

SCHOOL START TIMES & TEACHER SATISFACTION

A NATIONAL STUDY BY A PRACTICING TEACHER

PATRICK M. CLANCY, ED.D.
 WALLINGFORD  SWARTHMORE
 SCHOOL DISTRICT

JUDITH C. STULL, PH.D.
 Temple
 University

INTRODUCTION

A growing number of schools are delaying start times to address adolescent sleep deficiencies.

There is limited research on the impact school schedules have on teachers and staff.



OBJECTIVE

Identify potential relationship between school schedules and teacher satisfaction, accounting for start and end times of school day.

DATA

Secondary analysis of responses to the **2017-18 National Teachers & Principals Survey**, facilitated by National Center for Education Statistics
 n = 44,320 teachers from a nationally representative sample



METHODOLOGY

Created a teacher satisfaction scale based on responses to seven survey items

Ran a multivariate analysis comparing satisfaction to school start time, school end time, and other teacher /school variables.

Regression variable	Regression coefficient (B)	Beta	t
Teacher PD scale	0.416	0.406	86.707***
Teacher collaboration Scale	0.019	0.015	3.257***
Teacher age	0.032	0.077	14.970***
≤ 3 years teaching experience	0.676	0.050	10.061***
Teacher base salary	0.033	0.013	2.451*
Coach/Activity sponsor	0.214	0.022	4.813***
Male principal of school	0.442	0.046	10.069***
Private school prior year	0.734	0.010	2.130*
Charter school	0.226	0.015	3.084**
School offers tenure	0.506	0.052	10.471***
School start time (per minute)	0.004	0.023	4.059***
School end time (per minute)	-0.004	-0.029	-4.975***
Teacher performance pay	-0.414	-0.030	-6.221***
Female teacher	-0.290	-0.027	-5.749***
(Constant)	12.109		13.462

FINDINGS

p < .001

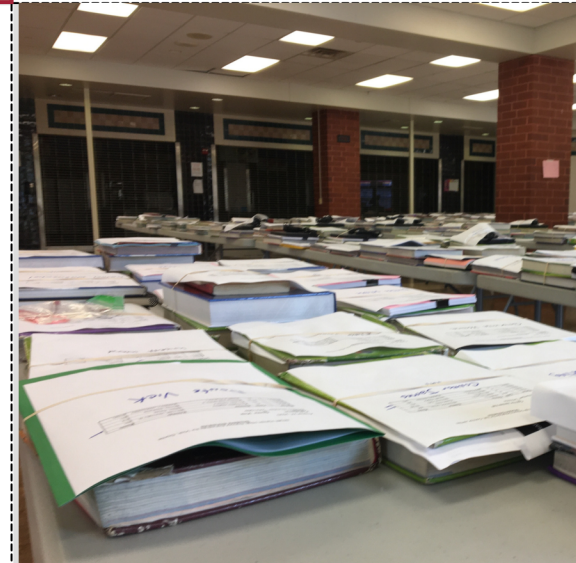
Positive relationship between start time & teacher satisfaction

- 1 minute later school start time = .004 increase in satisfaction scale

Negative relationship between end time & teacher satisfaction

- 1 minute later school end time = .004 decrease in satisfaction scale

Professional development had largest influence on satisfaction



SIGNIFICANCE

Demonstrates statistically significant relationship between school schedules and teacher satisfaction

Teaching schedules could also influence teacher recruitment and retention.

CONFERENCE PAPER



FULL STUDY

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**AMERICAN EDUCATION RESEARCH
ASSOCIATION CONFERENCE**

*SATURDAY, APRIL 13, 2024
PHILADELPHIA, PA*



PATRICK M. CLANCY, ED.D.

WALLINGFORD  SWARTHMORE
SCHOOL DISTRICT

JUDITH C. STULL, PH.D.

 **Temple
University**

BACKGROUND

- Pediatricians find adolescents do not consistently get enough sleep, and evidence suggests a correlation between later school start times at secondary level and longer adolescent sleep durations

(Dexter, et al., 2003; O'Malley & O'Malley, 2008; Owens, et al., 2010 Owens, et al., 2011; Paksarian, et al., 2015; Martin, et al., 2016; Dunster, et al., 2018)

- While public health experts have studied the impact of school start times on *students*, there has been limited research on the impact start times have on teachers

- US Teachers' job satisfaction has dropped over past two decades

(Gallup, 2014)

- Schools experience an average 15% annual turnover among teachers, with schools with larger populations of racial/ethnic minority students experiencing largest rates of teacher turnover

(AFT, 2017; Carver-Thomas & Darling-Hammond, 2017; Miller & Reynolds, 2022)

METHODOLOGY

- Retrospective secondary analysis of survey responses on the *National Teachers and Principals Survey* from the US Department of Education's National Center for Education Statistics.
 - Nationally representative random sample of 44,000 teachers
 - School Characteristics
 - Size
 - Racial Demographics
 - Neighborhood Density
 - Teacher variables
 - Demographics
 - Attitudes & Behaviors
- The large sample size improves likelihood of statistical significance, which is different from substantive significance.



TEACHER SATISFACTION SCALE

Survey Items:

To what extent is each of the following a problem in THIS school?

- The stress and disappointments involved with teaching at this school aren't really worth it.
- The teachers at this school like being here; I would describe us as a satisfied group
- I like the way things are run at this school
- If I could get a higher paying job I'd leave teaching as soon as possible.
- I think about transferring to another school.
- I don't seem to have as much enthusiasm now as I did when I began teaching.
- I think about staying home from school because I'm too tired to go.

Characteristics:

- Range: 7-28
- Mean: 20.86
- Standard Deviation: 4.86

RESULTS

Controlling for differences among the respondents, how is job satisfaction affected by different school starting times?

- For every minute later classes begin, teacher satisfaction increased .004 points on teacher satisfaction scale
- For every minute later classes end, teacher satisfaction decreased .004 points on teacher satisfaction scale

There is a statistically significant association between school schedules and responses on teacher satisfaction scale.

**Pearson correlation between school start time & school end time is .584*

	Regression coefficient (B)	Beta	t
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School start time (SST) (per minute)	0.004	0.023	4.059***
School end time (SET) (per minute)	-0.004	-0.029	-4.975***
Teacher performance pay	-0.414	-0.030	-6.221***
Female teacher	-0.290	-0.027	-5.749***
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DISCUSSION

- This study finds a statistically significant positive relationship between school start time and teacher satisfaction, and a statistically significant negative relationship between school end time and teacher satisfaction
- Other variables appear to have stronger influence on teacher satisfaction, most notably teacher engagement with professional development
- Limited data set which did not address possible motivations for teachers
 - Connection with students
 - Teacher's educational values

LIMITATIONS & FURTHER RESEARCH

Limitations

- Data Issues – Possible entry errors with large data set
- Limited $r^2 = .183$

Further Research

- Further research is warranted on this subject, specifically with the release of the 2020-21 NTPS
 - Comparison with COVID era
 - More questions on teacher views of school climate and teacher health

IMPLICATIONS FOR SCHOOL LEADERS

- Faculty must be part of the discussion when considering policy changes, such as school start times, as they are vital for effective implementation
- Promote self-directed professional development opportunities for teachers



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