

# Teacher Pay & Student Achievement

Does the salary schedule correlate to MAP Achievement?

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# Teacher Quality

Teacher - #1 factor in student  
achievement

-Marzano (2007), Wong (2009), Reeves (2009), Harris & Sass (2009)

What Characteristics = quality teacher?

Teacher Experience

Advanced Degrees

# Salary Schedule

		500	500	1500 MA OR BS+45	\$400 MA+9	400 MA+18	400 MA+24
	BS	BS+12	BS+24				
1	34,000	34,500	35,000	36,500	36,900	37,300	37,700
2	34,000	34,500	35,000	36,500	36,900	37,300	37,700
3	34,000	34,500	35,000	36,500	36,900	37,300	37,700
4	34,450	34,950	35,450	36,950	37,350	37,750	38,150
5	34,900	35,400	35,900	37,400	37,800	38,200	38,600
6	35,350	35,850	36,350	37,850	38,250	38,650	39,050
7	35,825	36,325	36,825	38,325	38,725	39,125	39,525
8	36,300	36,800	37,300	38,800	39,200	39,600	40,000
9	36,775	37,275	37,775	39,275	39,675	40,075	40,475
10	37,250	37,750	38,250	39,750	40,150	40,550	40,950
11	37,250	37,750	38,250	40,225	40,625	41,025	41,425
12	37,250	37,750	38,250	40,725	41,125	41,525	41,925
13	37,250	37,750	38,250	41,225	41,625	42,025	42,425
14	37,250	37,750	38,250	41,725	42,125	42,525	42,925
15	37,250	37,750	38,250	42,225	42,625	43,025	43,425
16	37,250	37,750	38,250	42,725	43,125	43,525	43,925

# Salary Schedule

- Salaries and Benefits – 80% of Budget
- “Master’s Bump”
  - National Average Salary – 2011 (NCES)
    - Bachelor’s - \$43,650
    - Master’s - \$54,810
  - Missouri
    - Average Salary Increase - \$4283
    - \$150 Million statewide

Roza & Miller, 2009

# Other Policies

- NCLB Highly Qualified Requirements
  - HOUSSE
- Tenure
- LIFO
- Hiring Practices

# The Study

- Why?
  - Experience & Advanced Degrees
- Who?
  - SWMO School Districts w/ ADA < 600
  - 3<sup>rd</sup> & 5<sup>th</sup> Grade
  - Sample – 23 Districts, 65 Teachers
- How?
  - Teacher Demographics
  - MAP Scale Score
  - Correlational & Regression Analysis

# District Demographics

- District Enrollment - 327.78
- District Staff - 41.26
- Elementary Enrollment -190.39
- Elementary Staff - 22.00
- % of teachers with Master's Degrees – 46%
- Experience
  - 0-6 years: 43%
  - 7-15 years: 42%
  - 16 + years: 15%



# Pearson $r$ Correlation

## 3<sup>rd</sup> Grade

Communication Arts	-0.03	0.09
Math	0.13	0.15

## 5<sup>th</sup> Grade

Communication Arts	0.21	0.10
Math	0.19	0.06

No statistically significant relationship between the variables.

# Multiple Regression Analysis

3<sup>rd</sup> Grade

Comm. Arts      0.0197

Math              0.0301

5<sup>th</sup> Grade

Comm. Arts      0.0442

Math              0.0373

The Variables explained less than 5% of the variation in test scores

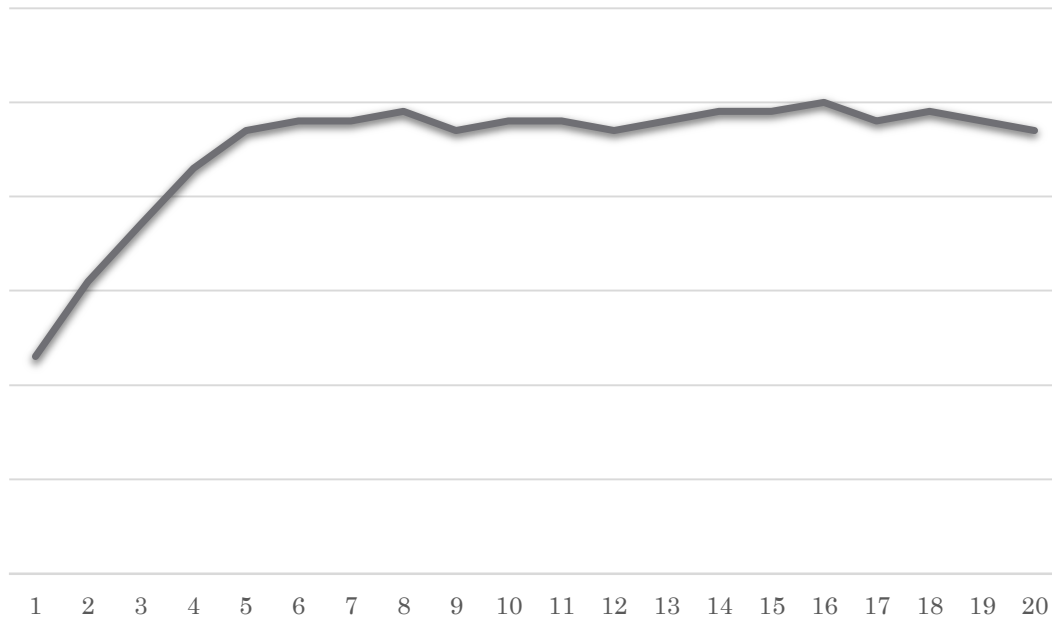
# Findings

- Analysis showed no significant relationship

# Previous Research

# Experience & Student Achievement Correlation

- Improvement is shown up to year 5
- After year 5 it levels off



# Experience & Student Achievement

2 areas showed continued correlation

- Kindergarten (Chetty et al., 2011)
- 3-8 Math (Ost, 2009)

One study suggests a continued correlation between experience and student achievement well into a teacher's career

(Papay & Kraft, 2011)

# Advanced Degrees & Student Achievement

- Advanced degree has no effect

Hanushek & Rivkin, 2012; Clotfelter, Ladd, & Vigdor, 2007; Dobbie & Fryer Jr., 2011; Harris & Sass, 2009.

- Earning a master's degree after beginning teaching are less effective

Clotfelter, Ladd, & Vigdor, 2007

- Districts with a majority of teachers with advanced degrees have lower test scores

Dobbie & Fryer, Jr., 2011

# Implications



- What does this mean for school policies..
  - Salary schedule?
  - Tenure?
  - LIFO?
  - Hiring?
- Teacher Education Programs
- Professional Development

# Current Salary Schedule

- Base Salary – higher base
- Advanced degree increase options
  - Must be aligned w/instruction and subject area
    - Admin degrees do not count
  - School district & higher ed. partnerships
  - National Board Certified

# Front Loaded Schedule

Larger increases in the earlier years of salary schedule

- Provides incentive for teachers to stay in teaching
- Teachers earn 8-20% more over career

# Market Based Schedules

- Higher salary or stipends for tougher to fill positions
- Douglas County, CO
- Putnam County, TN – PASS Program
- Georgia Math & Science Teacher Bonus Provision

# Other Policies

- Teacher Tenure
- Staff Reduction Policies

# Moving Forward..

## Learning how to..

- Determine characteristics of better teachers
- Attract higher quality teaching candidates
- Identify & keep higher quality teachers
- Compensate those quality teachers

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-Marzano (2007), Wong (2009), Reeves (2009), Harris & Sass (2009)

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