

School Board Meeting:

September 23, 2019

Subject:

School Start Times Report

Presenter:

**Pam Miller, Director
Teaching & Learning
Mark Mischke, BHS Principal
Dr. Rachel Widome, U of M**

SUGGESTED SCHOOL BOARD ACTION:

Report only.

DESCRIPTION:

Since making the school start time change in the 2016-2017 school year, data has been collected at Buffalo High School in a variety of areas to monitor the impact of the switch. This school year marks the fourth year of the new start times for the district. Prior to 2016-2017, the start time at BHS was 7:45 am, whereas since that time the start time is 8:50 am. The change to a later start time aligns with the recommendation of the American Academy of Pediatrics to delay the start time of middle and high schools to 8:30 am or later.

As the district was preparing for the start times change from 2015-2016 through 2016-2017, the high school was invited to participate in a multi-year research study through the University of Minnesota, the START Study. This research study was led by Dr. Rachel Widome. Data from the START Study is now becoming available, which will be shared by Dr. Widome with the school board.

In addition to the University of Minnesota START Study data collection, administrators and staff at Buffalo High School have also gathered data related to the start times change. Outlined below are several areas considered as indicators of success with the start time change, as well as a couple areas that continue to present challenges for which the district and Buffalo High School continue to develop creative solutions.

Indicators of Success

Amount of Sleep

Certainly the first area of interest is any data that is able to be gathered to indicate if the start time change has resulted in a greater amount of sleep for our students. This data was collected through the START Study by the University of Minnesota. Results of the data analysis indicate BHS students are now getting 34













more minutes of sleep on average, than students in the other high schools included in the study that did not change to a later start time. In addition, BHS students are sleeping less on the weekends, meaning they are needing less “catch-up sleep” as compared to their counterparts at the other high schools included in the START Study. The data collection methods and results will be shared in detail with the school board by Dr. Widome at the board meeting.

Tardies to School First Block

One of the most compelling pieces of data gathered is the trend in the number of tardies to first block class at Buffalo High School since the start time change was made. As indicated in the table below, the year the change in the start time went to 8:50 am, the high school saw a significant drop in the number of first block tardies. Not only did the number of first block tardies drop during first quarter, but that decrease in the number of tardies continued to drop significantly from first quarter to fourth quarter as the implementation year progressed.

Interestingly enough, the decrease in the number of tardies continued on even further into the second year of implementation to an even lower number. The third year of implementation saw another decrease in Quarter 1 and Quarter 2, with a slight increase in Quarter 3 and Quarter 4. However, even given the slight increase in Quarters 3-4, the difference between the 2015-2016 school year and beyond is still a reduction in the number of tardies by more than 20%.

TARDIES BY YEAR/QUARTER

	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
2013-14	1,068	1,753	1,692	1,710
2014-15	1,728	2,397	2,628	2,568
2015-16	1,620	2,868	2,428	2,966
2016-17	 3% 1,671	 15% 2,427	 21% 1,915	 27% 2,170
2017-18	 9.2% 1,517	 15% 2,059	 4.2% 1,834	 15.2% 1,836
2018-19	 5% 1,441	 .5% 2,050	 2% 1,874	 1% 1,854
TOTALS	9,045	13,554	12,371	13,104

Participation in Activities/Athletics

The start time change appears to have had no impact on the total number of activities/athletics participants. The data in the table below shows no significant decrease in participation over the period of time the switch took place.

TOTAL ACTIVITIES PARTICIPANTS

	2015-2016	2016-2017	2017-2018	2018-2019
Fall	488	466	471	483
Winter	370	361	368	398
Spring	456	421	425	392
Year Total	1,314	1,248	1,264	1,273

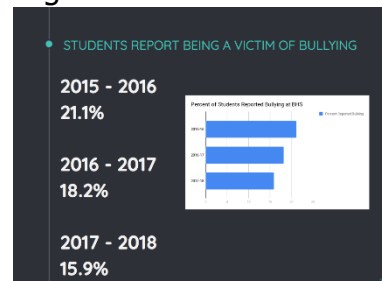
Grades

The start time change also appears to have had no negative impact on the grades students are receiving at Buffalo High School. The number of F's and Incompletes reported has remained stable throughout the time of the change.

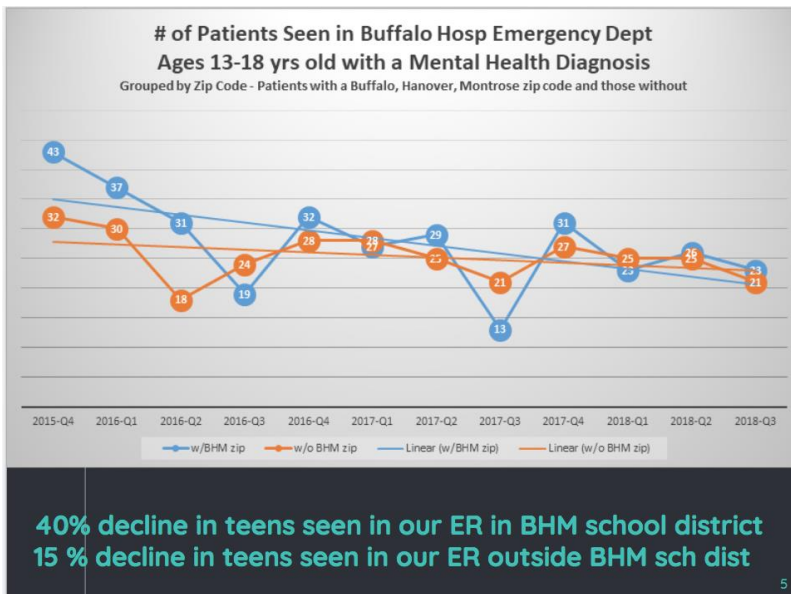
2015-16	QUARTER 1	%	QUARTER 2	%	QUARTER 3	%	QUARTER 4	%
F	168	2%	200	3%	220	3%	292	4%
I	5	0.1%	9	0.1%	16	0.2%	9	0.1%
2016-17	QUARTER 1	%	QUARTER 2	%	QUARTER 3	%	QUARTER 4	%
F	243	3%	291	4%	227	3%	243	3%
I	8	0.1%	54	0.7%	88	1%	4	0%
2017-18	QUARTER 1	%	QUARTER 2	%	QUARTER 3	%	QUARTER 4	%
F	219	3%	226	3%	246	3%	209	3%
I	41	0.5%	33	0.4%	37	0.5%	4	0.1%
2018-19	QUARTER 1	%	QUARTER 2	%	QUARTER 3	%	QUARTER 4	%
F	189	3%	252	3%	228	3%	236	3%
I	2	0.0%	0	0.0%	2	0.0%	9	0.1%

Other

The number of students at Buffalo High School reporting themselves as a victim of bullying has decreased from prior to the start time change and now. While it is unknown if this has a correlation to the implementation of the later start time in the district, the data is certainly shifting in a positive direction.



Another indicator of interest in the previous research of later school start times is the relationship of a student’s feelings of depression or other mental health issues and the amount of sleep they are getting on a regular basis. The data in the table below was shared with the district by Dr. Corey Martin through the Bounce Back Project. As observed here, the number of teens with a zip code of Buffalo, Hanover or Montrose who have been seen in the Buffalo Emergency Department has declined from 2015 to 2018. It is, of course, unknown if the teens seen at Buffalo Hospital attend school in our district. As with the bullying data, this data is cause for celebration, regardless of the amount of correlation to the start time change.



Continued Challenges

Opportunities for Employment

As expected with any large systemic change, the start times change has brought some challenges as well as successes. One of the concerns for some students prior to the start times change was the ability for them to continue their work options with several local employers. Some students and their parents were feeling the later dismissal time was a barrier to their opportunity for gainful employment and earning money. Buffalo High School responded to this concern with a creative solution to create, develop and expand the Work Experience and On-The-Job (OJT) programming provided to BHS students. The district has supported this effort in providing supports for the programming expansion. The

table below shows the participation numbers in the BHS and the Wright Technical Center (WTC) programming options in this area.

On The Job	Quarter 1		Quarter 2		Quarter 3		Quarter 4	
	BHS	WTC	BHS	WTC	BHS	WTC	BHS	WTC
2018-19	21	27	21	26	20	20	34	21
2017-18	NA	48	NA	49	NA	48	NA	50
2016-17	NA	44	NA	50	NA	47	NA	37
2015-16	NA	18	NA	18	NA	19	NA	0
2014-15	NA	19	NA	20	NA	9	NA	11
2013-14	NA	18	NA	18	NA	12	NA	12
Youth Apprentice	Quarter 1		Quarter 2		Quarter 3		Quarter 4	
	WTC		WTC		WTC		WTC	
2018-19	13		14		16		16	
2017-18	7		11		12		11	
2016-17	4		4		3		0	
2015-16	NA		NA		NA		NA	
2014-15	NA		NA		NA		NA	
2013-14	NA		NA		NA		NA	
Work Experience	Quarter 1		Quarter 2		Quarter 3		Quarter 4	
	BHS		BHS		BHS		BHS	
2018-19	16		20		23		30	
2017-18	11		12		12		23	
2016-17	NA		8		11		9	
2015-16	4		6		13		0	
2014-15	4		11		11		14	
2013-14	4		6		10		18	

Activities/Athletics

As activities and athletics are such an integral part of any high school culture, with Buffalo High School no exception to that, it is highly important to consider any challenges in this area that have been impacted by the start time change. Two areas of continued challenge for some activities are the practice times available due to unique facility needs (i.e. hockey and swimming), as well as morning meeting time needs for some of the sporadic occasions that occur throughout the season. Administrative staff and coaches/advisors at BHS continue to seek creative solutions to some of these impacted areas of activities.