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# **Impact of Playworks on Play, Physical Activity, and Recess: Findings from a Randomized Controlled Trial**

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**MATHEMATICA  
Policy Research**

# Study Team

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# A Brief Introduction to Playworks

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- **Playworks places full-time coaches in low-income schools to provide opportunities for organized play throughout the school day through**
  - Organized recess activities
  - Class game time
  - Junior coach program
- **Playworks activities are designed to**
  - Encourage physical activity
  - Improve quality of play
  - Foster social skills
  - Improve ability to focus on class work
  - Decrease behavioral problems
  - Improve school climate

# Study Components and School Recruitment

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- **Two study components**
  - Impact study
  - Implementation study
- **School recruitment**
  - Targeted schools that were:
    - Eligible for Playworks ( $\geq 50\%$  of students qualify for free or reduced-price lunch)
    - Not currently implementing Playworks, but interested
  - **Multiple geographic regions across the United States**
  - **Study took place over two school years**

# Random Assignment

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- **29 schools from 6 cities recruited**
- **17 schools randomly assigned to the treatment group; 12 to the control group**
  - **Treatment group schools implemented Playworks during 2010–2011 (cohort 1) or 2011–2012 (cohort 2)**
  - **Control group schools were not eligible to implement Playworks until following year**

# Data Sources

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## ■ Impact Study

- Student surveys (4th- and 5th-grade students, N=2331)
- Teacher surveys (1st- through 5th-grade teachers, N=296)
- Administrative records
- Accelerometers (N=1580)
- Structured recess observations

## ■ Implementation Study

- Semistructured recess observations
- Class game time observations
- Interviews with teachers, principals, and coaches
- Focus groups with junior coaches

# Outcome Domains

- We examined the impact of Playworks on 10 domains:

Domains of Focus for Today	Additional Domains
Physical activity	School climate
Recess activities	Conflict resolution and aggression
Recess equipment	Learning and academic performance
Student interactions at recess	Youth development
Perceptions of recess	Student behavior

# Approach for Estimating Impacts

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- **We compared average outcomes in treatment and control schools using regression models.**
- **A multiple comparison adjustment was applied within each domain.**
- **Standard errors accounted for the clustering of students and teachers within schools.**
- **Weights were used in model fitting to account for sampling and nonresponse.**
  - **Unweighted impact estimates yielded similar results**



# Impacts on Physical Activity

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- **We found beneficial impacts of Playworks on:**
  - Accelerometer intensity counts recorded during recess\*
  - An accelerometer-based measure of time spent during recess in vigorously intense activity\*
  - The main recess activity in which students were observed to be engaged
  
- **We found no significant impacts on:**
  - Student and teacher reports about physical activity at recess
  - A physical activity measure based on structured recess scans
  - The number of steps taken at recess (as measured by accelerometer)

\* Impacts were marginally significant

# Impacts on Recess and Play

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- **We found beneficial impacts of Playworks on:**
  - Staff participation in recess activities
  - The number of organized games at recess
  - The availability of recess equipment
  - Teacher-reported recess behavior and readiness for class
  - Teacher-reported student enjoyment of adult-organized activities during recess
  - Teacher-reported student ownership over recess activities
- **We found no significant impacts on:**
  - Student interactions as measured by structured recess observations or the student survey
  - Student-reported enjoyment of recess

# Summary

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- **We found some significant, beneficial impacts related to play, physical activity, and recess based on accelerometers, teacher reports, and recess observations.**
- **We found little evidence of significant impacts based on student reports.**

# For More Information

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- Reports available on the Mathematica website:

<http://www.mathematica-mpr.com/Education/playworks.asp>

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