

"SPEND!" . . . "THINK?" . . . "PLAN?"#

WE HAVE HUNDREDS OF EMPTY SEATS IN OUR SCHOOLS, ENROLLMENTS ARE DECLINING, WE MAY END UP CLOSING ONE OR MORE SCHOOLS, AND WE NEED TO SOLVE THE RACIAL IMBALANCE PROBLEM AT MCKINLEY.

WE OBVIOUSLY NEED A COMPREHENSIVE, LONG-TERM PLAN!

BUT THE BOE (AND TWO OF OUR THREE SELECTMEN), WANT TO SPEND AS MUCH AS \$25 MILLION ON MILL HILL SCHOOL (ON TOP OF THE \$18-\$19 MILLION WE ARE SPENDING TO EXPAND HOLLAND HILL SCHOOL) BEFORE THEY DEVELOP A PLAN.

AS SOMEONE WHO MUST PAY THE BILL, DO YOU THINK THAT MAKES SENSE?

If you had to decide what to do with Mill Hill School, you would want answers to three questions:

- 1. What is happening to enrollments?
- 2. What is the capacity of our schools?
- 3. What is the overall **plan**?

IN ITS RUSH TO SPEND AS MUCH AS \$25 MILLION ON MILL HILL SCHOOL, THE BOE:

- Is relying on questionable enrollment projections;
- Is understating our K-5 school capacity; and
- Wants to add capacity we may not need, to a school we might otherwise decide to close.

What is Happening to Enrollments?

Everyone agrees that K-5 enrollments <u>will continue to decline for at least five years</u>; the BOE says they will then begin to increase.

1. Why does the BOE think that K-5 enrollments will begin to increase in 2023-24 rather than continuing to decline or leveling out?

Answer: The BOE is relying on projections by its consultant, Milone and MacBroom (M&M),¹ and on the gut feelings some have that "enrollments always recover."

2. Do BOE members offer any analysis to support their gut feelings?

Answer: No, their gut feelings are apparently based on the fact that enrollments declined for 14 years from 1970 to 1984 and then partially recovered over the next 15 years from 1984 to 2009, before they started to decline again.

3. Is it reasonable to base a \$25 million capital spending decision on gut feelings?

Answer: No	,		,
------------	---	--	---

Please see the end note to this paper regarding the original headline for this paper.

¹ See: http://cdn.fairfieldschools.org/district-information/enrollment/MM Projections 02 13 2018.pdf

4. Why does the Consultant think enrollments will begin to recover in 2023-24?

Answer: M&M offers three projections of future enrollments, "high," "medium" and "low," based on different assumptions about "births, housing markets, economic conditions and in-migration rates." M&M thinks births over the next six years might increase 23% or they might decline 5% (yes, that's a pretty wide range), and they say their best guess is a 10% increase.

5. Why is the Consultant's best guess that births will increase 10%?

Answer: Using what they claim are proprietary analytical methods (meaning that they won't tell us how they do it), M&M says their high, medium and low projections of future births are "developed from regression models based on assumed unemployment rate and single-family home sales." This means they think they can predict births if they know what will happen to the unemployment rate and single-family home sales, but they don't explain how they can predict unemployment rates or home sales any better than they can predict births.

6. Does the Consultant disclose to what extent any statistical relationships upon which they are relying in their projections have fluctuated over time, or where within those historical ranges they assume those ratios will be in the future?

Answer: No.

7. Does the Consultant consider the possibility that the dominant influences on future birth rates may have nothing to do with variations in the unemployment rate and/or single-family home sales?

Answer: Apparently not, even though there are many articles about the unexpected steep drop in U.S. birth rates and fertility. One recent article in the NY Times said: "The share of women who have children could drop again if current trends continue. Women are planning to have children at later ages, when they are more likely to have trouble conceiving. And the fertility rate has not rebounded after the recession in the way that many economists expected: The number of babies born per 1,000 women of childbearing age in 2016, the last year for which we have official data, <u>was a record low</u>." ⁴ Another recent NY Times article said: "The pregnancy rate among young women is falling, and has been for years . . . Far from reversing as America grew out of economic recession, this lost fertility has worsened." ⁵

8. What about the other determinants of future enrollments?

⁵ https://mobile.nytimes.com/2018/02/13/upshot/american-fertility-is-falling-short-of-what-women-want.html?referer=https://query.nytimes.com/search/sitesearch/?action=click&contentCollection®ion=TopBar&WT.nav=searchWidget&module=SearchSubmit&pgtype=Homepage



² Page 23 of M&M's February 13, 2018 presentation.

³ Page 28 of M&M's February 13, 2018 presentation.

⁴ https://mobile.nytimes.com/2018/01/18/upshot/the-us-fertility-rate-is-down-yet-more-women-are-mothers.html?referer=https://query.nytimes.com/search/sitesearch/?action=click&contentCollection®ion=TopBar &WT.nav=searchWidget&module=SearchSubmit&pgtype=Homepage

Answer: In addition to an increase in births, M&M also thinks that the rate at which school-age children move into Fairfield will remain higher than it has been in the past.

3

9. Why does the Consultant think that more families with K-5-aged students will move into Fairfield?

Answer: M&M says only that the in-migration rate has increased in recent years <u>AND</u> that they assume it will remain higher.

10. Is it possible that the in-migration rate of K-5-aged students increased in recent years for reasons that will not continue?

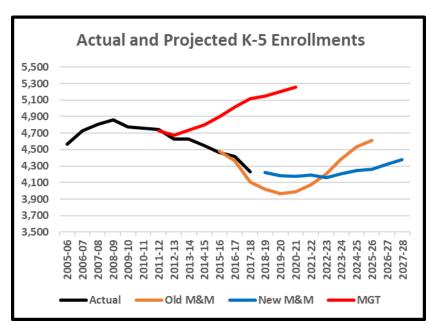
Answer: Yes. For example, it is possible that the in-migration ratios increased after the Great Recession due to a temporary increase in the propensity for public versus private schools.

11. What does the Consultant say when asked if their projections account for other possible future influences on the in-migration rate?

Answer: M&M's standard response is that any such influences are "baked into" the statistical relationships they are using for their projections. They say they are predicting the future based solely on "observed data from the recent past." They make no attempt to understand why the inmigration ratios may have changed, or why they may change again. M&M concedes that their "methodology works well for stable populations, including communities that are growing or declining at a steady rate," but they fail to acknowledge that these conditions do not currently apply in Fairfield (or perhaps anywhere else in CT?).

12. Does the Consultant have a good track record at projecting enrollments five to ten years in the future?

Answer: No. Less than two years ago, M&M was projecting that we would have 350 more K-5 students in 2025-26 than they now think we will have; "350" is equal to or greater than the number of students we currently have in three of our eleven K-5 schools (Jennings 290, Dwight 314, Mill Hill 350). The last consultant the BOE hired (MGT), using equally "sophisticated" forecasting methodologies, was also too high by a wide margin.



⁶ Page 23 of the February 13, 2018 presentation.



13. What if the Consultant is wrong and births do not increase, and the in-migration ratios return to their historical levels?

Answer: If births do not increase from their latest 5-year average, and if the in-migration ratios (the so-called "Birth-to-Kindergarten" and "Persistency" ratios) revert to their historical means instead of staying at or near their historical peaks, K-5 enrollments in 2027-28 would be 16% (713 students) lower (3,665) than M&M is projecting (4,378), and 25% below 2009's level (4,858). That is obviously a huge difference.

School		Old	New	M&M	Alternate	Scenario
Year	Actual	M&M	M&M	Change	Scenario*	v. M&M
2005-06	4,564					
2006-07	4,727					
2007-08	4,803					
2008-09	4,858					
2009-10	4,772					
2010-11	4,758					
2011-12	4,744					
2012-13	4,626					
2013-14	4,630					
2014-15	4,550					
2015-16	4,462	4,478				
2016-17	4,421	4,360				
2017-18	4,233	4,103				
2018-19		4,018	4,219	201	4,050	-169
2019-20		3,967	4,185	218	3,971	-214
2020-21		3,993	4,175	182	3,870	-305
2021-22		4,076	4,190	114	3,844	-346
2022-23		4,205	4,163	-42	3,750	-413
2023-24		4,383	4,209	-174	3,713	-496
2024-25		4,532	4,249	-283	3,733	-516
2025-26		4,613	4,263	-350	3,678	-585
2026-27			4,324	na	3,690	-634
2027-28			4,378	na	3,665	-713

TOTAL K-5 ENROLLMENTS

reasonable alternative their historical means instead of remaining elevated as M&M has assumed.

assumptions, we could have only **3,665** K-5 students ten years from now, which is 10% less than what the Consultant is using **(4,090)** as their Minimum projection?

Answer: Yes.

14. So, based on perfectly

What Is the Capacity of Our Schools?

Everyone agrees that we should compute capacity by multiplying the **number of instructional classrooms** we have by the **number of students we can put in each classroom**. We have eleven elementary schools with a total of **286** full-size classrooms (according to M&M), but some of these classrooms cannot be used for grade-level instruction because they are dedicated to other purposes, like art, music and special education, so we have fewer classrooms available for grade-level instruction.

1. How many of our **286** classrooms are not available for instruction?



^{*} This scenario simply assumes that births for the next five years remain at their average for the last five years, and that the BTK and Persistency ratios revert to their historical means instead of remaining elevated as M&M has assumed.

Answer: The number of classrooms that must be used for special purposes is a judgment call. If necessary, some of the classrooms currently used for special purposes could and would be available for grade-level instruction. If we accept the BOE's judgment on how many are required for special purposes (55, or 19% of the total), there are only 231 classrooms available for instruction.⁷

2. Are there any other classrooms we could use?

Answer: Yes. The BOE is understating the number of classrooms available for instruction by ignoring (for the first time in its analysis of capacity) the **five** so-called "portable" classrooms at Mill Hill School, and by presuming that **three** classrooms currently used for non-mandated Pre-Kindergarten programs (that could be eliminated or moved elsewhere) must always be used for that purpose.

3. So, we have, at minimum (i.e., accepting the BOE's judgment on how many are required for special purposes), somewhere between **231** (the BOE number) and **239** (including the five portables and the three Pre-K classrooms) available for instruction?

Answer: Yes.

4. How many students can we put in each classroom?

Answer: The BOE says we can put only **21** students in each classroom, even though its own guidelines say we can put at least **24** in each classroom.⁸

Class Size/Teacher Load

Grade Level Department		Reference		
Elementary Class Size	Grade K-2 maximum of 23; Grades 3-5 maximum of 25. McKinley Elementary School: Grades K-2 maximum of 21; Grades 3-5 maximum of 23.	Board of Education Class Size Guidelines		
Elementary Class Size	"For normal class instruction, a class not exceeding 25 shall be desirable; a class size of 15 shall be considered a minimum for efficient utilization of the teaching staff; when class size in grades K-2 exceeds 30, the class may be divided or a teaching aide and/or intern provided; when class size in grades 3-6 exceeds 35, the class may be divided or a teaching aide and/or intern provided."	Administrative policy noted in Collective Bargaining Agreement Part 2, p.77		

5. Why does the BOE say we can put only 21 students in each classroom?

Answer: The BOE does not explain why we should compute the capacity of our K-5 schools by assuming that the maximum number of students per classroom is only **21**, even though its own guidelines state that we can put at least **23-25** students in each classroom. Actually, as you can read above, the BOE guidelines state that "<u>a class not exceeding 25 shall be desirable</u>," and that we would divide a **K-2** class into two sections (*the so-called, "break point"*) or add a teaching aide only when it <u>exceeds 30</u> students, and that we can have <u>35 students</u> in a grade **3-5** class before dividing it or adding a teaching aide.

⁸ See page 132: http://cdn.fairfieldschools.org/boe/budget/2018-19/BOE Budget 2018-2019 02-13-2018.pdf



⁷ Page 14 of the February 13, 2018 presentation. Classroom numbers include the current Holland Hill expansion.

6. What does the Consultant say about students per classroom?

Answer: M&M (which, remember, is retained by the BOE, not the Town) merely adopts the BOE's position that we can put only **21** students in each classroom. The last consultant the BOE used, MGT, openly disagreed with the BOE (which may explain why they are the "former" consultant). In its enrollments and capacity study dated December 14, 2010, MGT used the official BOE guidelines copied above (i.e., **23-25** students per classroom), and recommended that we use that number to calculate the capacity of elementary schools rather than the BOE's 21 per classroom. MGT's exact words were as follows: "While both models use a similar approach, the use of an "average" class size in the FPS model for a loading factor, results in a lower capacity based on current enrollments as opposed to a capacity based on maximum class sizes."

7. What do other towns say about the maximum number of students per classroom?

Answer: Based on a *google* search, the maximum number of students per K-5 classroom (on average because the numbers are typically lower in K-1 and higher in 4-5) is: **Greenwich 23.7**;¹⁰ **Stamford 24.3**;¹¹ **Ridgefield 24**;¹² **Simsbury 23.5**;¹³ **Westport 23.5**;¹⁴ **Boston 23.5**;¹⁵ **New York City 30.8**.¹⁶

8. Is there a need for any other adjustment to seating capacity?

Answer: Yes. It is not reasonable to assume that we would ever have exactly the right number of students in each grade in each school to fill every classroom to the maximum. So, we need to apply what is called a "loading factor." As the consulting firm, MGT, explains in its December 2010 report: "Elementary schools typically group students by grade level where each class contains students of one grade. Realistically, students do not come in even groups for each grade. Consequently, it is unrealistic to expect each classroom to be filled with the maximum number of students allowed in the loading factor, e.g. 25 students in every 3rd grade room. Therefore, to arrive at a practical capacity calculation, a 95 percent scheduling/grouping factor is used to arrive at the functional capacity." ¹⁷ In short, schools can't operate at 100% of actual capacity, so some "cushion" must be allowed to accommodate differences from year-to-year in the number of students in each grade.

As noted above, MGT says a 5% cushion is adequate for elementary schools.

¹⁷ http://archive.fairfieldschools.org/downloads/enrollment/4469%20-%20Fairfield%20Public%20Schools%20-%20Enrollment%20Projections%20%20Elementary%20Capacity%20Study.pdf



⁹http://archive.fairfieldschools.org/downloads/enrollment/4469%20%20Fairfield%20Public%20Schools%20%20Enrollment%20Projections%20%20Elementary%20Capacity%20Study.pdf Page 53.

¹⁰https://www.boarddocs.com/ct/greenwich/Board.nsf/files/AF4TCJ6D2B5A/\$file/110316%20Enrollment%20Report%20w%20CS.pdf Page 16.

¹¹ https://www.stamfordpublicschools.org/sites/stamfordps/files/uploads/7940 stamford ps demographics - finalv2 jc 050217.pdf Page 35.

¹² https://www.theridgefieldpress.com/12063/class-sizes-most-are-well-below-limits/ Page 1.

¹³ http://www.simsbury.k12.ct.us/uploaded/District_Content/BOE/Facilities_and_Enrollment_Task_Force/SIMSBU_RY_CAPACITY_ANALYSIS_DRAFT_REPORT_1-13-2012_Revised.pdf?1326815651140_Page 2.

¹⁴ https://www.westport-news.com/news/article/Lower-class-size-limit-OK-d-for-second-grades-4253692.php

¹⁵ https://btu.org/wp-content/uploads/7 BTU%20Contract-Article%20V.pdf Page 24.

¹⁶ http://www.uft.org/faqs/what-are-class-size-limits-my-grade

In contrast, the BOE wants to use a 12.5% cushion, by assuming that each classroom can accommodate only 21 students – so if there are 24 instructional classrooms, they call the school a "504" (21 x 24 = 504) . . . when it is really a "576" (24 x 24 = 576).

AND THEN, the BOE wants ANOTHER 12.5% cushion on top of that by operating at only 85%-90% of their understated capacity, which means they want to assume we can put only 18 students on average in classrooms that actually can accommodate 24 students – or 75% of actual capacity.

9. What difference does all this make for capacity utilization, which is what we are trying to measure?

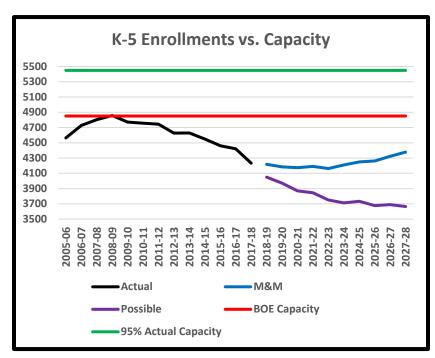
Answer: The BOE says we have only **4,851** seats available in our schools (**231** x **21** = **4,851**). If we add back the five portables at Mill Hill and the three classrooms being used for Pre-K, <u>AND</u> if we assume that on average we can put at least **22.8** students in each classroom (**95%** of **24** = **22.8**), then we have **5,449** or **12%** more seats (**239** x **22.8** = **5,449**). The difference of **598** seats (5449 - 4851 = 598) is basically equivalent to all 604 K-5 students currently in Jennings (290) and Dwight (314). So, the BOE is understating our K-5 capacity by the equivalent of all the students in two of our schools.

10. So, what is our current and projected capacity utilization?

Answer: With **4,252** K-5 students, our <u>current</u> capacity utilization is **88%** (4,252 / 4,851) based on the BOE's understated capacity, and only **78%** (4,252 / 5,449) based on 95% of actual capacity. The BOE likes to say that we are struggling with overcrowding in two schools (although only Sherman is remotely close to "crowded" and its enrollment is projected to be flat), but in fact we have **639** empty seats in the system based on their understated capacity number (4851 - 4252 = 639), which is <u>more</u> than all 604 students currently in Jennings and Dwight. And of course, we have **1,197** empty seats using 95% of actual capacity (5,449 - 4,252 = 1,197), which is more than all 954 students in Jennings, Dwight and Mill Hill (350).

If M&M's **2022-23** projections are correct, capacity utilization in five years, with no further capacity additions, will be **86%** (4,163 / 4,851) based on BOE capacity, and only **76%** (4,163 / 5,449) based on 95% of actual capacity.

If M&M's **2027-28** projections are correct, capacity utilization <u>in ten years</u>, with no additions, will be **90%** (4,378 / 4,851) based on BOE capacity, and only **80%** (4,378 / 5,449) based on 95% of actual capacity.





If births remain flat and in-migration ratios regress to their historical means, we will have only **3,665** K-5 students in **2027-28**, and capacity utilization will be only **76%** (3,665 / 4,851) based on BOE capacity, and only **67%** (3,665 / 5,449) based on actual capacity. The latter would mean **1,784 empty seats** (5,449 - 3,665 = 1,784) which is more than all 1,714 students currently in Jennings, Dwight, Mill Hill, Holland Hill (378) and North Stratfield (382) schools.

				CAPA	ACITY U	TILIZATI	ON IN K	-5 SCHO	OLS				
					ctional	Total		Current	Empty	Capacity			
	Classrooms			Rooms		Seats (iii)		Pupils	Seats	Utilization		n	
	Total	CLC	Pre-K	M&M	Actual	M&M	Actual	@ 95%	(2/1/18)	@ 95%	M&M	Actual	@ 95%
Pupils/Room			<u>'</u>			21	24						
Burr	28	1	1	22	23	462	552	524	380	144	82%	69%	72 %
Dwight	21	1	0	17	17	357	408	388	314	74	88%	77 %	81 %
Holland (i)	28	0	0	24	24	504	576	547	378	169	75 %	66 %	69 %
Jennings	23	1	0	17	17	357	408	388	290	98	81%	71 %	75 %
McKinley	30	0	0	24	24	504	576	547	438	109	87 %	76 %	80 %
Mill Hill (ii)	20	0	0	13	18	273	432	410	350	60	128%	81 %	85 %
N. Stratfield	28	0	0	24	24	504	576	547	382	165	76 %	66%	70 %
Osborn	30	2	0	22	22	462	528	502	429	73	93%	81 %	86%
Riverfield	27	0	0	24	24	504	576	547	413	134	82%	72 %	75 %
Sherman	24	0	0	22	22	462	528	502	470	32	102%	89 %	94%
Stratfield	27	0	2	22	24	462	576	547	408	139	88%	71 %	75 %
	286	5	3	231	239	4851	5736	5449	4252	1197	88%	74%	78%

Source: M&M at 10/24/17. (i) After current renovations and expansion. (ii) M&M numbers exclude five portables. (iii) The M&M source data include CLC seats at 8/room and exclude Pre-K seats, which makes no sense. We have excluded both CLC and Pre-K (a non-mandated program) from seats available in Instructional classrooms from all columns.

What Is the Overall Plan?

We have more than enough capacity to accommodate the number of students projected for at least the next ten years — even assuming our capacity is as low as the BOE says it is — and we may have substantially more capacity than we need if M&M's enrollment projections prove optimistic, as they have in the past. Thus, we have the luxury of time to create a thoughtful, comprehensive plan that considers all the costs and benefits of different facility and redistricting options.

1. Why does the BOE insist that we make a multi-million-dollar decision about Mill Hill school before they provide a comprehensive plan?

Answer: The BOE insists – even though we already have 639 empty seats by their own measure (and 1,197 empty seats based on 95% of actual capacity), and even though it is possible that it would make economic sense to close Mill Hill school instead of renovating (let alone expanding) it – that they need "the greater flexibility" that even more empty seats (i.e., additional capacity) at Mill Hill school would provide in order to develop an optimal redistricting plan to solve the Racial Imbalance "problem" at McKinley and the overcrowding "problem" at Sherman. The BOE also claims M&M has recommended redistricting solutions that require Mill Hill to be renovated and expanded, which of course is an assumption M&M would make only if they were instructed to do so by the BOE, and which certainly does not mean that there are not more cost-effective solutions.



2. Why spend any money on Mill Hill school until we have a comprehensive facilities and redistricting plan?

Answer: The BOE claims that we must spend money on Mill Hill in order to figure out how much we should spend on Mill Hill. In other words, they assume we should, at minimum, renovate Mill Hill school, and therefore are seeking authorization to spend \$1.5 million on preliminary design work, even though they concede that it may not be cost-effective to expand the school's capacity to the "504" level their funding request specifies. They apparently have not even considered the possibility that, instead of spending any money on it, Mill Hill school should be closed as part of a comprehensive facilities and redistricting plan.

3. Is this a good time to throw caution to the wind and spend millions on school renovation and expansion without a plan – a good time, metaphorically speaking, to "fire" before we are either "ready" or bother to "aim"?

Answer: Arguably, there could not be a worse time. Connecticut is facing a serious and deepening financial crisis that is likely to have significant adverse effects on our Town, including lower, if any, reimbursements for school construction, and the transfer to towns like Fairfield, one way or another, of teacher pension costs (as proposed last year by Governor Malloy), which are currently paid by the State with our state income and sales tax dollars.

4. What can taxpayers do?

Answer: Taxpayers are encouraged to inform Board of Finance and Representative Town Meeting members that they should demand a comprehensive facilities and redistricting plan from the BOE before they approve <u>any</u> spending on Mill Hill.

March 12, 2018

Endnote: The original headline of this paper was: "Fire! . . . "Ready? . . . Aim?" Although this phrase is widely used in the media (including the *New York Times*), we received a letter ¹⁸ today from the "officers of the Board of Education" (signed by Mr. Dwyer, Ms. Jacobson and Ms. Gerber) stating that it was: "completely lacking in sensitivity considering the recent Parkland shooting and the heightened fear our community and nation are experiencing . . . particularly provocative . . . intolerable . . . at best insensitive and at worst undermining the collaborative work between boards and commissions within Fairfield who are dedicated to addressing the concerns of our residents in regards to school safety" and that "the Board of Education vehemently objects to this language of violence pointing at our members or at our schools."

Readers, as always, are free to reach their own conclusions. We reiterate that we are always happy to correct any errors in our work or, in this case, to eliminate any unintended distractions from the substance of our analyses. We also apologize to anyone who found the original headline offensive in any way. Hopefully, everyone can now focus on the objective of this paper, which is to encourage decision makers to consider whether it makes sense to spend millions of taxpayer dollars on Mill Hill school without a comprehensive facilities and redistricting plan from the BOE.

FairfieldTaxpayer.com

¹⁸ Copy available upon request to FairfieldTaxpayer@gmail.com.