

# MCP

Mathematics Coaching Program



Patti Brosnan  
Director: Program

Diana Erchick  
Director: Research & Evaluation

<http://mcp-coaching.osu.edu>

# Mathematics Coaching: Impact on Student Proficiency Levels After One Year of Participation

Scott Zollinger

Dr. Patricia Brosnan

Dr. Diana Erchick

Dr. Lei Bao

The Ohio State University  
Mathematics Coaching Program

Partially Funded by the  
Ohio Department of Education



# Impact of MCP on Student Proficiency Levels

## Methodology

- 18 MCP-coached schools vs. 18 non-coached schools
- Schools similar in grade span, enrollment, and typology
- First-year coaches only
- Grade levels 3-8
- OAT Proficiency Levels
  - Advanced
  - Accelerated
  - Proficient
  - Basic
  - Limited
- 2007-2008 OAT Results – Pre-coaching data
- 2008-2009 OAT Results – Post-coaching data



## Grade-Level Number of Students MCP Coached & Non-Coached

Grade	2007-2008 MCP	2007-2008 Non-MCP	2008-2009 MCP	2008-2009 Non-MCP
3	1,113	872	1,116	1,002
4	1,207	927	1,073	911
5	736	927	764	948
6	542	936	538	1,015
7	1,674	1,291	1,567	1,255
8	1,719	1,325	1,691	1,300
Total	6,991	6,278	6,749	6,431

The Ohio State University  
Mathematics Coaching Program

Partially Funded by the  
Ohio Department of Education

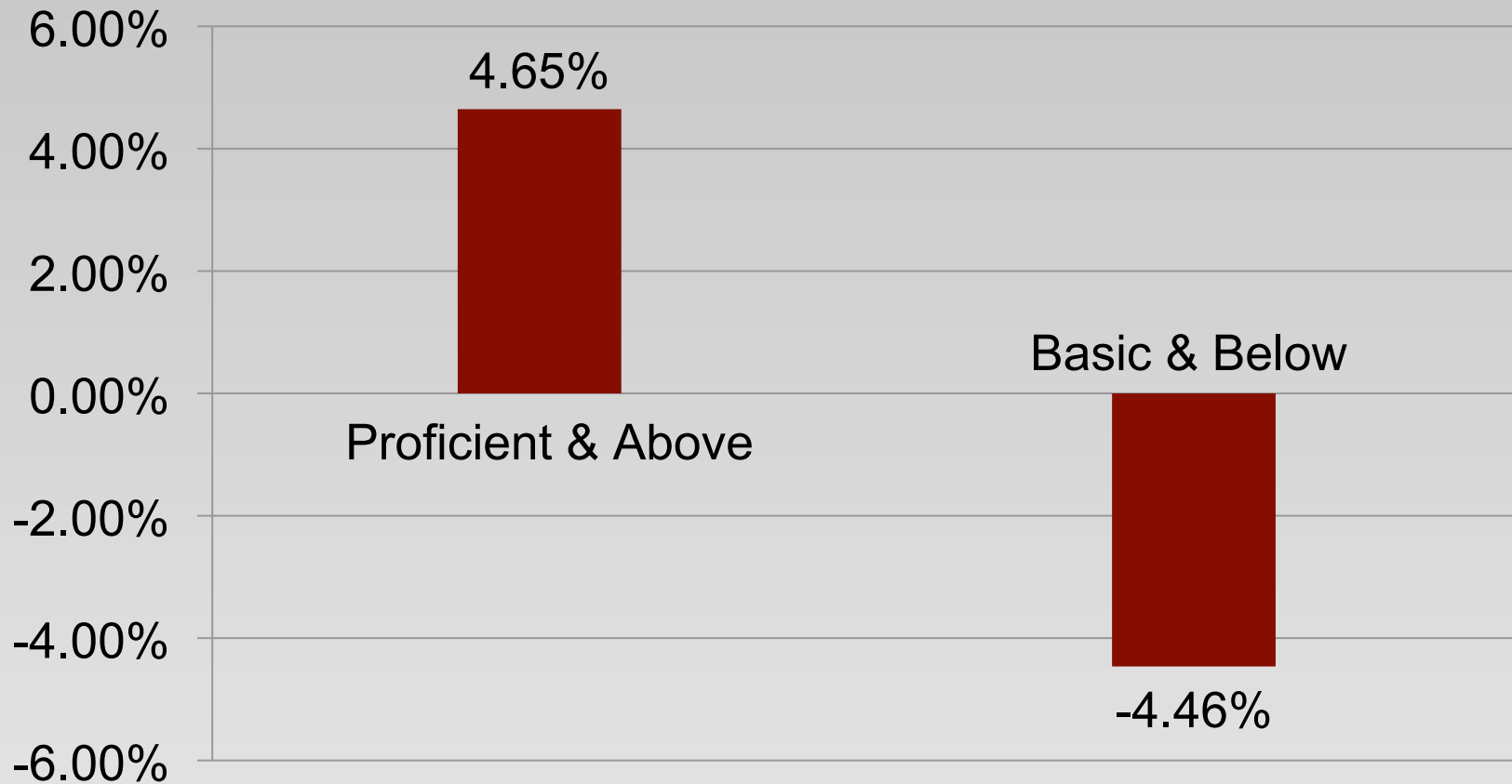


## School Typology: MCP Coached & Non-Coached

Typology Description	# MCP Schools	# Non-MCP Schools
<u>Urban/Suburban</u> , very high median income, very low poverty	3	0
<u>Urban/Suburban</u> , high median income, low to above average poverty	4	1
<u>Major Urban</u> , very high poverty	8	15
<u>Urban</u> , low median income, high poverty	1	1
<u>Rural/Small Town</u> , moderate to high median income, below average poverty	2	0
<u>Rural/Agricultural</u> , low median income, high poverty	0	1



## Grade 3-8 Average of Relative 08-09 Change on Proficient and Above



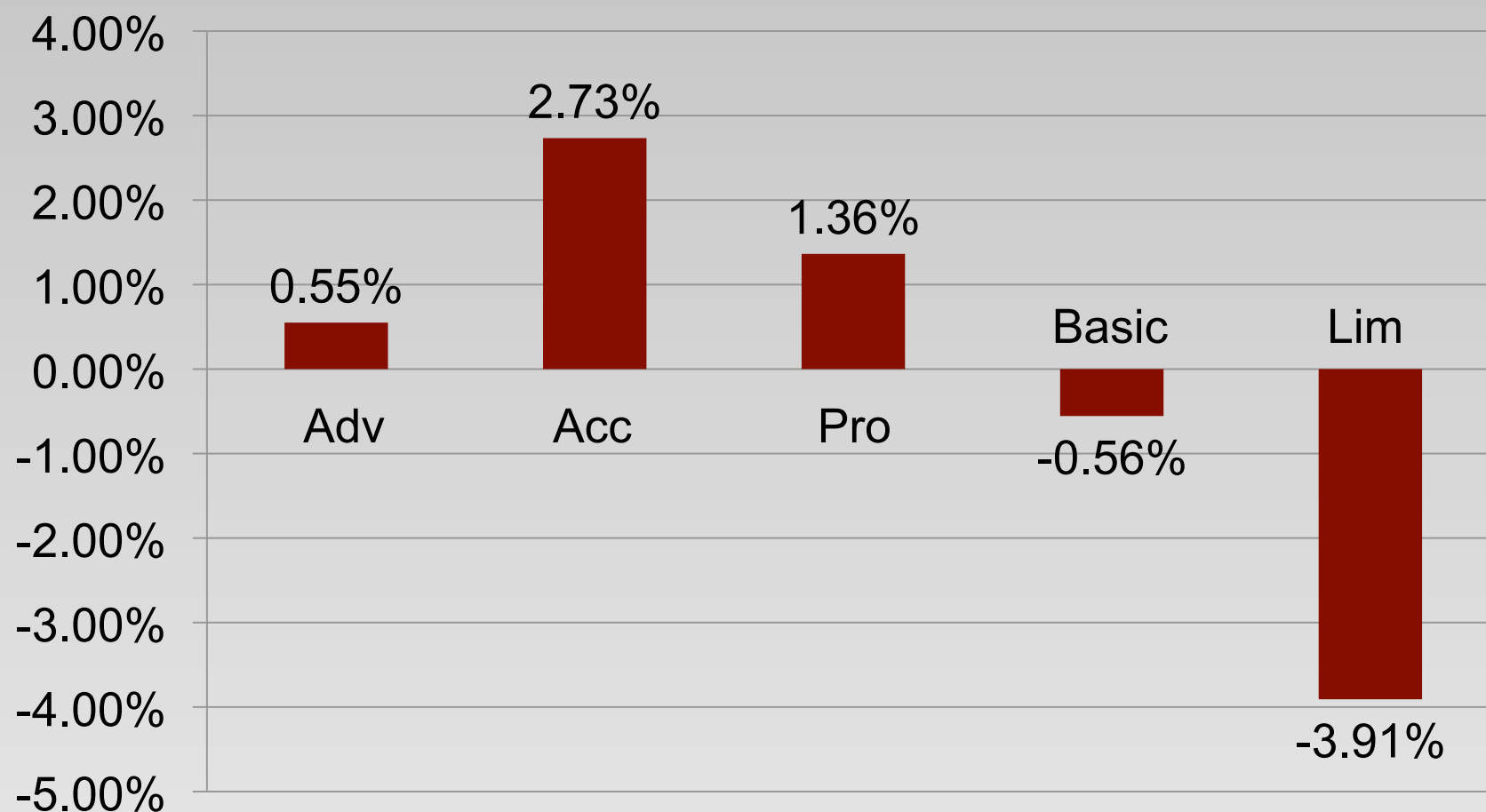
The Ohio State University  
Mathematics Coaching Program

Partially Funded by the  
Ohio Department of Education





## Grade 3-8 Average of Relative 08-09 Change on All Five Levels



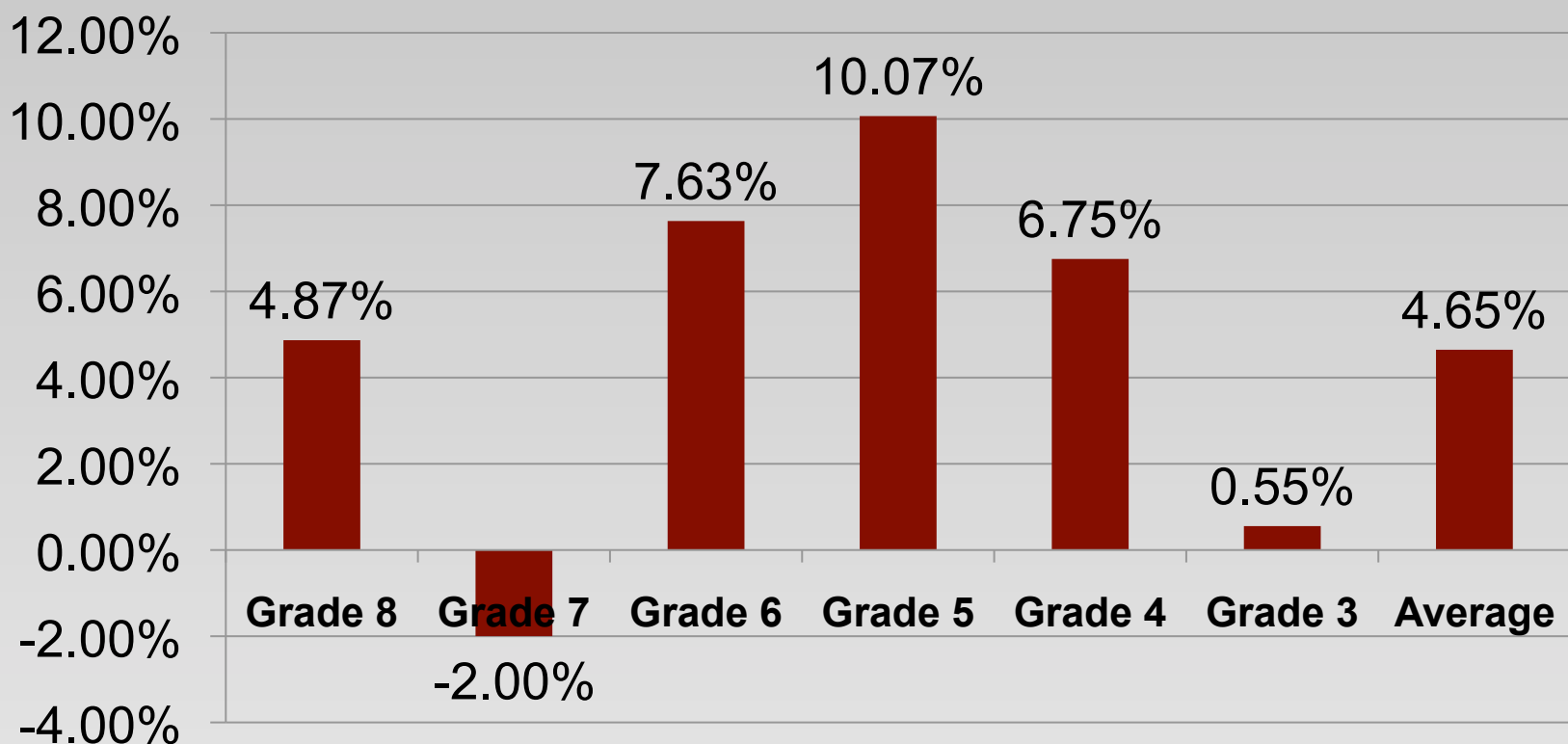
The Ohio State University  
Mathematics Coaching Program

Partially Funded by the  
Ohio Department of Education





## Grade 3-8 Relative 08-09 Change on Proficient and Above



The Ohio State University  
Mathematics Coaching Program

Partially Funded by the  
Ohio Department of Education







## Statistical Significance and Effect Size of Relative Change on Proficient & Above

Grade	Relative Change	P-value (2-tailed, $\alpha = 0.05$ )	Effect Size
3	0.6%	0.435	0.03
4	6.8%	0.000	0.42
5	10.1%	0.000	0.65
6	7.6%	0.000	0.43
7	-2.0%	0.001	-0.12
8	5.4%	0.000	0.30
All Grades	4.5%	0.000	0.27

