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



Update on Key Findings from Project Target

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*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



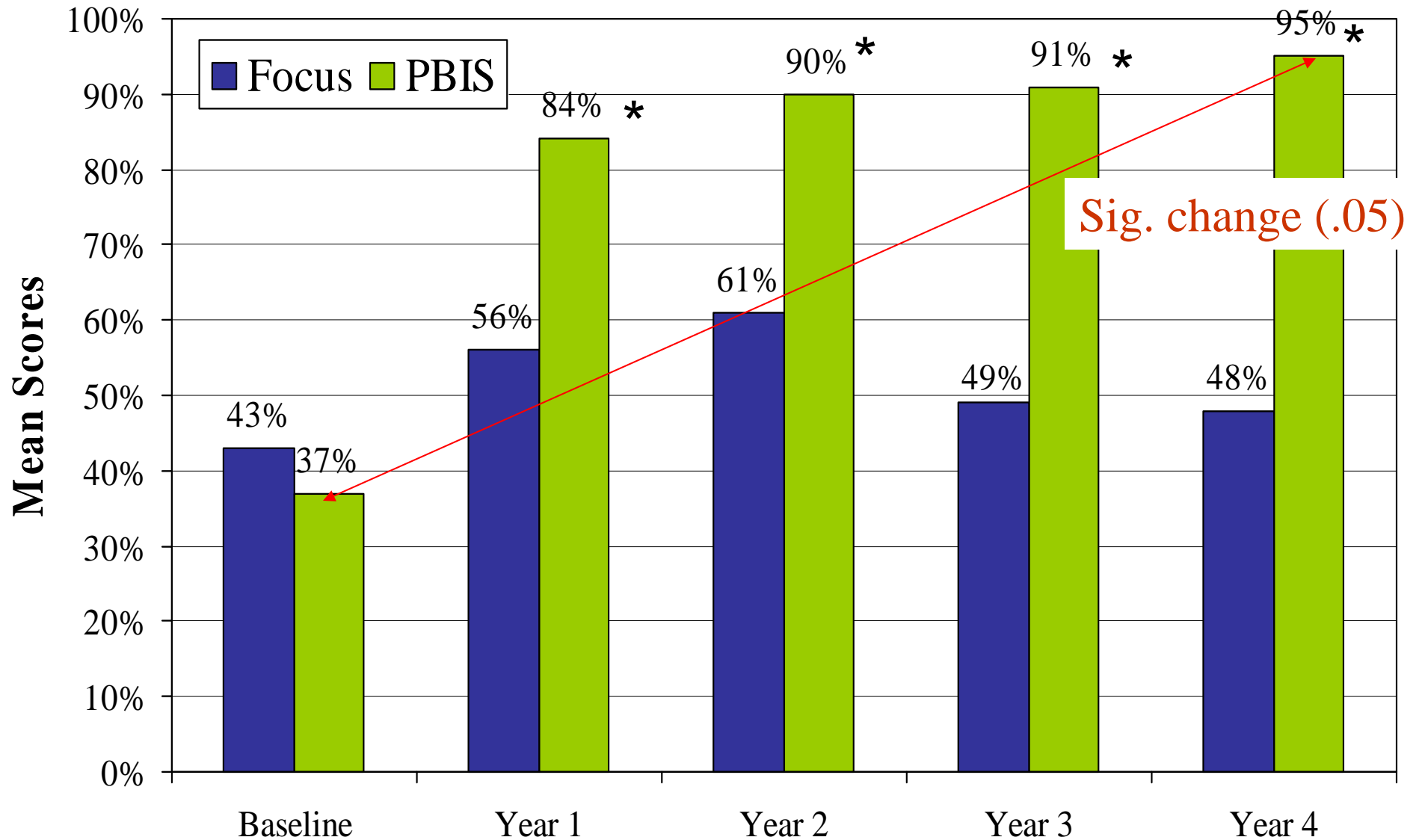
Project Target

Data Collected



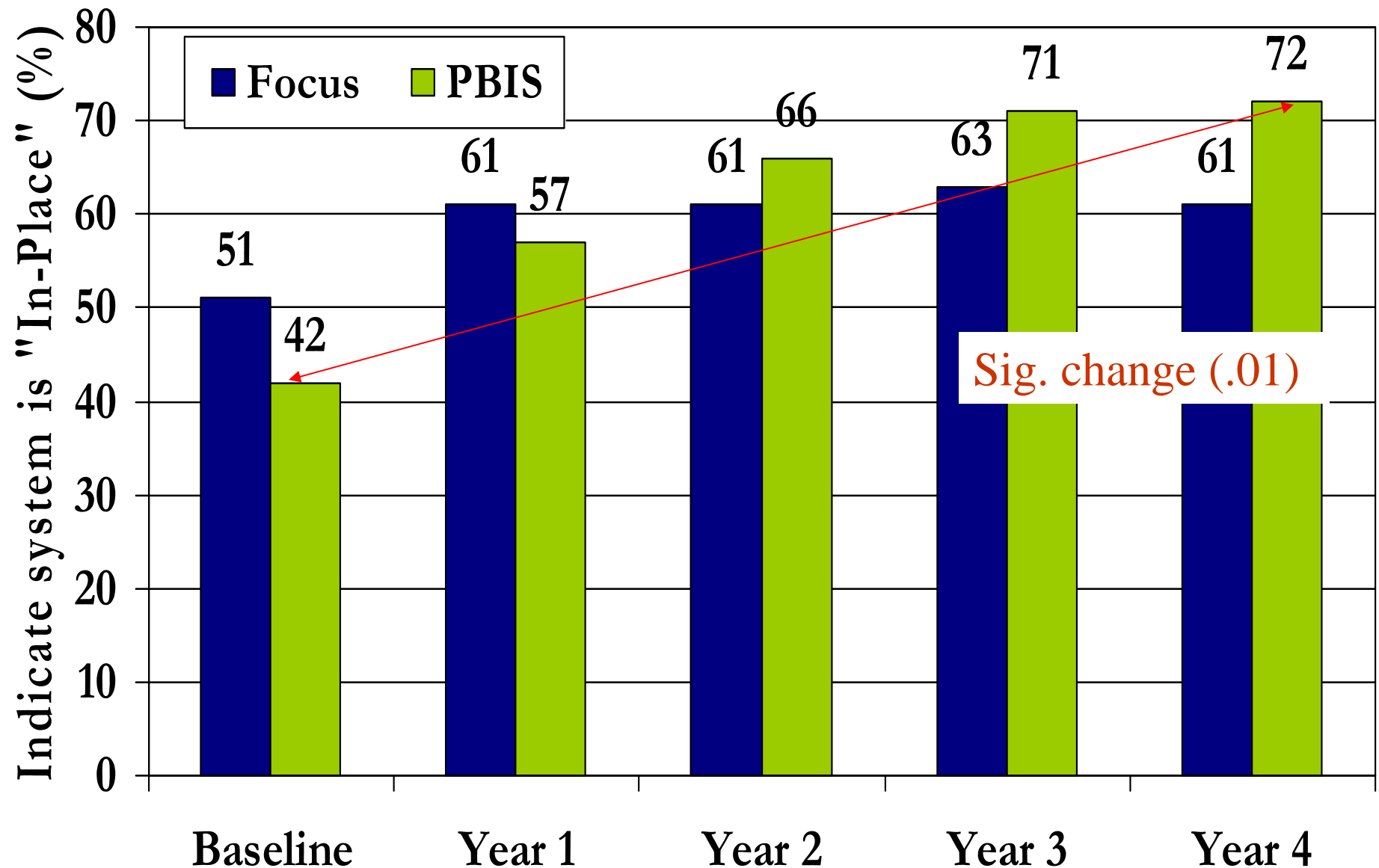
- **Implementation fidelity**
 - School-wide Evaluation Tool (SET; Sugai, Lewis-Palmer, Todd, & Horner, 2001)
 - Effective Behavior Support Survey (Self-assessment; Sugai, Todd, & Horner, 2000)
 - **Organizational health**
 - Organizational Health Inventory (OHI; Hoy et al., 1990)
 - **School climate**
 - 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)
-

Fidelity: School-wide Evaluation Tool (SET)



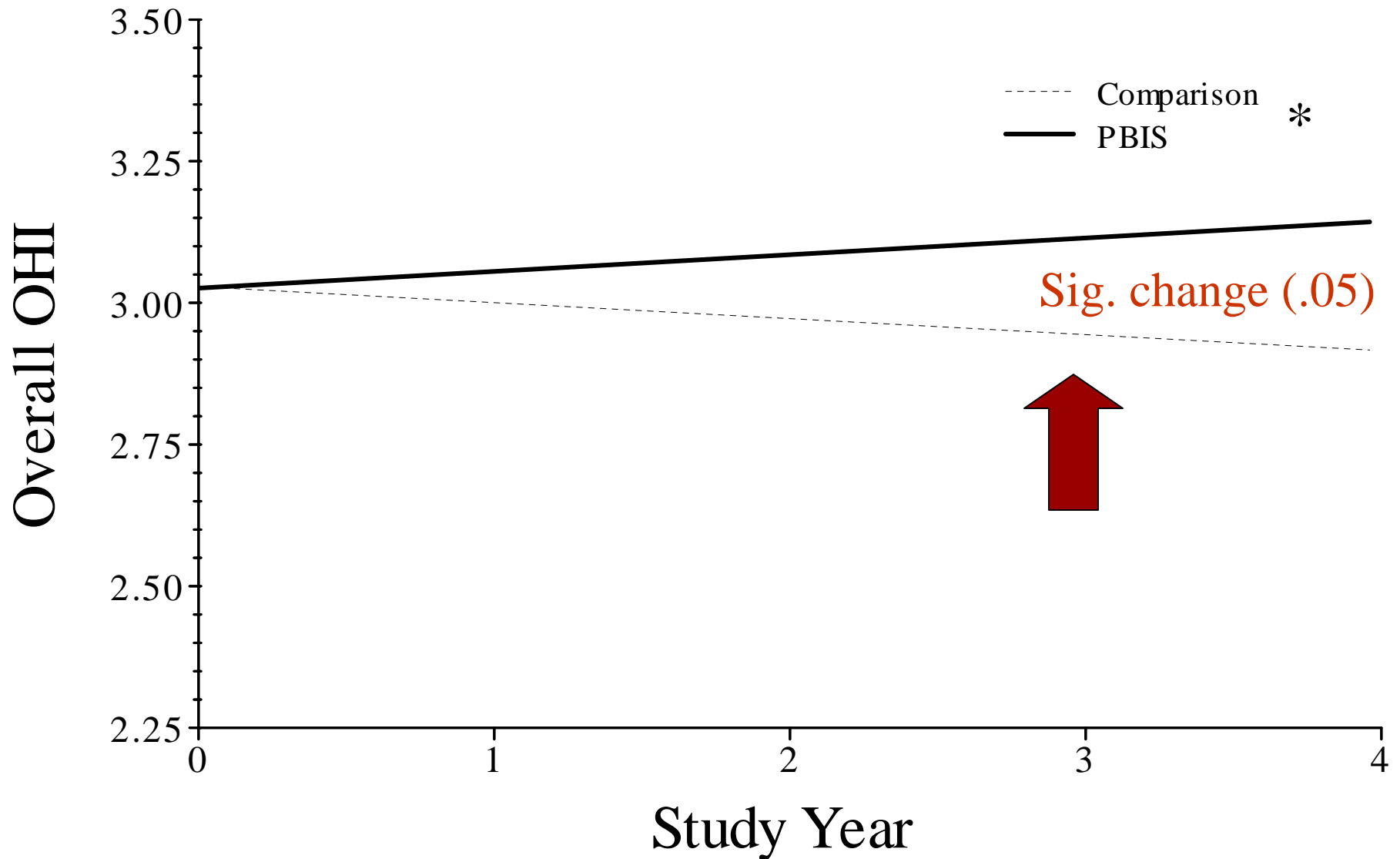
Note. * indicates significant difference, $p < .05$, unadjusted means. (Bradshaw et al., 2008; ETC)

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

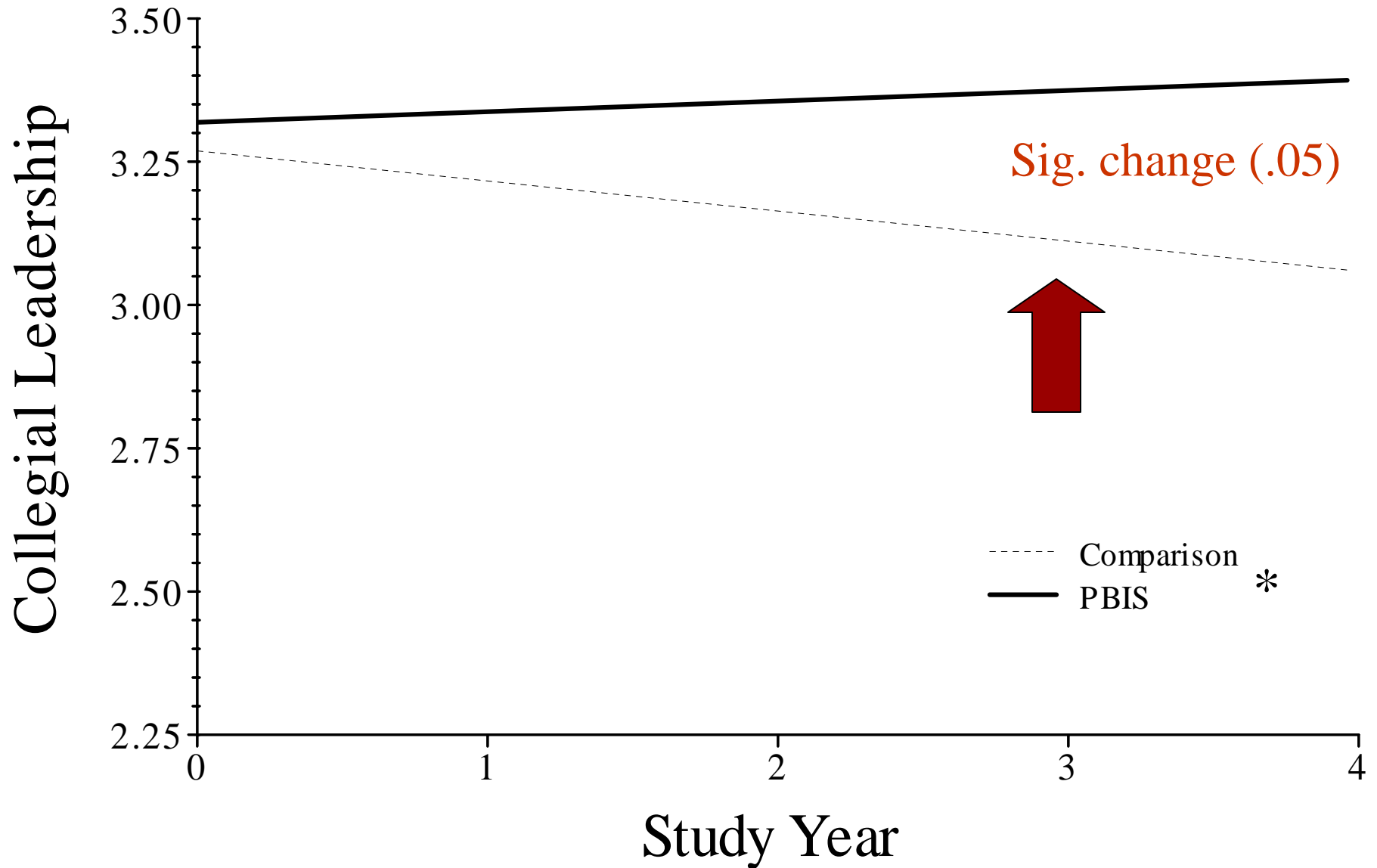


Note. Adjusted means from 3-level model.

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

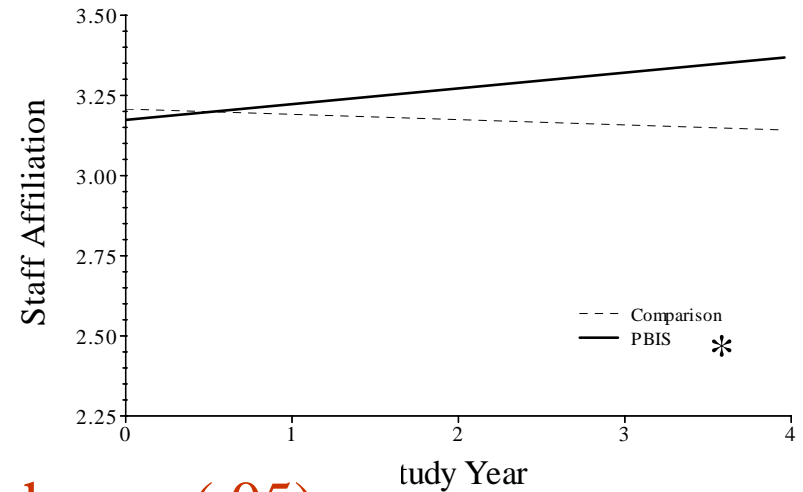
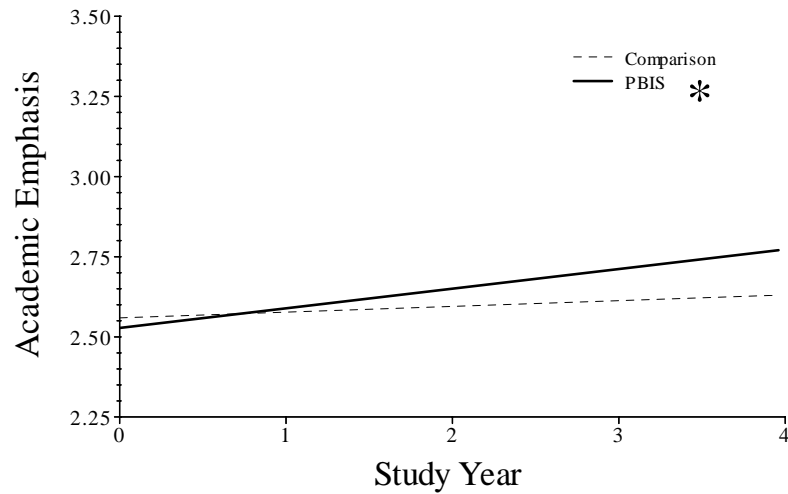
(Bradshaw et al., in press; *SPQ*)

Effect of PBIS on Collegial Leadership

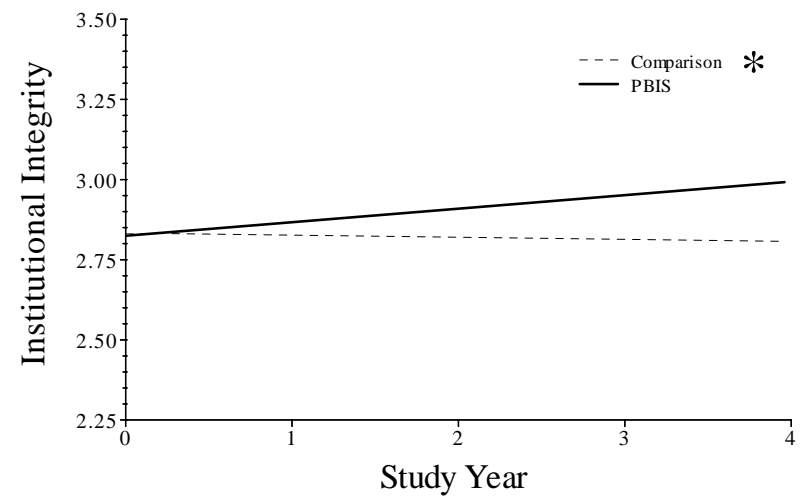
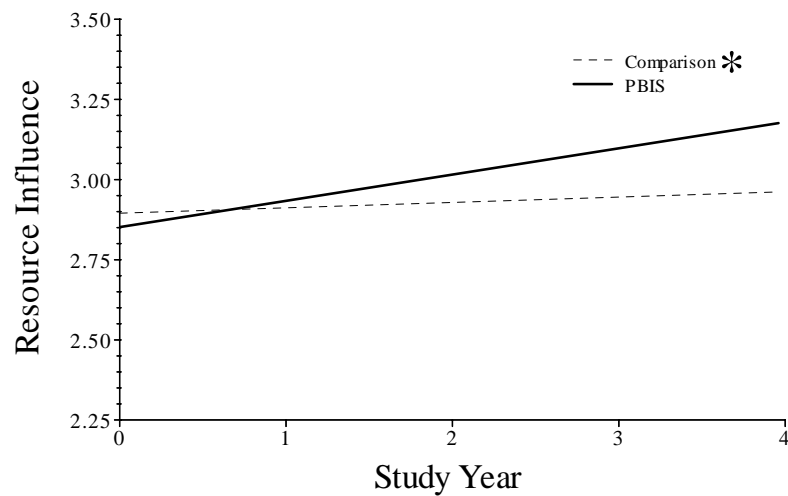


Note. Adjusted means from 3-level model. * Intervention effect on slope significant at $p < .05$.

Effect of PBIS on Other OHI Subscales

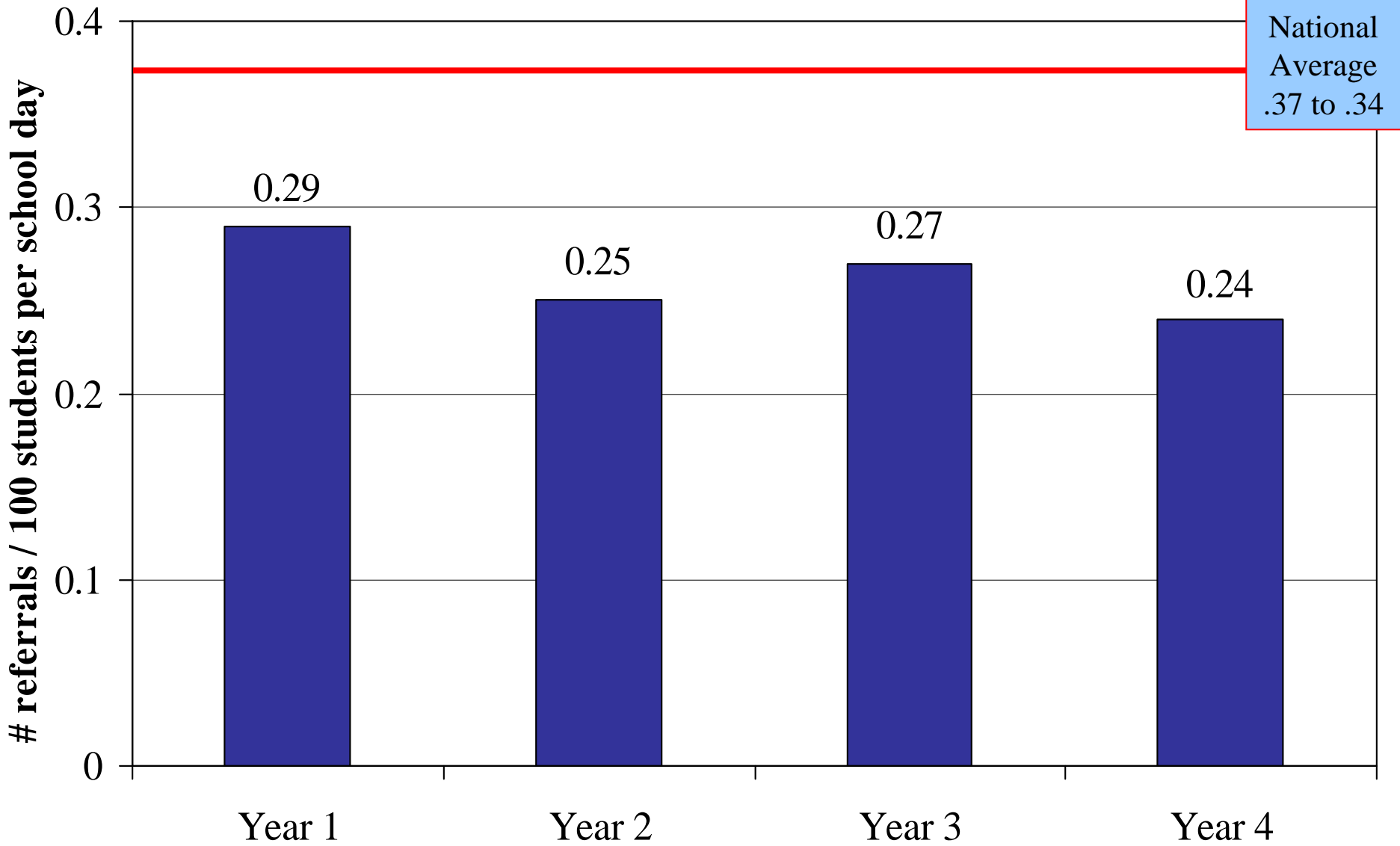


All Sig. change (.05)



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

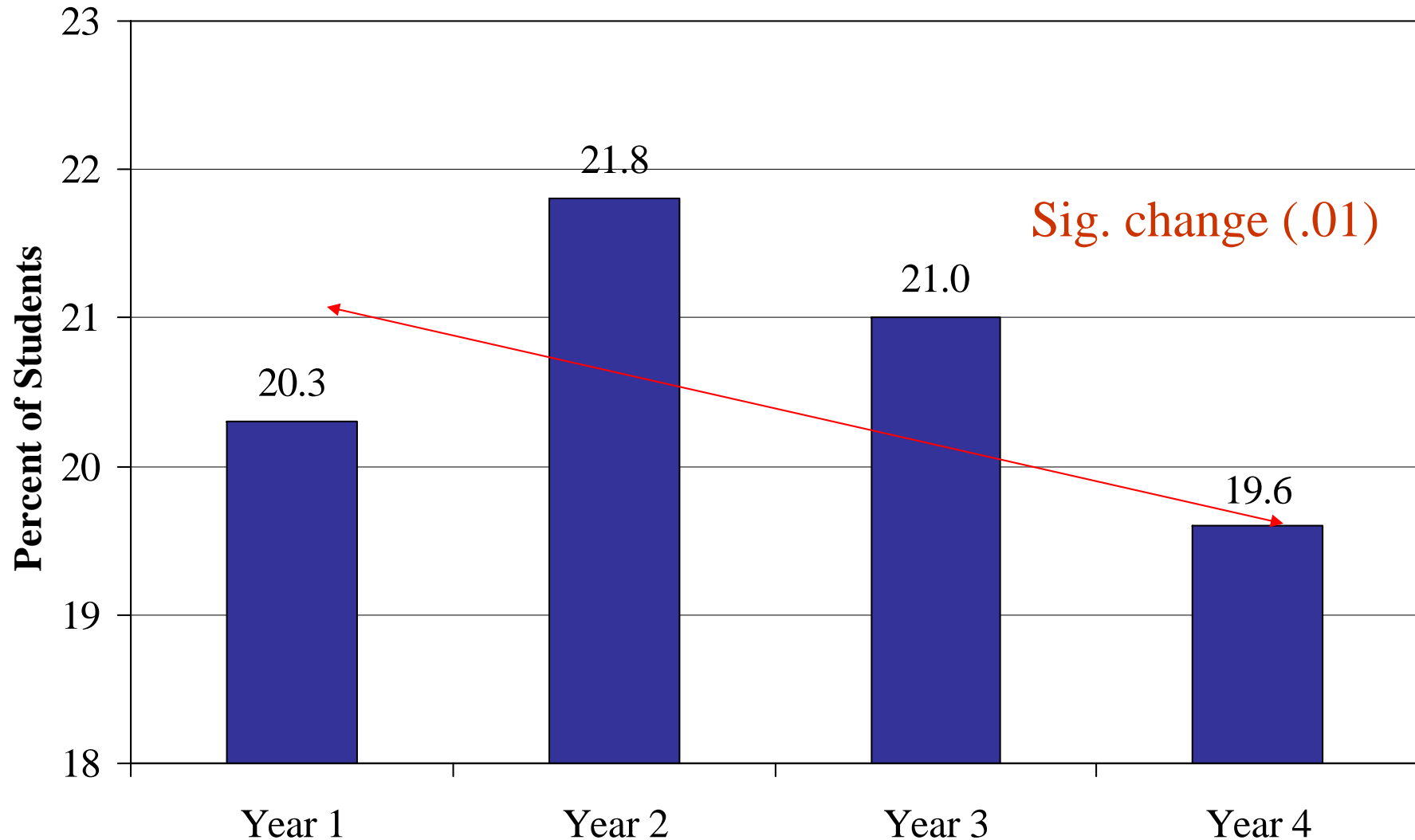
Major Office Discipline Referrals



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

Office Discipline Referrals

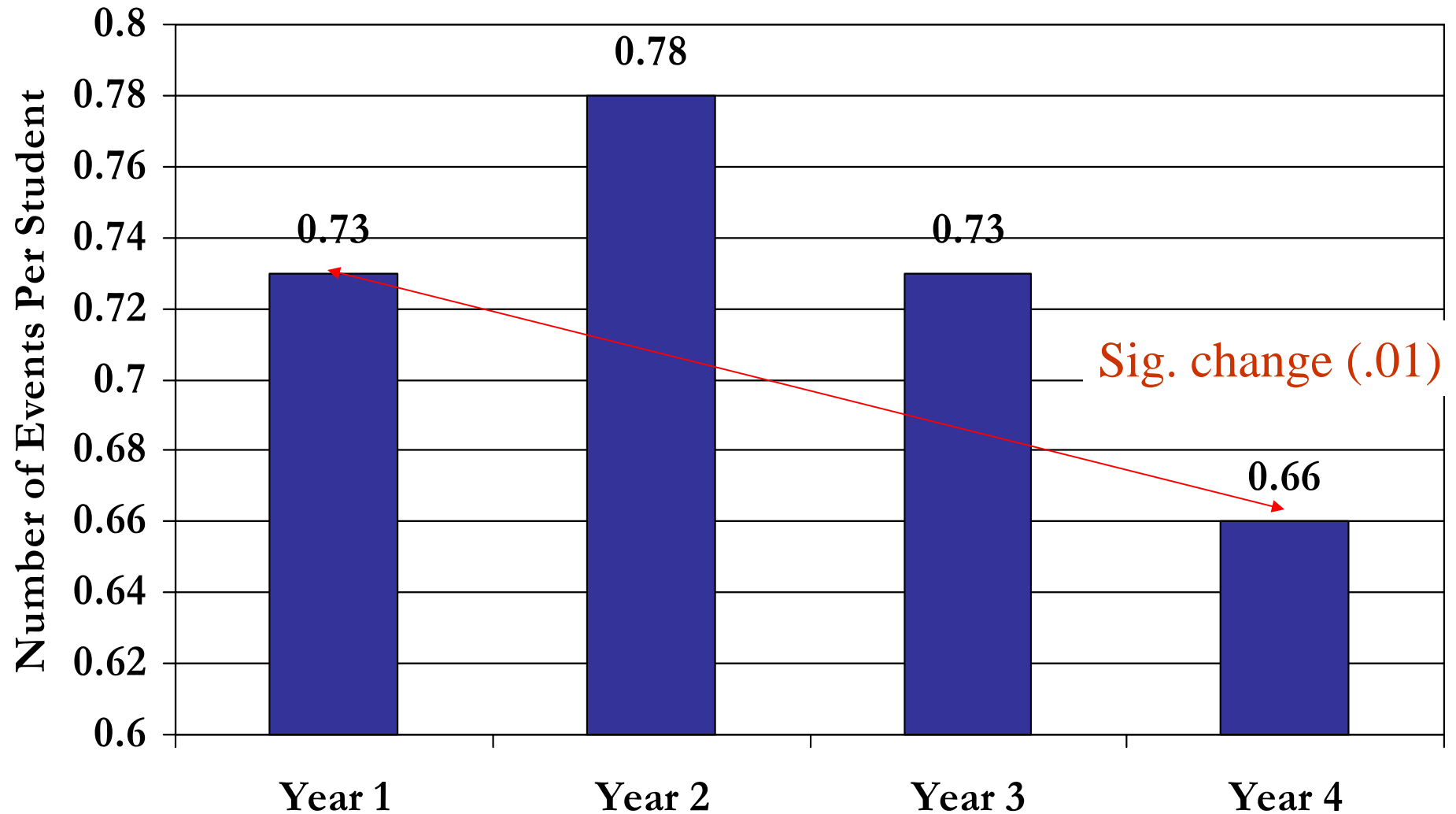
(% Students with A Major or Minor ODR) (*Adj*)



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

Office Discipline Referrals

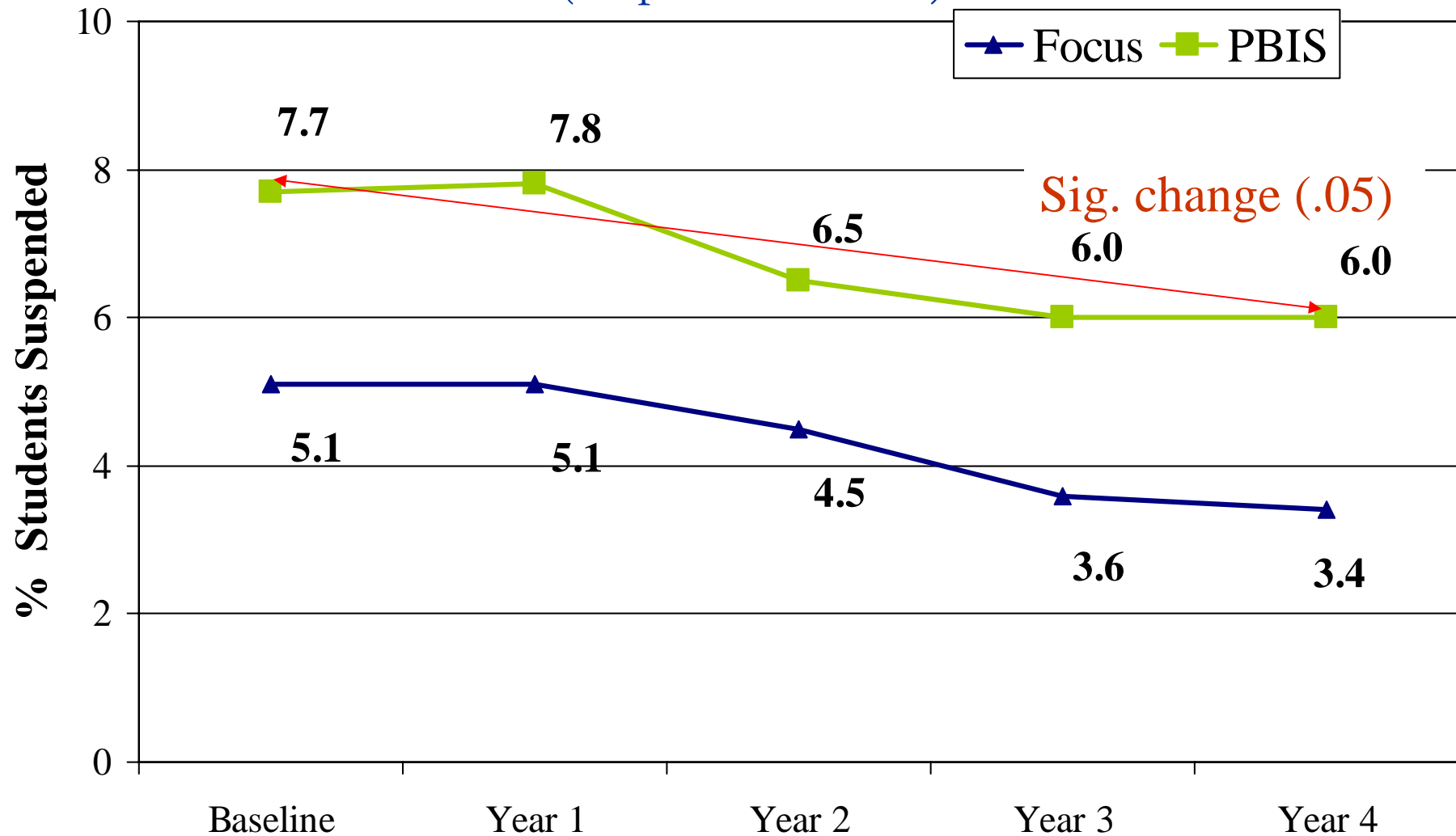
(Major and Minor Events per Student) (*Adj*)



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

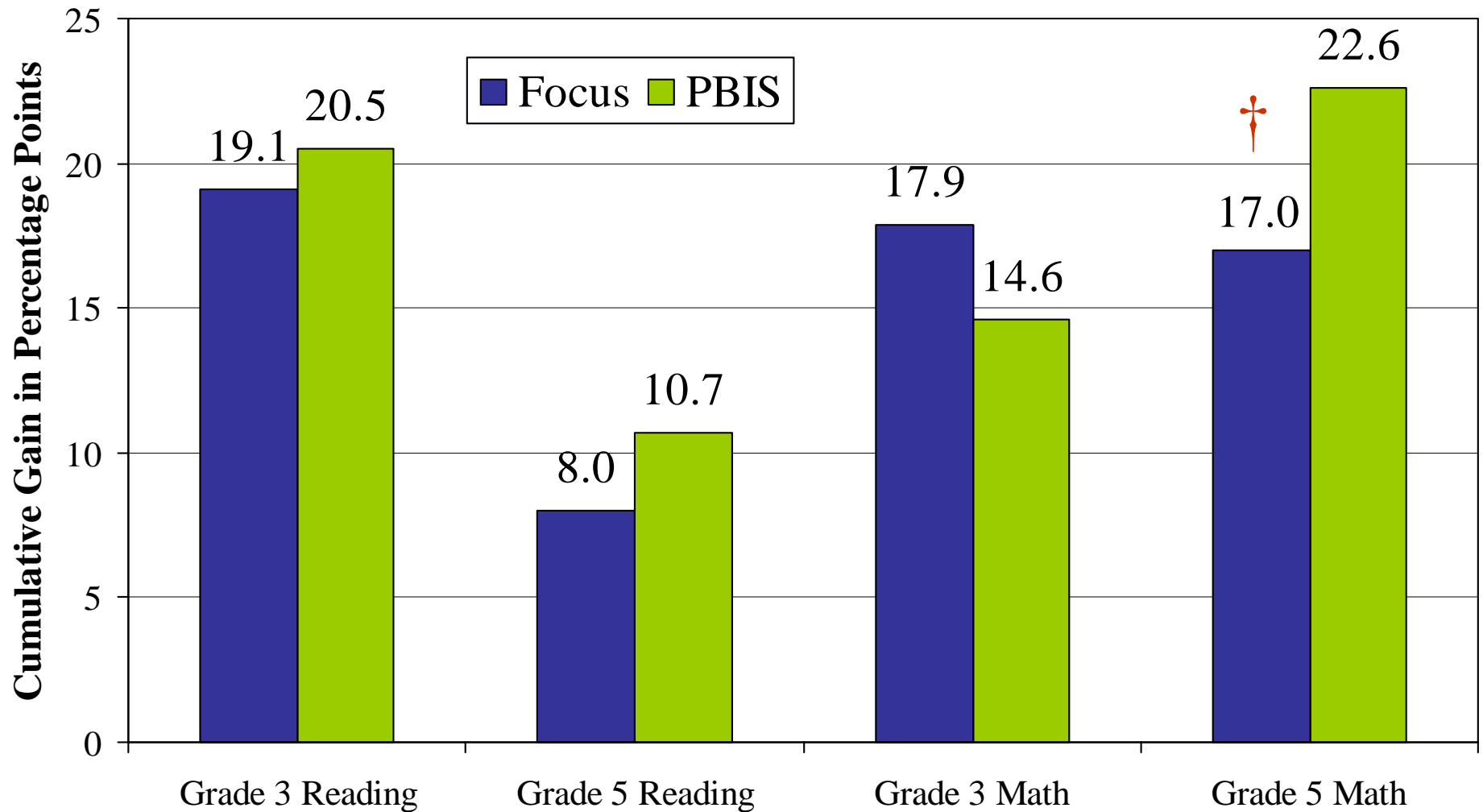
% Students with a Suspension Event

(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: $t = -1.67$, $df = 35$, $p = .105$.

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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