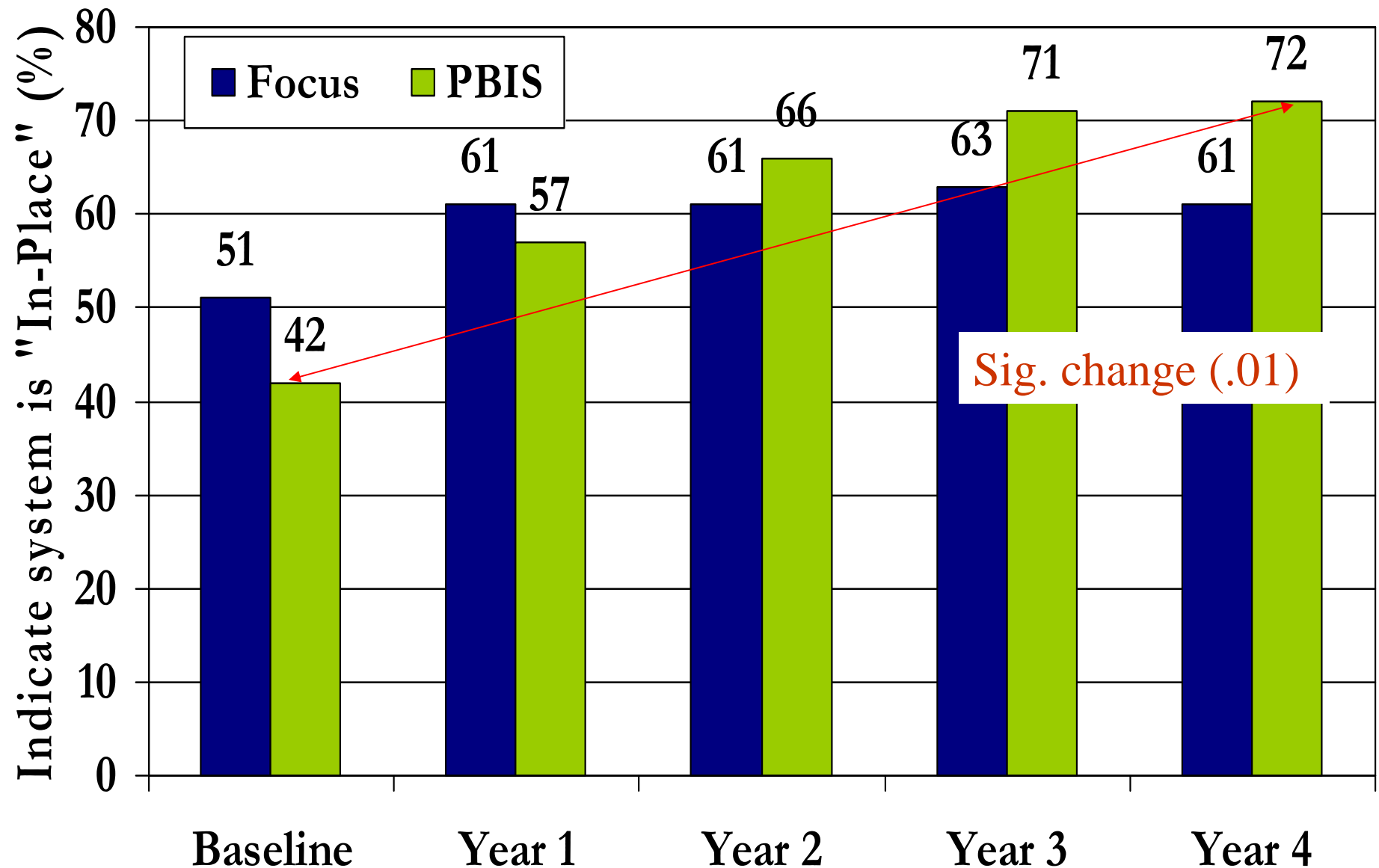
- **Implementation fidelity**
    - School-wide Evaluation Tool (SET; Sugai, Lewis-Palmer, Todd, & Horner, 2001)
    - Effective Behavior Support Survey (Self-assessment; Sugai, Todd, & Horner, 2000)
  - **Organizational health**
    - Organizational Health Inventory (OHI; Hoy et al., 1990)
  - **School climate**
    - School Climate Survey (Haynes, Emmons, & Comer, 1994)
  - **Disruptive behavior**
    - Teacher Observation of Classroom Adaptation (TOCA; Werthamer-Larsson et al., 1991)
    - Student Interactions in Specific Settings (SISS; Cushing & Horner, 2002)
    - Office discipline referrals (SWIS; School-Wide Information System)
    - Suspensions (school-level)
  - **Academic information**
    - State standardized test scores (school-level)
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# Fidelity: School-wide Evaluation Tool (SET)



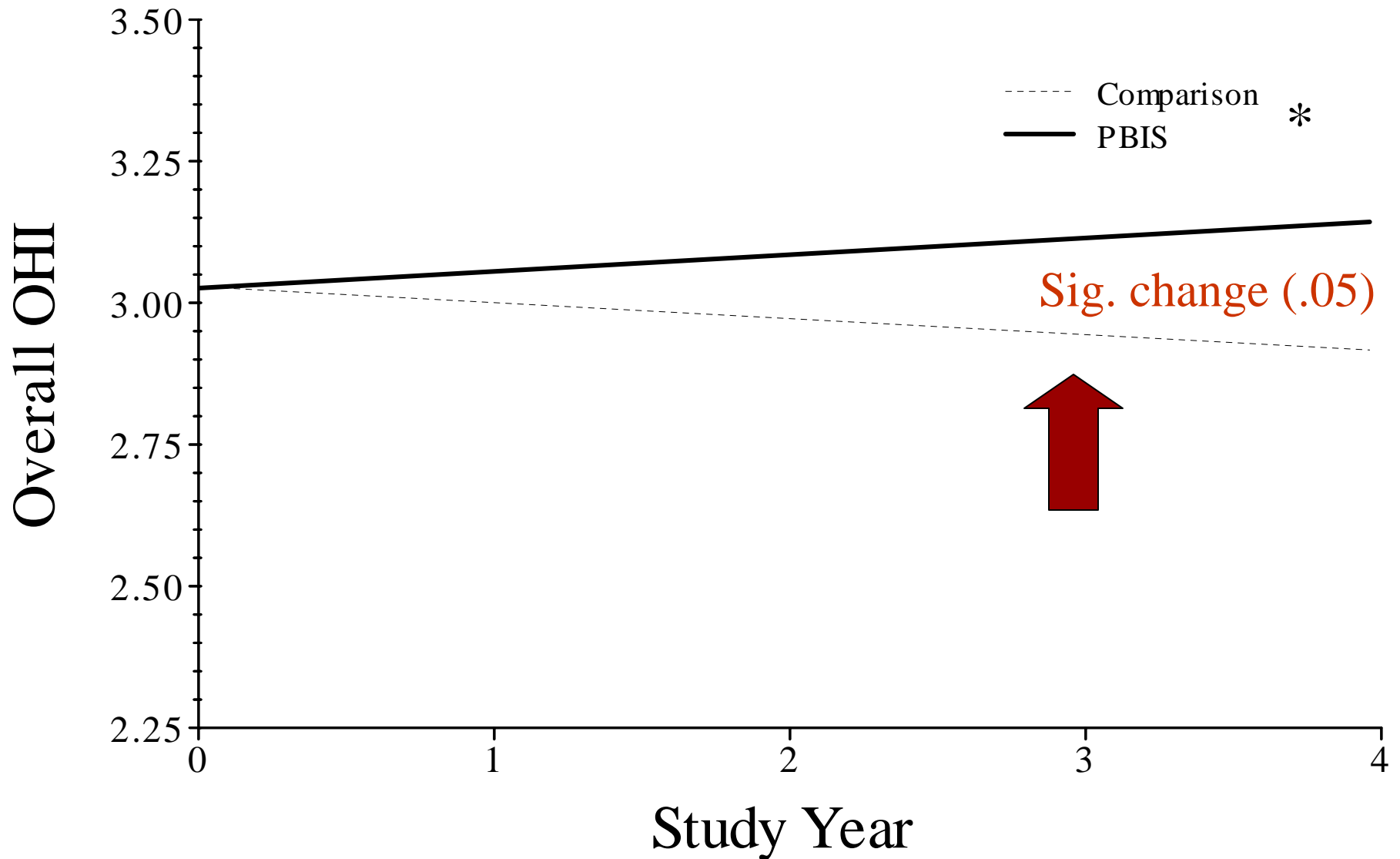
Note. \* indicates significant difference,  $p < .05$ , unadjusted means. (Bradshaw et al., 2008; *ETC*)

# Effective Behavior Support Survey (EBS) (*adj*)



Repeated measures GLM, baseline vs. year 4, sig. intervention effect:  $F(1,28) = 14.36, p=.001$ ; *adj*= controlled for student mobility, school enrollment, % Caucasian, % FARMs, student-teacher ratio, & cohort.

# Effect of PBIS on Overall OHI

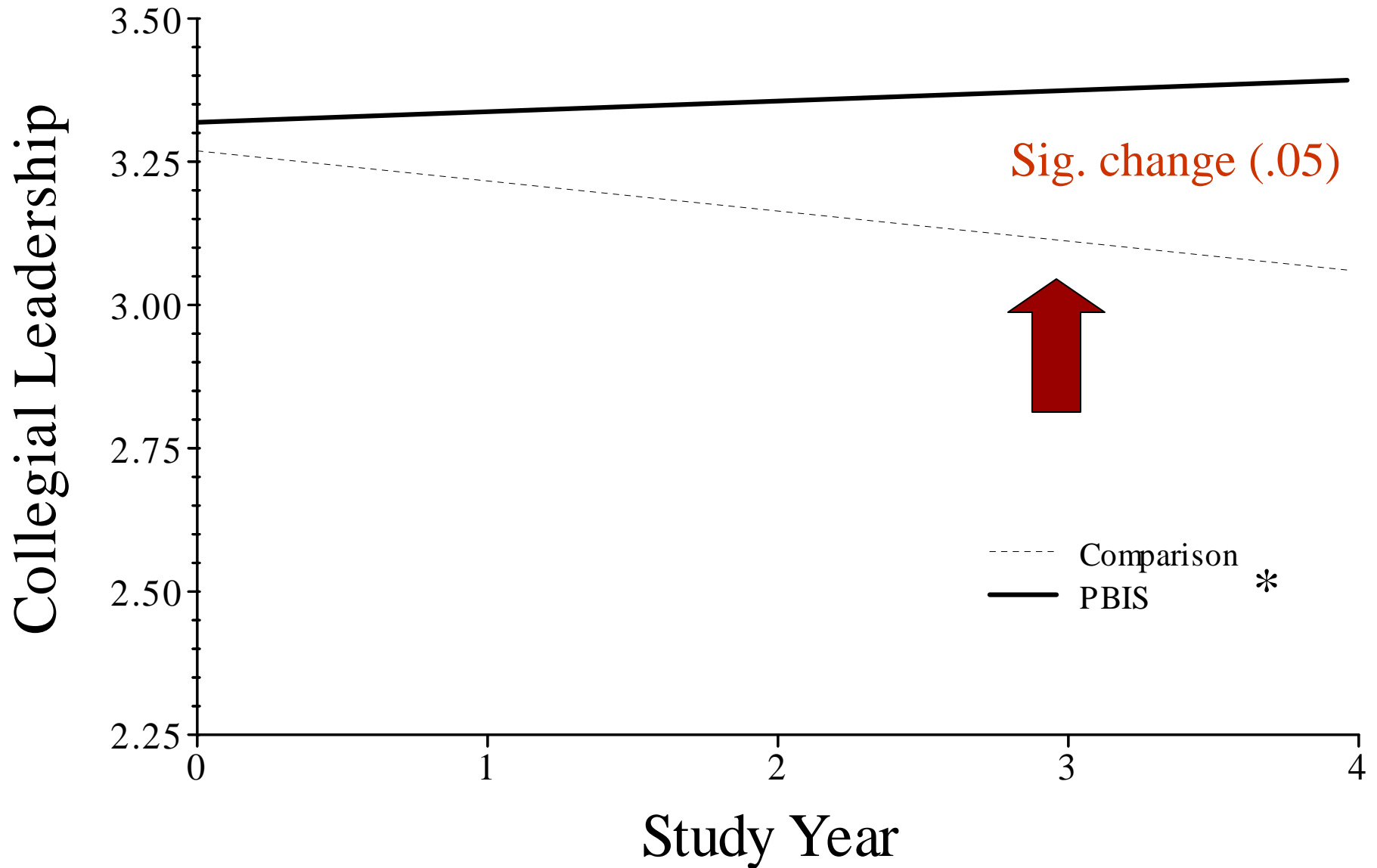


Note. Adjusted means from 3-level model.

\* Intervention effect on slope of overall OHI significant at  $p < .05$ .

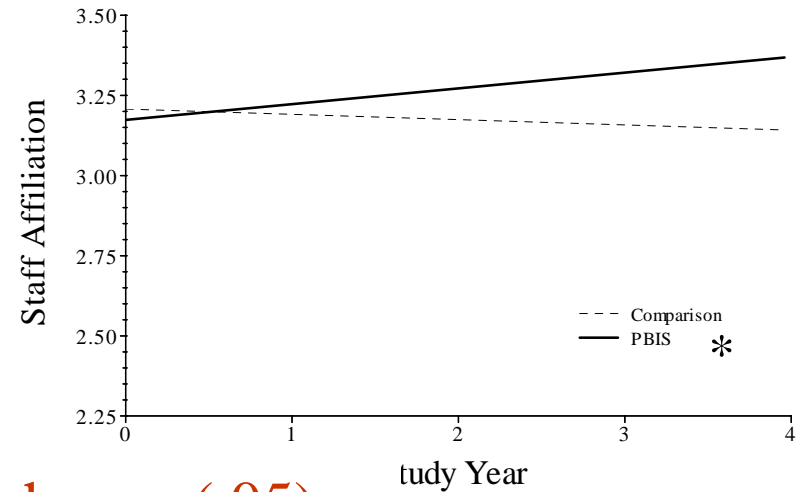
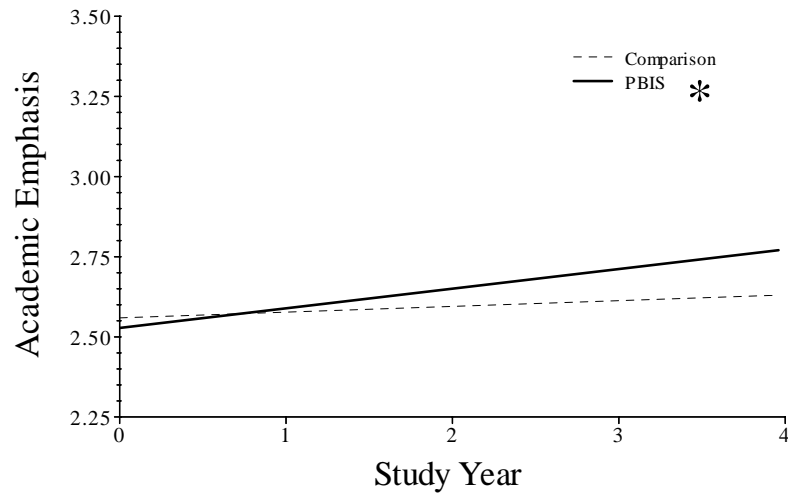
(Bradshaw et al., in press; *SPQ*)

# Effect of PBIS on Collegial Leadership

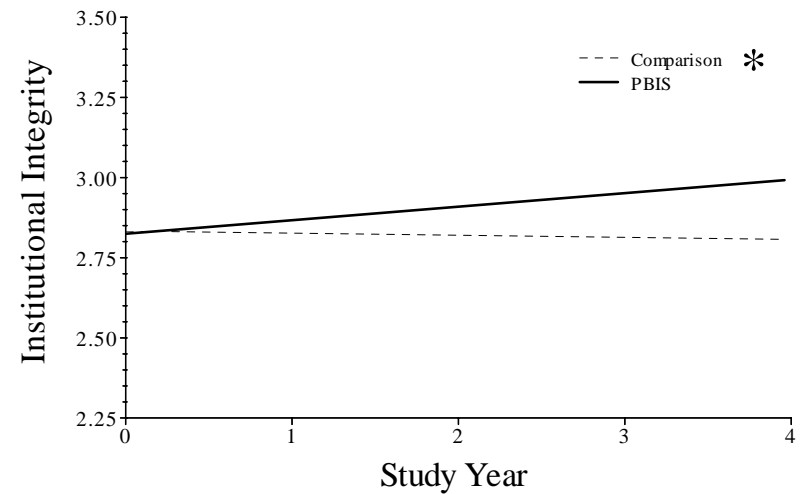
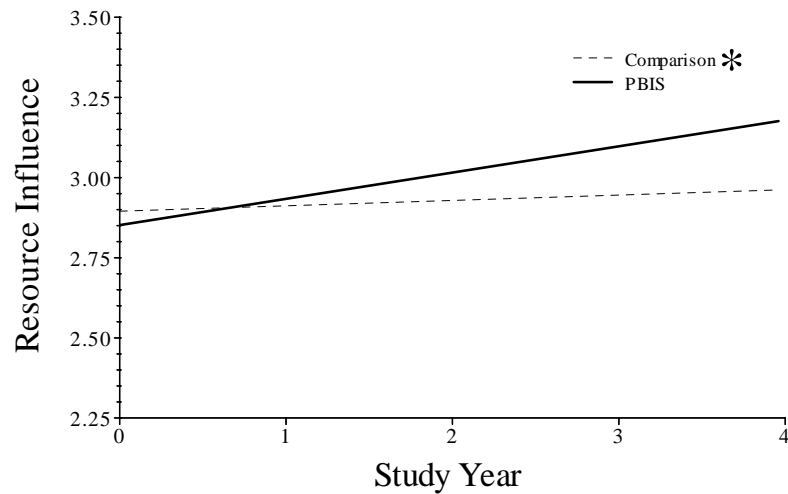


Note. Adjusted means from 3-level model. \* Intervention effect on slope significant at  $p < .05$ .

# Effect of PBIS on Other OHI Subscales



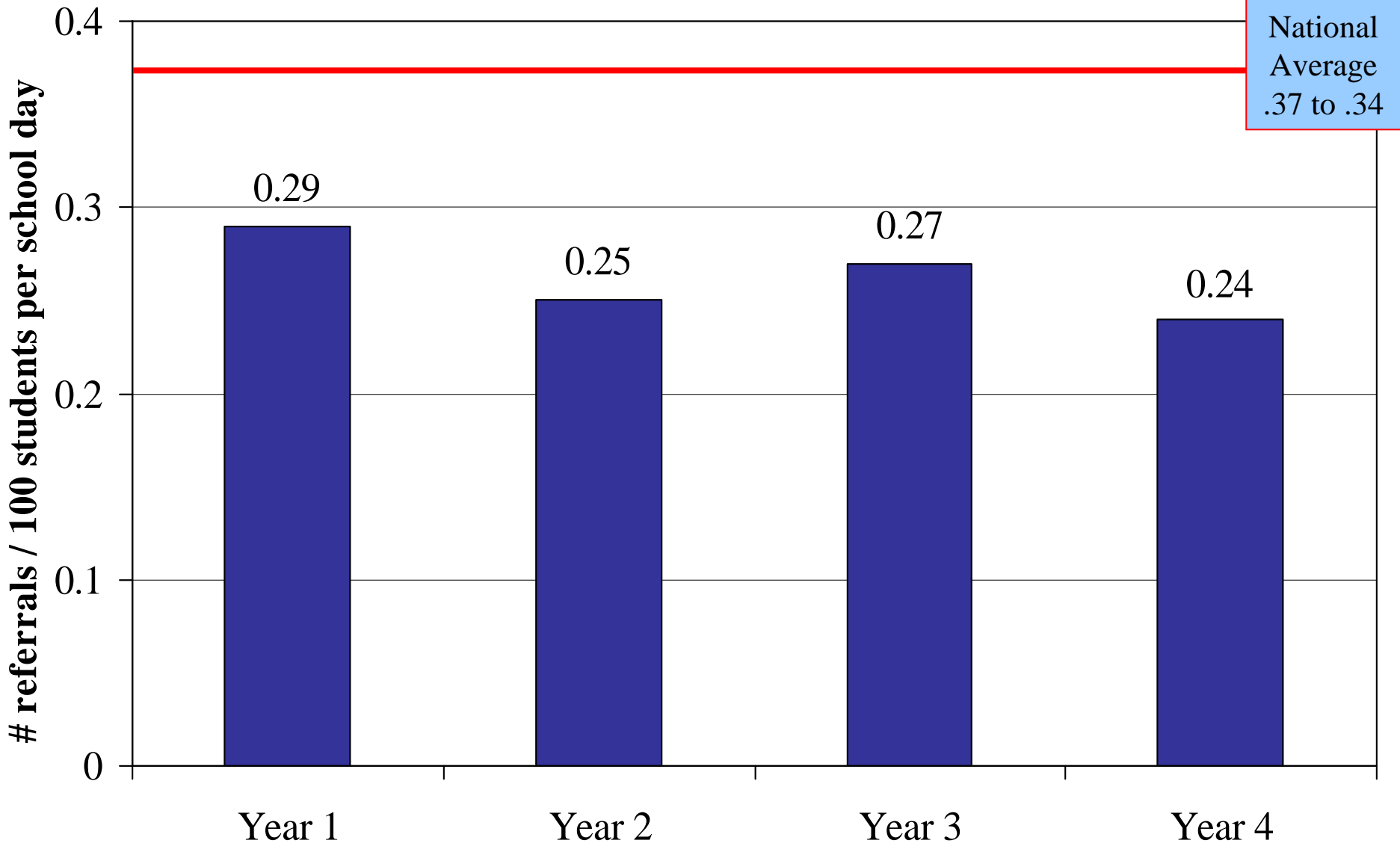
All Sig. change (.05)



Note. Adjusted means from 3-level model. \* Intervention effect on all slopes significant at  $p < .05$ .



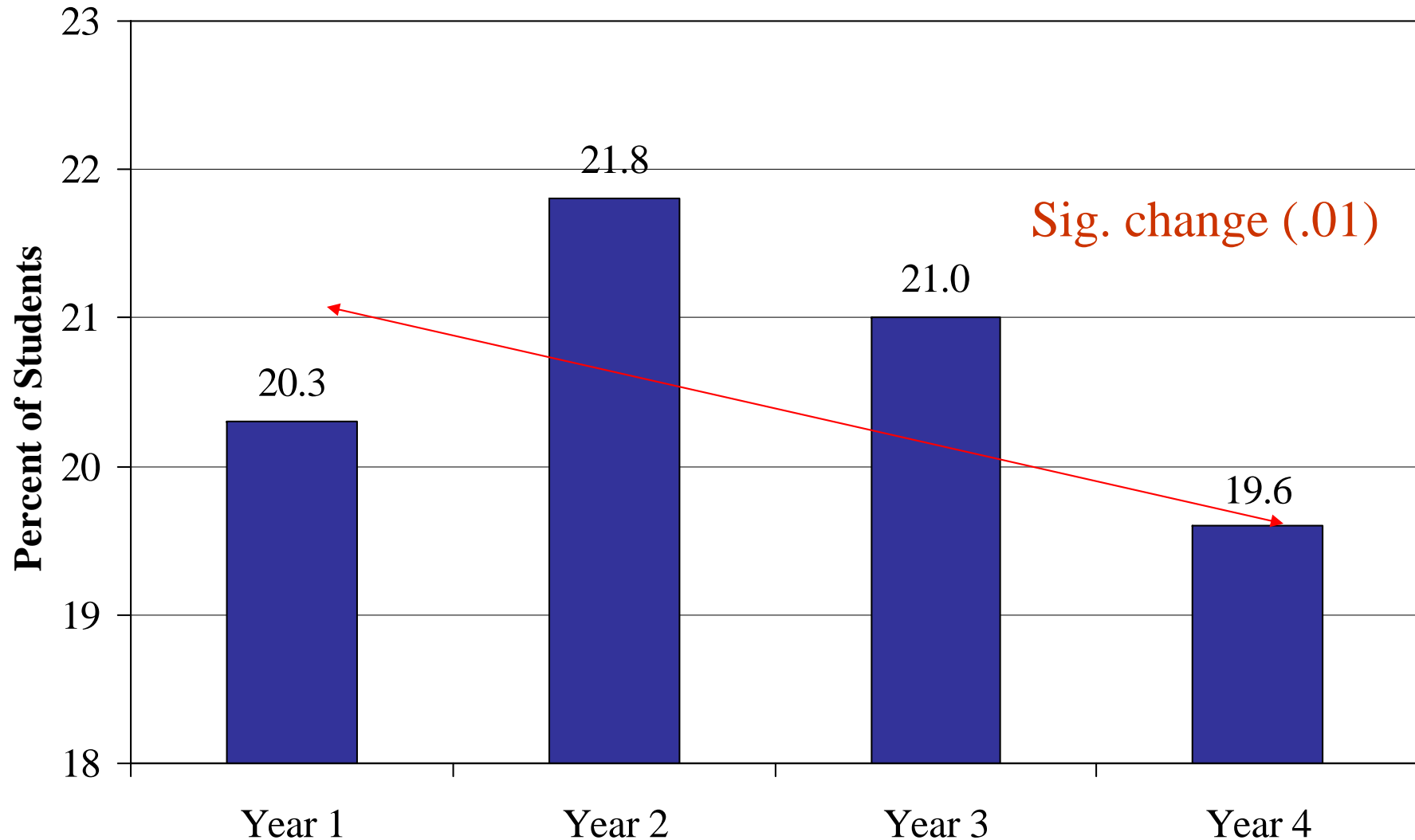
# Major Office Discipline Referrals



Note. N= 21 PBIS schools. ODR data not available from Focus schools

# Office Discipline Referrals

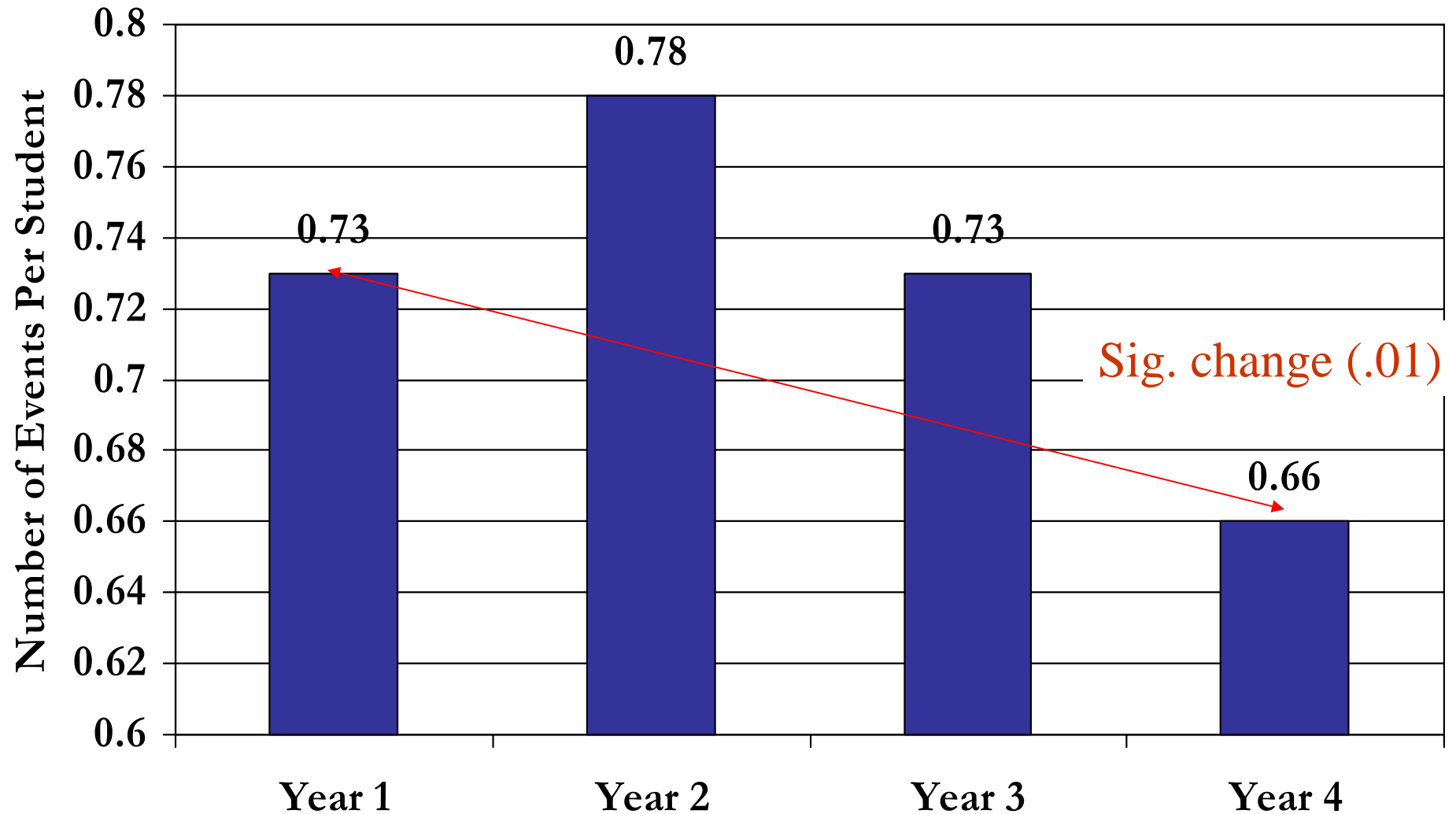
(% Students with A Major or Minor ODR) (*Adj*)



$N=21$  PBIS schools. Repeated measures GLM  $F(1,17)=10.93$ ,  $p<.01$ , Adj = controlling for cohort, % Caucasian, & % male.

# Office Discipline Referrals

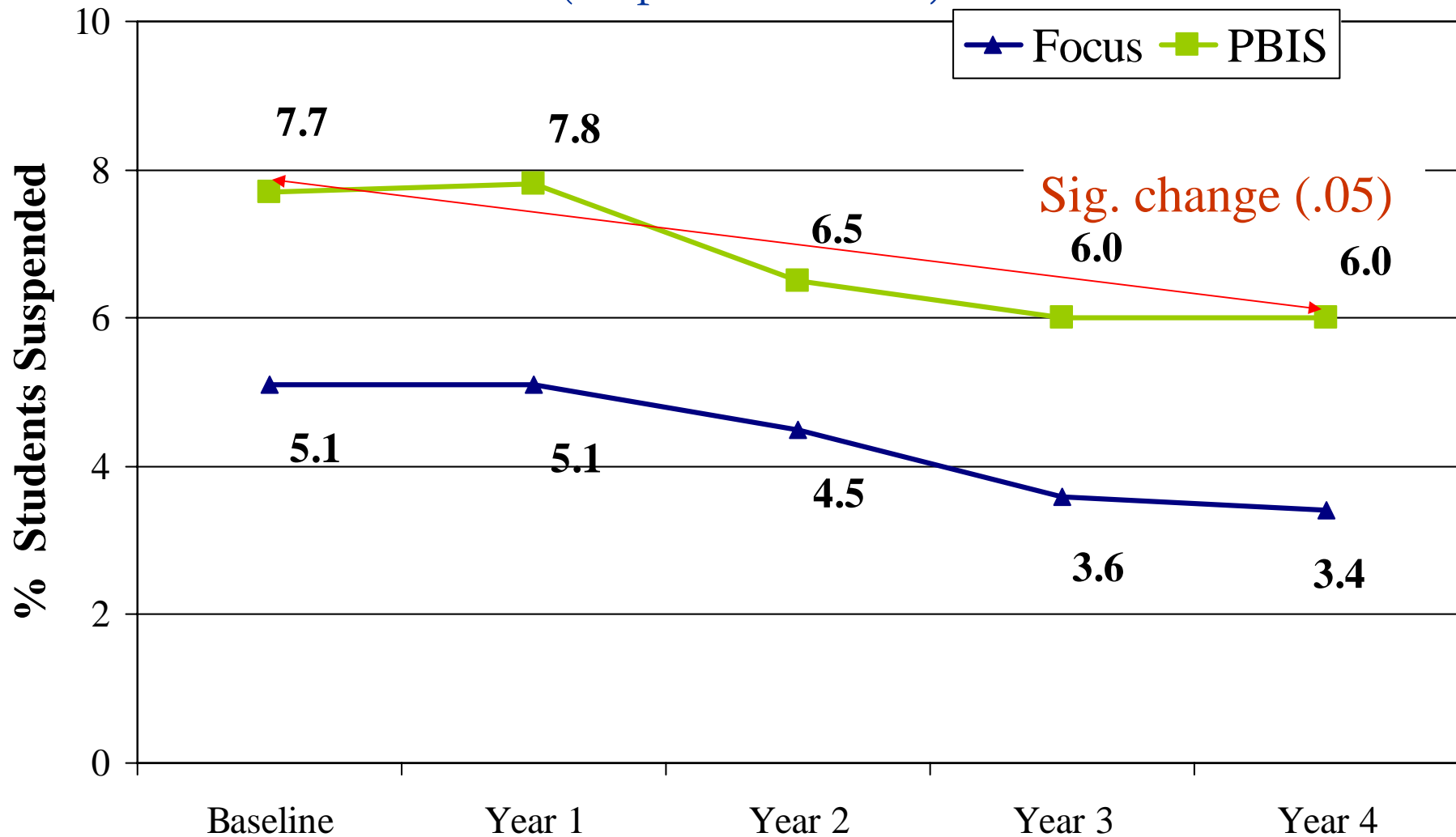
(Major and Minor Events per Student) (*Adj*)



PBIS only (N=21). Repeated measures GLM,  $F(1,18)=8.24$ ,  $p=.01$ , Adj = controlled for cohort & % male.

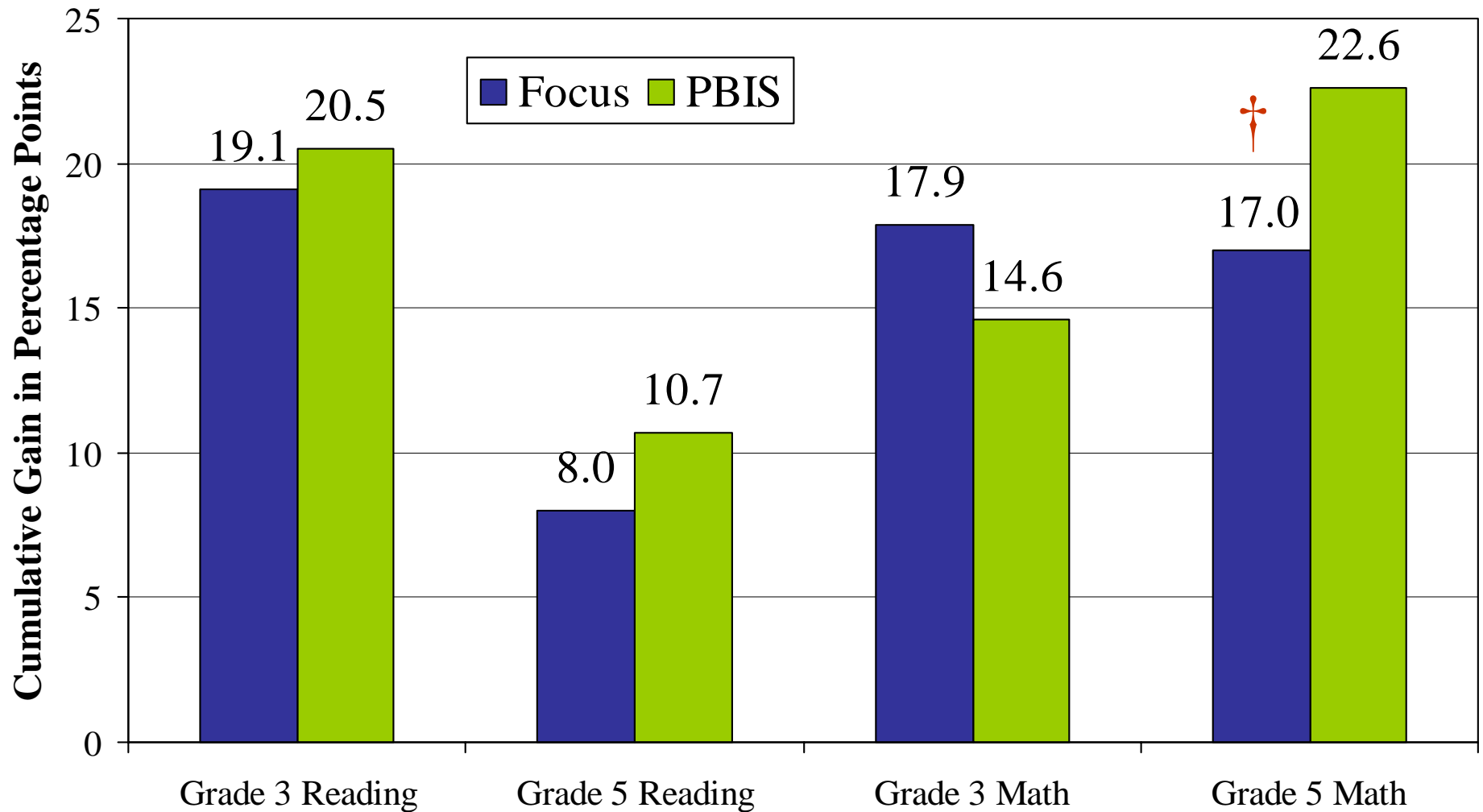
# % Students with a Suspension Event

(Duplicated Count)



School-level data from MDSE. Wilcoxon test: (PBIS)  $Z = -2.17$ ,  $p = .03$ ; (Focus)  $Z = -1.54$ ,  $p = \text{n.s.}$

# Achievement Data (MSA): School Level (% Prof. + % Adv.)



Cumulative gain in improvement in MSA between Year 1 & 4. Baseline data not available. †T-test for Grade 5 math:  $t = -1.67$ ,  $df = 35$ ,  $p = .105$ .

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# Summary of Preliminary Findings

## *Main Effects*

- PBIS schools reached & sustained high fidelity
  - PBIS increased all aspects of organizational health
  - Positive effects/trends for student outcomes
    - Fewer students with 1 or more ODRs (majors + minors)
    - Fewer ODRs (majors + minors)
    - Fewer suspensions (-1/4)
    - Increasing trend in % of students scoring in advanced and proficient range of state achievement test
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# Next Steps

- Few universal interventions have universal effects
    - Analysis of individual student change
      - Explore potential moderators – gender, race, SES, SPED status, grade
      - Variation by developmental trajectories of symptoms
      - Obtain student-level academic data
        - Suspensions, grades, special ed., attendance, and standardized test scores
    - Fidelity as moderator of student & staff outcomes
      - Organizational health & fidelity
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