

# 2004-2005 SuccessMaker Evaluation



**Richland One**  
South Carolina's Capital Schools

**Office of Research and Evaluation**

A red ribbon graphic with a central rectangular section containing the word "Overview". The ribbon has a 3D effect with a grey shadow underneath. The background is a yellow gradient.

# Overview

# SuccessMaker (SM)

- Offers interactive learning activities in reading and language arts, mathematics and science
- Two course types:
  - Foundations: fundamental skills and strategies
  - ExploreWare: exploration and open-ended instruction

# SuccessMaker Foundations Courses

Area	Course	Level
Reading and Language Arts	Reading Readiness (RR)	K
	Initial Reading (IR)	1-2
	Reader's Workshop (RW)	2-5
	Spelling Skills (SPS) *	2-8
Math	Math Concepts and Skills (MCS)	K-8
	Math Concepts and Skills, Spanish (MCSS)	K-8

\* Not included in summary/analysis

# SuccessMaker ExploreWare Courses

Area	Course	Level
Reading and Language Arts	Story Painter (SP) *	K-2
	Discover English (DE)	K-2
	¡Vamos a leer! (VAL) *	K-2
	Reading Adventures Primary (RAP)	1-2
	First Adventures Bookshelf (FAB) *	1-2
	Reading Adventures (RA)	3-6
	Writer's Studio (WS) *	3-8
	Reading Investigations (RI)	6-8
	Portfolio Browser (PFB) *	NA
Math	Math Corner (MC) *	K-4
	Math Investigations (MI)	5-8
	Math Processor (MP) *	5-8
	Algebra Topics (AT)	NA
Science	Science Discovery (SD)	NA

\* Not included in summary/analysis

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**Implementation**

# Schools Using SuccessMaker in 2004-2005

Level	Using SM		Not Using SM
	Title One	Non-Title One	Non-Title One
Elementary	Arden	Logan	Brockman
	Bradley	Mill Creek	Caughman Rd
	Burnside	Pine Grove	Meadowfield
	Burton-Pack	Sandel	Moore
	Carver-Lyon	S. Kilbourne	
	Forest Heights	Taylor	
	Gadsden	Thomas	
	Greenview	Watkins-Nance	
	Hopkins Elem	Webber	
Hyatt Park			
Middle	Alcorn	Perry	Crayton
	Gibbes	Sanders	Hand
			Hopkins Middle
			Southeast
			St. Andrews

\* Not included in summary/analysis because no data was provided by school

# SM Basic Implementation Recommendations

- Target population uses SuccessMaker for at least three 20-minute sessions each week for a minimum of 20 weeks in both reading/language arts and math
  - Reading/LA: 20 hours in Foundations and ExploreWare courses combined
  - Math: 20 hours in Foundations course
- Students must maintain “Acceptable Performance” (AP) levels
  - Reading/LA Foundations: 65% exercises correct
  - Reading/LA ExploreWare: 70% exercises correct
  - Math Foundations: 90% skills mastered
- No recommendations for science because it has no Foundations course

# Number of Students Participating

Grade	Reading/LA *	Math *
District	6165	6539
Elementary	4838	5277
PK	1	1
K	73	187
1	300	446
2	693	886
3	1289	1284
4	1271	1271
5	1211	1202
Middle	1327	1262
6	458	448
7	472	470
8	397	344

\* Reading/LA includes Foundations and ExploreWare courses, but Math includes only Foundations course.

# Average Hours of Participation

Grade	Reading/LA *	Math *
District	8	9
Elementary	9	10
PK	1	1
K	5	6
1	8	11
2	6	8
3	10	10
4	10	10
5	10	10
Middle	4	5
6	4	5
7	4	5
8	4	5

\* Reading/LA includes Foundations and ExploreWare courses, but Math includes only Foundations course.

# Percent of Students with Acceptable Performance

Grade	Reading/LA *	Math *
District	55	73
Elementary	58	79
PK	0	0
K	79	82
1	85	82
2	80	69
3	53	79
4	51	80
5	50	83
Middle	45	49
6	48	52
7	37	48
8	51	47

\* Reading/LA includes Foundations and ExploreWare courses, but Math includes only Foundations course.



# **Evaluation Plan**

# Evaluation Plan

- To use PACT data to help determine if there are any significant achievement differences between students with higher participation in SuccessMaker (SM) versus students with no or lower participation in SuccessMaker
- For PACT ELA and Math
  - Define an experiment group of 2004-2005 students with higher SM participation meeting certain criteria
  - Define a control group consisting of similar students with no or lower SM participation having similar Spring 2004 PACT results
  - Determine if there are any significant differences in Spring 2005 PACT results between the groups

# Experiment Group Selection

- Participated in 2004-2005 SuccessMaker subject courses for at least one standard deviation above the average district participation with “Acceptable Performance”
  - ELA: At least 14.5 hours (AVG=8.1, STD=6.5)
  - Math: At least 15.7 hours (AVG=8.7, STD=7.0)
- Took on-grade level 2004 PACT subject test
- Took on-grade level 2005 PACT subject test

# Control Group Candidates

- Participated in 2004-2005 SuccessMaker subject courses for no more than one standard deviation below the average district participation
  - ELA: At most 1.6 hours (AVG=8.1, STD=6.5)
  - Math: At most 1.6 hours (AVG=8.7, STD=7.0)
- Took on-grade level 2004 PACT subject test
- Took on-grade level 2005 PACT subject test

# Control Group Selection

- For each experiment group student and subject, the group of students was selected from the control group candidates with the following criteria
  - Same race (black, non-black)
  - Same lunch (subsidized, full-pay)
  - Same grade level each year
  - Same 2004 PACT performance level
  - Same 2004 PACT EOC point weight

# Additional Details

- Experiment group students for whom no control group matches were found were excluded from the study
  - ELA: 4
  - Math: 9
- After the control group was selected, performances for all control matches for a particular experiment student were averaged to create a virtual control student

A red ribbon graphic with a central rectangular section containing the text 'ELA'. The ribbon has pointed ends on both sides, and the central section is slightly wider than the ends. The text 'ELA' is in a bold, black, sans-serif font. The entire graphic is set against a yellow background with a subtle gradient.

**ELA**

# ELA Student Descriptions

## 206 Experiment Group Students

Demographic	Value	Number	Percent
2004-2005 Grade	Grade 4	99	48.1
	Grade 5	97	47.1
	Grade 6	4	1.9
	Grade 7	1	0.5
	Grade 8	5	2.4
Race	Black	196	95.2
	Non-Black	10	4.9
Lunch	Full-Pay	35	17.0
	Subsidized	171	83.0

# ELA Student Descriptions

## 206 Experiment Group Students

Level	School	Number	Percent
Elementary	Arden	32	15.5
	Burnside	22	10.7
	Hopkins Elem	12	5.8
	Pine Grove	39	18.9
	Taylor	43	20.9
	Others Combined	48	23.3
Middle	Combined	10	4.9

Note: Control group contains 1102 students from 20 elementary, 9 middle and 1 charter schools.

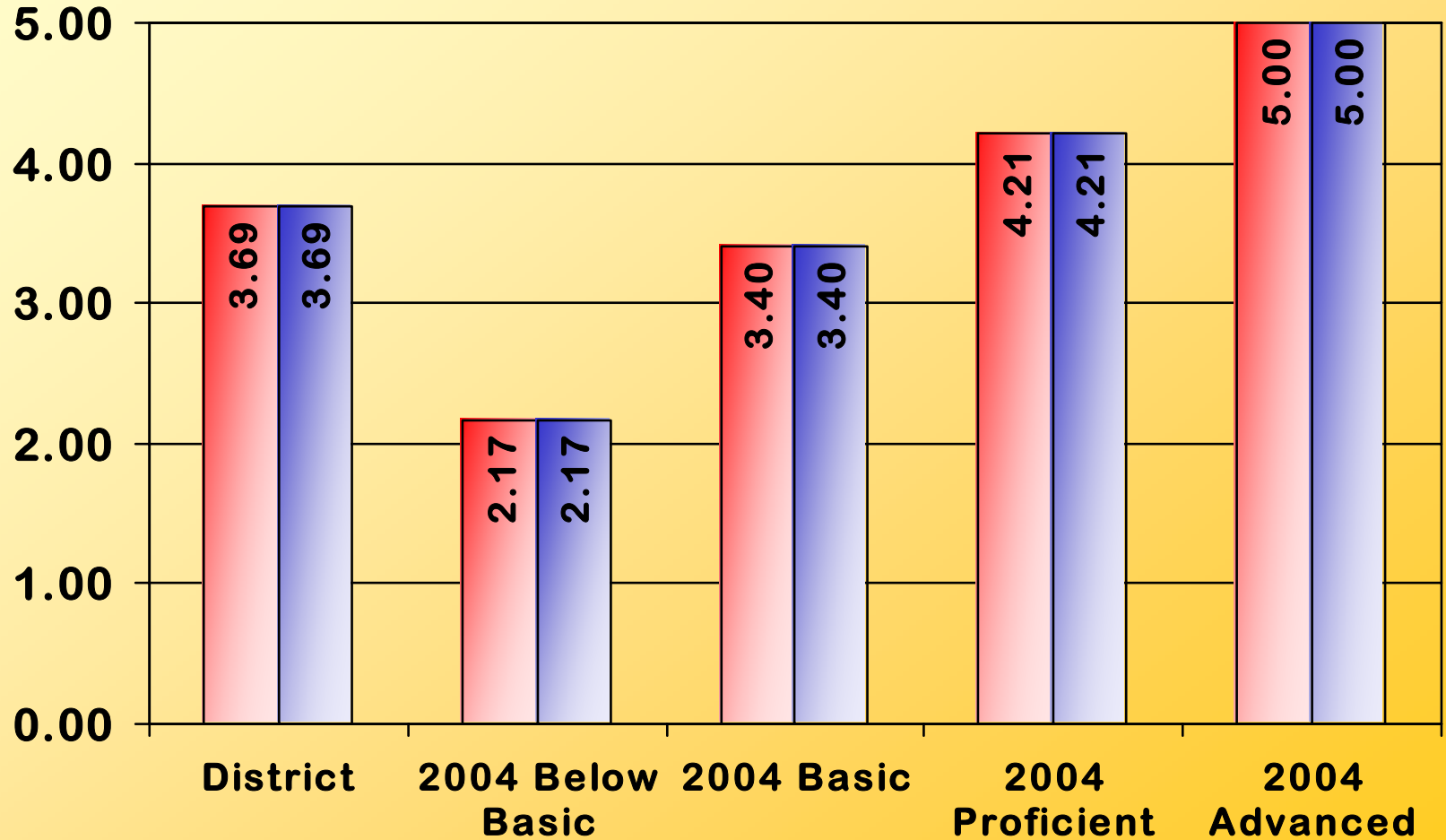
# ELA Pre-Test Comparison of Mean PACT EOC Point Weights

- Used analysis of variance with  $\alpha=0.01$  to compare group means of 2004 PACT EOC point weights

Group	Mean EOC Point Weight		P-value	Significant?
	Exp	Con		
<b>DISTRICT</b>	<b>3.69</b>	<b>3.69</b>	<b>1.0000</b>	<b>No *</b>
2004 Below Basic	2.17	2.17	1.0000	No *
2004 Basic	3.40	3.40	1.0000	No *
2004 Proficient	4.21	4.21	1.0000	No *
2004 Advanced	5.00	5.00	1.0000	No *

# ELA Pre-Test Comparison of Mean PACT EOC Point Weights

Significant? No      No      No      No      No  
 P-value 1.0000      1.0000      1.0000      1.0000      1.0000



Experiment Control

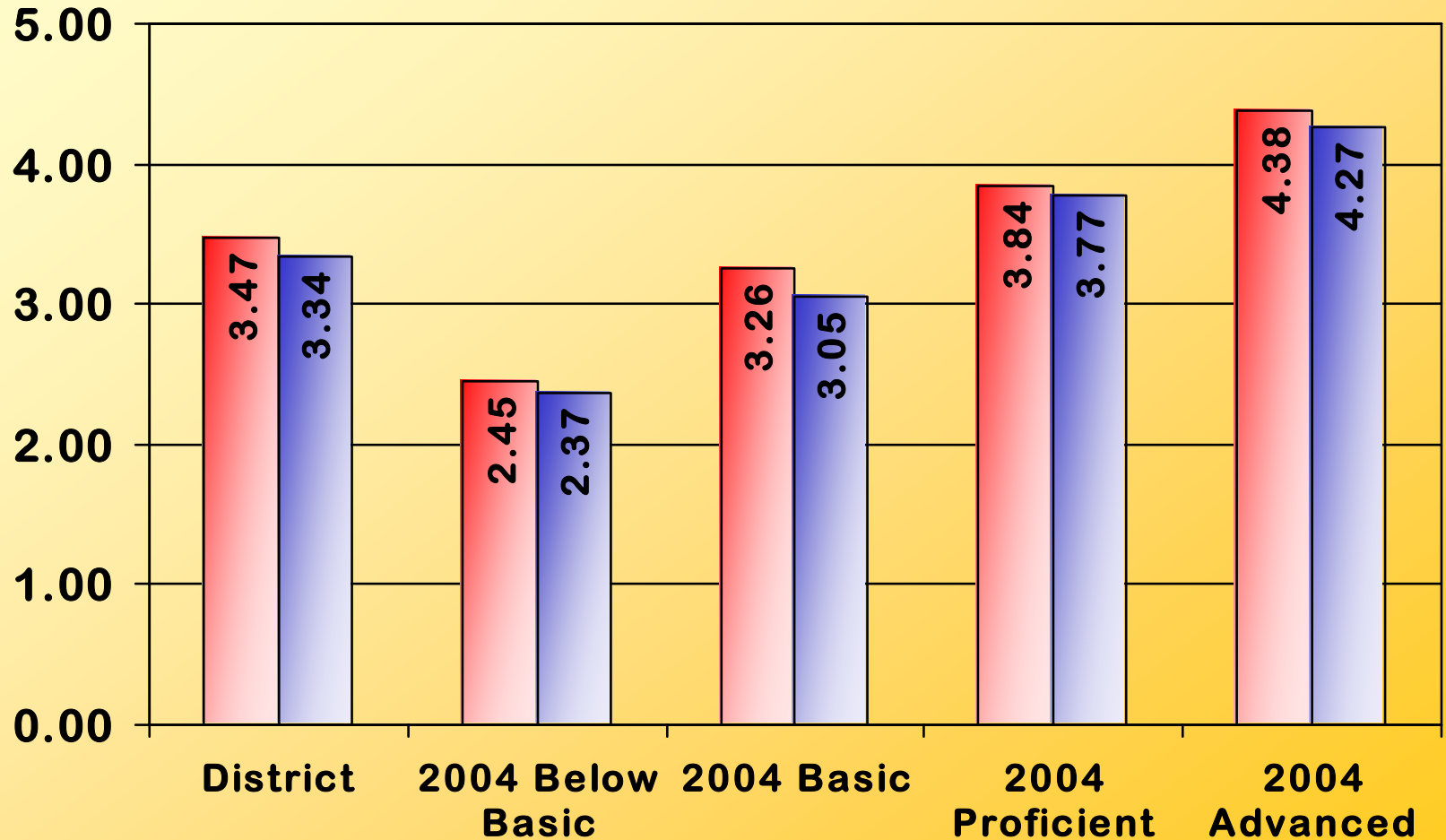
# ELA Post-Test Comparison of Mean PACT EOC Point Weights

- Used analysis of variance with  $\alpha=0.01$  to compare group means of 2005 PACT EOC point weights

Group	Mean EOC Point Weight		P-value	Significant?
	Exp	Con		
<b>DISTRICT</b>	<b>3.47</b>	<b>3.34</b>	<b>0.0458</b>	<b>No</b>
2004 Below Basic	2.45	2.37	0.6406	No
2004 Basic	3.26	3.05	0.0017	Yes +
2004 Proficient	3.84	3.77	0.2469	No
2004 Advanced	4.38	4.27	0.5487	No

# ELA Post-Test Comparison of Mean PACT EOC Point Weights

Significant?	No	No	Yes+	No	No
P-value	0.0458	0.6406	0.0017	0.2469	0.5487



Experiment Control

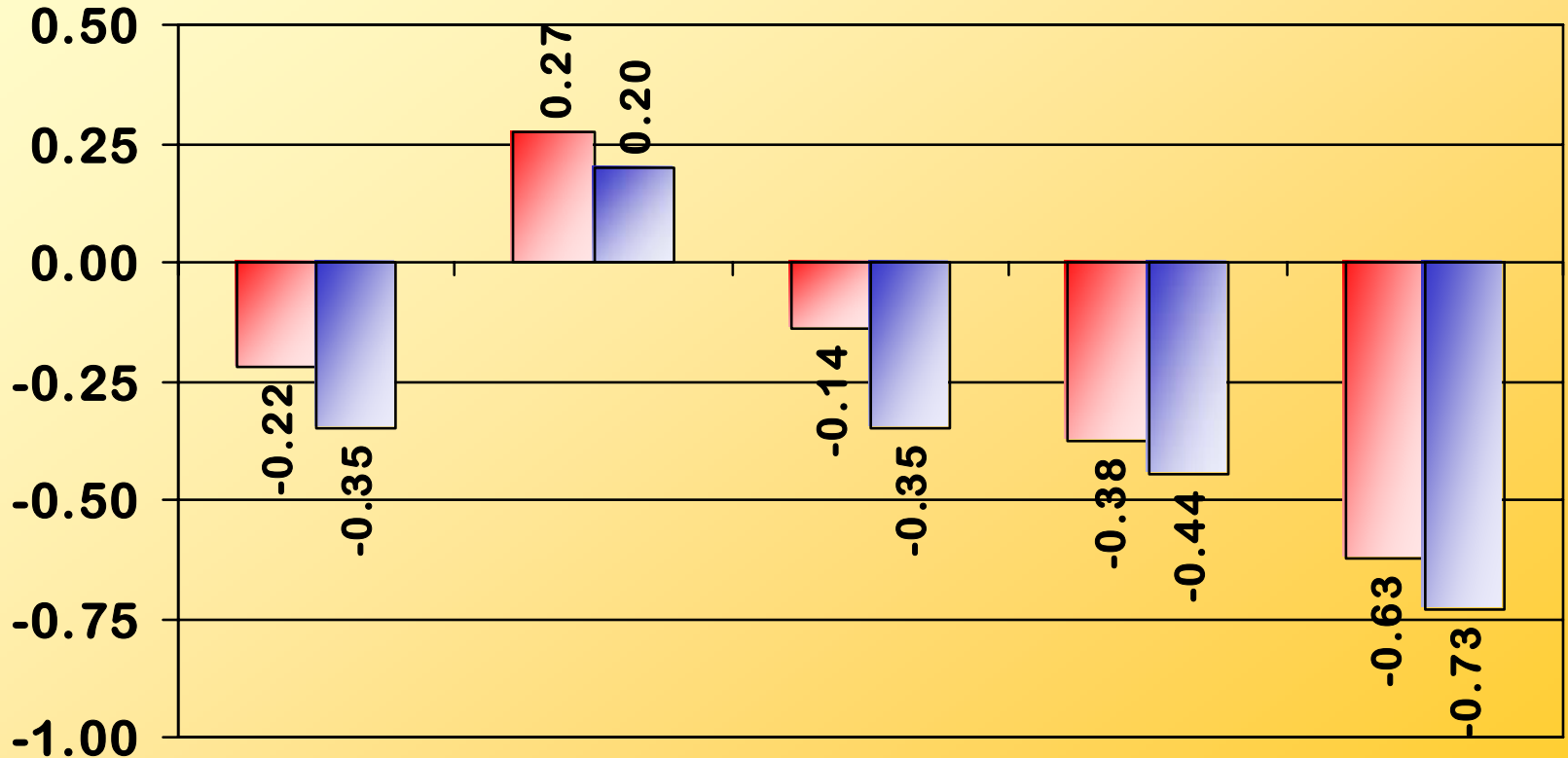
# ELA Post-Test Comparison of Mean PACT Improvement

- Used analysis of variance with  $\alpha=0.01$  to compare group means of 2005 PACT improvement

Group	Mean Improvement		P-value	Significant?
	Exp	Con		
<b>DISTRICT</b>	<b>-0.2197</b>	<b>-0.3478</b>	<b>0.0043</b>	<b>Yes +</b>
2004 Below Basic	0.2717	0.1966	0.6926	No
2004 Basic	-0.1412	-0.3503	0.0006	Yes +
2004 Proficient	-0.3778	-0.4438	0.1860	No
2004 Advanced	-0.6250	-0.7330	0.5487	No

# ELA Post-Test Comparison of Mean PACT Improvement

Significant?	Yes+	No	Yes+	No	No
P-value	0.0043	0.6926	0.0006	0.1860	0.5487



District

2004  
Below  
Basic

2004 Basic

2004  
Proficient

2004  
Advanced

Experiment Control

# ELA Results Summary

- Significance tests for 2005 PACT achievement between experiment and control groups are summarized below

Group	Significant Difference?	
	Mean EOC Point Weight	Mean Improvement
DISTRICT	No	Yes +
2004 Below Basic	No	No
2004 Basic	Yes +	Yes +
2004 Proficient	No	No
2004 Advanced	No	No

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**Math**

# Math Student Descriptions

## 340 Experiment Group Students

Demographic	Value	Number	Percent
2004-2005 Grade	Grade 4	157	46.2
	Grade 5	147	43.2
	Grade 6	14	4.1
	Grade 7	15	4.4
	Grade 8	7	2.1
Race	Black	326	95.9
	Non-Black	14	4.1
Lunch	Full-Pay	43	12.7
	Subsidized	297	87.4

# Math Student Descriptions

## 340 Experiment Group Students

Level	School	Number	Percent
Elementary	Arden	52	15.3
	Burnside	28	8.2
	Hopkins Elem	43	12.7
	Hyatt Park	21	6.2
	Pine Grove	58	17.1
	Taylor	45	13.2
	Others Combined	57	16.8
Middle	Gibbes	26	7.7
	Others Combined	10	2.9

Note: Control group contains 2005 students from 25 elementary, 9 middle, 1 charter and 1 special schools.

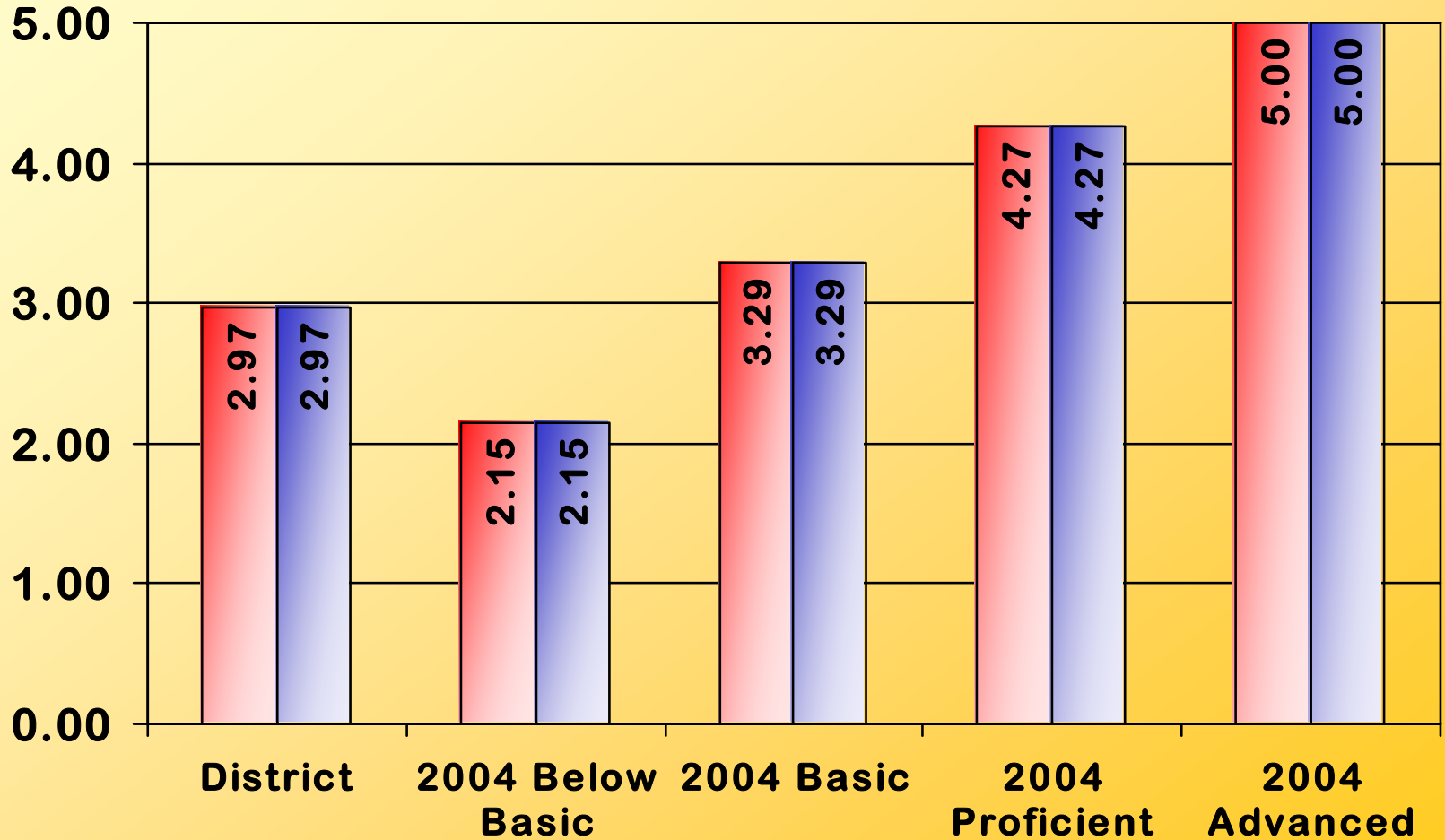
# Math Pre-Test Comparison of Mean PACT EOC Point Weights

- Used analysis of variance with  $\alpha=0.01$  to compare group means of 2004 PACT EOC point weights

Group	Mean EOC Point Weight		P-value	Significant?
	Exp	Con		
<b>DISTRICT</b>	<b>2.97</b>	<b>2.97</b>	<b>1.0000</b>	<b>No *</b>
2004 Below Basic	2.15	2.15	1.0000	No *
2004 Basic	3.29	3.29	1.0000	No *
2004 Proficient	4.27	4.27	1.0000	No *
2004 Advanced	5.00	5.00	1.0000	No *

# Math Pre-Test Comparison of Mean PACT EOC Point Weights

Significant? No No No No No  
P-value 1.0000 1.0000 1.0000 1.0000 1.0000



Experiment Control

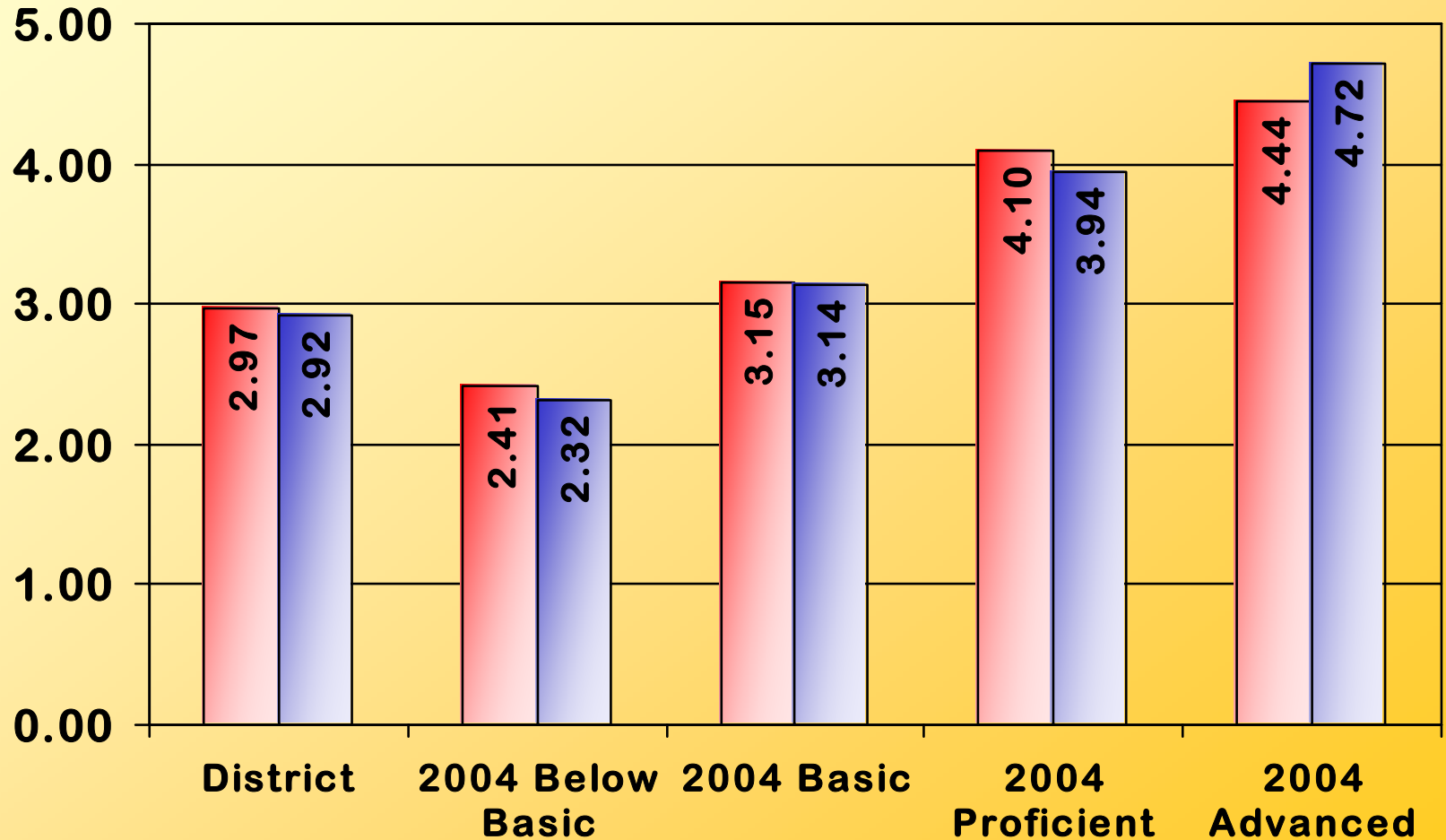
# Math Post-Test Comparison of Mean PACT EOC Point Weights

- Used analysis of variance with  $\alpha=0.01$  to compare group means of 2005 PACT EOC point weights

Group	Mean EOC Point Weight		P-value	Significant?
	Exp	Con		
<b>DISTRICT</b>	<b>2.97</b>	<b>2.92</b>	<b>0.4193</b>	<b>No</b>
2004 Below Basic	2.41	2.32	0.2029	No
2004 Basic	3.15	3.14	0.8998	No
2004 Proficient	4.10	3.94	0.1341	No
2004 Advanced	4.44	4.72	0.4693	No

# Math Post-Test Comparison of Mean PACT EOC Point Weights

Significant?	No	No	No	No	No
P-value	0.4193	0.2029	0.8998	0.1341	0.4693



Experiment Control

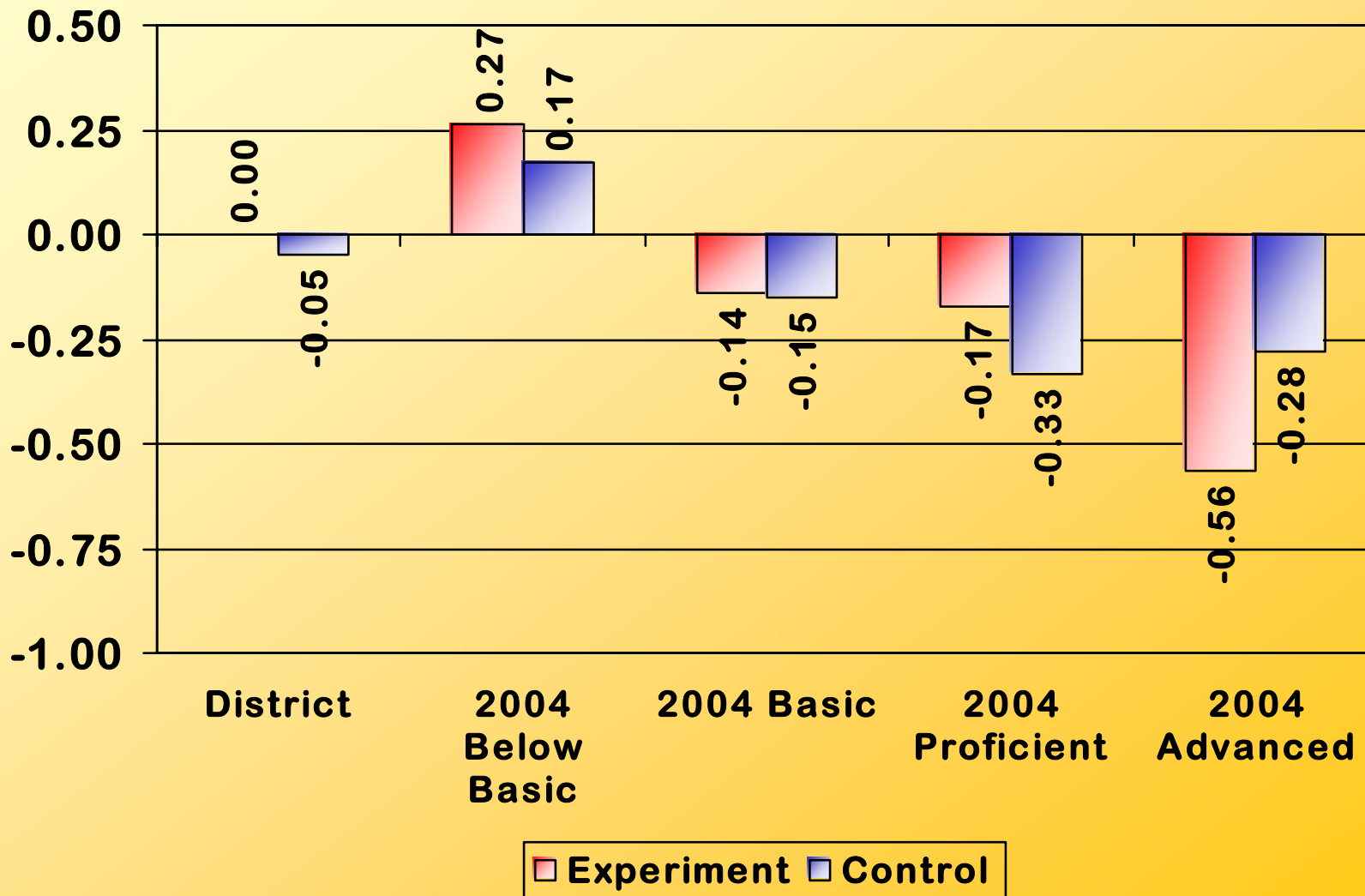
# Math Post-Test Comparison of Mean PACT Improvement

- Used analysis of variance with  $\alpha=0.01$  to compare group means of 2005 PACT improvement

Group	Mean Improvement		P-value	Significant?
	Exp	Con		
DISTRICT	0.0000	-0.0473	0.2626	No
2004 Below Basic	0.2661	0.1719	0.1876	No
2004 Basic	-0.1411	-0.1486	0.8846	No
2004 Proficient	-0.1731	-0.3319	0.1867	No
2004 Advanced	-0.5625	-0.2802	0.4693	No

# Math Post-Test Comparison of Mean PACT Improvement

Significant?	No	No	No	No	No
P-value	0.2626	0.1876	0.8846	0.1867	0.4693



# Math Results Summary

- Significance tests for 2005 PACT achievement between experiment and control groups are summarized below

Group	Significant Difference?	
	Mean EOC Point Weight	Mean Improvement
<b>DISTRICT</b>	No	No
2004 Below Basic	No	No
2004 Basic	No	No
2004 Proficient	No	No
2004 Advanced	No	No



**Summary &  
Conclusions**

# Evaluation Results Summary

Group	Significance Tests		Summary		
	ELA	Math	-	0	+
<b>DISTRICT</b>	<b>0 +</b>	<b>0 0</b>	<b>0%</b>	<b>75%</b>	<b>25%</b>
2004 Below Basic	0 0	0 0	0%	100%	0%
2004 Basic	+ +	0 0	0%	50%	50%
2004 Proficient	0 0	0 0	0%	100%	0%
2004 Advanced	0 0	0 0	0%	100%	0%

# Conclusions

- **Out of four outcome measures, students with higher SuccessMaker participation performed better than similar students with no or lower SuccessMaker participation in one measure (25%) and did not perform differently statistically for the remaining three measures (75%)**
- **Out of four outcome measures, Basic students with higher SuccessMaker participation performed better than similar Basic students with no or lower SuccessMaker participation in ELA but not in math**

# Conclusions

- **Out of four outcome measures, Below Basic, Proficient and Advanced students with higher SuccessMaker participation performed the same as similar Below Basic, Proficient and Advanced students with no or lower SuccessMaker participation in both ELA and math**

# Recommendations

- District should encourage more and better use of SuccessMaker at all elementary and middle schools despite study results because study results were influenced by the fact that few schools followed SuccessMaker recommendations for best practice implementation

# Recommendations

- **Schools should follow guidelines for SuccessMaker best practice implementation including but not limited to the following:**
  - **Students use SuccessMaker 4 to 5 times a week for the recommended time**
  - **Teacher/lab manager utilizes student performance data to communicate with parents**
  - **Teachers utilize reports (such as Grouping by Areas of Difficulty) to make modifications to classroom instruction and assign interventions**