

Subcommittee: College and Career Readiness - Vocational Education

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Introduction

If the purpose of high school is to prepare students for their postsecondary pursuits, then that preparation needs to include the wide array of pathways a student may take, not just the narrow scope of college preparedness. Citizens of the United States are vast and varied in their interests and careers, and the march of time, as well as developments in technology and changing needs for the country, have created patterns of postsecondary studies and jobs, but it begs the question if high schools of today are adequately preparing students for the array of experiences they might encounter after earning a high school diploma. In past years, high schools have focused on clear messages of encouragement to help all students realize that they are capable of going to college, so much so that other programs, like vocational/technical programs, have fallen to the wayside at schools with the resources being redirected to college-preparatory programs. Since Hillsborough High School's inception in 1969, an automotive shop has been disbanded (1998, approximately), the work program for general education students became defunct (2010), and enrollment in several courses for Applied Technology and Information & Communication Technology (I&CT) courses has been on the decline as students have pursued more

college-preparatory pathways. Yet, “after years of focusing intensely on college readiness, states are turning their attention to students’ futures as workers, enacting a flurry of laws and policies designed to bolster career education and preparation” (Gewertz, 2017, p. 1). What does this mean for Hillsborough High School and how can the district support students in all of their future aspirations, regardless of the pathways the students may choose?

Review of Literature / Research Supporting the Need to Implement the Areas of Focus

As has been discussed at length in other portions of the Strategic Planning report, Hillsborough High School’s growth has been staggering since it first opened its doors. Originally serving a student clientele from families who lived in a relatively small town, many of whom were farmers (the school mascot was nearly the “Farmer,” not the Raider) and other careers, some of which did and some of which did not require a college degree, the township’s demographics have taken a turn, with a current District Factor Group designation of “I,” the second from the top for the state. Hillsborough has been cited as one of the best places to live in the country according to Money magazine (earning a rank of 30) with a median income of \$110,435 and a median home price of \$311,500... in 2015 (Best places, 2015). This is a lot of growth in an area once known for its extensive farming community. Eventually, a lot of that farmland gave way to housing developments, mini-mansions, townhouses, and apartments, turning the township in a new direction demographically and in the goals of its residents.

As times and the community changed so did the school system, focusing increasingly on preparing students for college as the preferred goal after high school. On the surface this appears to be a good thing. However, financial woes in the United States within the last decade, “left

millions unemployed for prolonged spells, with recent workforce entrants such as young graduates being particularly vulnerable” (Kroeger, Cooke, and Gould, 2016, p. 1). In a report completed by the Economic Policy Institute entitled, “The Class of 2016: The Labor Market is Still Far from Ideal for Young Graduates,” these authors researched the employment rates of recent high school graduates (ages 17-20) and college graduates (ages 21-24). As much as there has been a push in high schools for students to strive for college degrees, this study found that “the vast majority (65.8 percent) of people age 24-29 do not have a college degree,” further stating that “access to good jobs for these individuals is especially critical, as stable employment allows them to build a career or pay for further schooling” (p. 2). The study considers those who are unemployed and those who are underemployed (part-time workers who want full-time work or the unemployed who have stopped seeking employment within the last four weeks).

Unemployment / Underemployment Rates - Comparison between 2007 and 2016

	College Graduates 2016	College Graduates 2007	High School Graduates 2016	High School Graduates 2007
Unemployment Rate	5.6%	5.5%	17.9%	15.9%
Underemployment Rate	12.6%	9.6%	33.7%	26.8%

(based upon data from Kroeger, Cooke, and Gould, 2016, p. 2)

Those who have chosen to go to college are also shackled with additional loans, far more so than in the past. In a ten-year span ending in 2014-15, a college education (including tuition, fees, room, and board) “increased 119.5 percent for private school and 124.7 percent for public school (according to the College Board)” (p. 4). In the same time span, “there was a 92 percent increase in the number of student loan borrowers and a 74 percent increase in average student loan balances (according to the Federal Reserve Bank of New York)” (p. 4). One of the key factors

that may be contributing to such high rates unemployment and underemployment may be that young workers, who lack experience, may lose out on positions to those more qualified (p. 5). In addition, those without degrees may not get positions that are going to overqualified college graduates who have opted to work in jobs that do not require a degree. Even when the economy was better, “38 percent of employed college graduates age 22-17 worked in jobs that did not require a college degree (Federal Reserve Bank of New York 2016)” (p. 13). A unique outcome from the recent depression, as further noted by Kroeger, Cooke, and Gould, was that young, unemployed workers have not been using the periods of economic difficulty to seek additional education to improve their likelihood of employment, which has historically been the case (p. 16). College graduates also face very high levels of debt at much higher rates than previously. Based upon the Survey of Consumer Finances (as referenced in the Economic Policy Institute’s report), “37 percent of the nation’s households headed by an adult younger than age 40 owed money on student debt, a proportion that has more than doubled since 1989... The average amount was \$26,682 in 2010... and 10 percent of households owe \$61,895 or more” (p. 25). In broader terms, “the number of student loan borrowers increased by 92 percent, and average debt per borrower increased by 74 percent” between 2004 and 2014 (p. 26).

In the Final Report of the New Jersey Department of Education College and Career Readiness Task Force (2012), the committee stated their own findings, reporting, “in a 2005 survey by the Washington-based non-profit group Achieve, Inc., employers estimated that 39% of recent high school graduates were unprepared for entry level jobs, and 45% were not prepared to advance beyond those positions (Musgrove, 2010)” (2012, p. 17). The task force further argued that “business and industry... [are] required to expend substantial amounts of time,

energy, and money on training entry-level workers (as well as continuing professional development) so that these employees can meet minimal expectations for continuing employment” (p. 17). This appears to be a theme that is building momentum across the country as an underprepared workforce undermines the work that a company is able to do with new hires and as human and financial resources are diverted into conducting the necessary training. If this is the case for typical entry level jobs, it also raises concerns for the preparation recent graduates may have in career fields that require more specialized training, such as a trade or certification program, but not a college education.

The ripple effect for schools is attempting to find the magic formula of an educational system that balances the needs/goals of the college-bound and career-bound students. The answer would seem to be infusing more vocational-technical programs into the students’ experiences. The 1990 Perkins Act defines vocational education as “organized educational programs offering a sequence of courses which are directly related to the preparation of individuals in paid or unpaid employment in current or emerging occupations requiring other than a baccalaureate or advanced degree” (U.S. Department of Education, retrieved November 7, 2016).

In NJ Spotlight, Reitmeyer stated that the “demand for vocational-technical training is on the rise across the state, but there’s not enough space available now in existing school facilities to meet the demand” (p. 1). Much like the community connections in earlier discussions of academies, where the types of academies selected for a school are based upon the employment needs of the community, “leaders of New Jersey’s manufacturing industry have been indicating for some time that they need more skilled workers to fill job openings” (p. 1). In other states,

similar concerns have arisen, as have specific steps to counsel students on the wide array of postsecondary avenues that exist, not strictly limited to college. Colorado “now requires schools to include options like certificates, apprenticeships, and the military in their career counseling” (Gewertz, 2017, p. 1). Gewertz further reports that, “as they focus more intently on career preparation, some states have opted to use their diplomas to send signals to employers. Tennessee will now award a special ‘tri-star scholar’ designation to students who add an industry-recognized certificate and minimum scores on the SAT or ACT to their completion of all graduation requirements” (p. 2).

Internationally, there is evidence that the United States has departed vastly from the preparatory steps used with future contributing citizens and employees. Hanushek, Schwerdt, Woessmann, and Zhang (2017) report that “some [countries] stress vocation education that develops specific job-related skills in order to prepare students to work in specific occupations while others emphasize general education that provides students with broad knowledge and basic skills in mathematics and communication and serves as the foundation for further learning” (p. 49). The United States more closely meets the latter portion of the description with a nationwide system that is more attuned to creating a generalist instead of a specialist through completion of high school. In “Seeing Hope for Flagging Economy, West Virginia Revamps Vocational Track,” published in The New York Times, the author provides further comparison with other countries, stating, “When it comes to technical education, the United States is an outlier compared with other developed nations. Only 6 percent of American high schoolers were enrolled in a vocational course of study, according to a 2013 Department of Education report. In the United Kingdom, 42 percent were on the vocational track; in Germany, it was 59 percent; in the

Netherlands, 67 percent; and in Japan, 25 percent” (Goldstein, 2017, p. 2). In Hillsborough during the 2016-2017 school year, forty-two (42) students were enrolled in the county vocational school, which is less than 2 percent of the high school population:

Automotive Technology	5	Auto Body Repair	1	Cosmetology	6
Agricultural Science	1	Culinary Arts	3	Electrical Construction	3
Health Occupations	2	Dance	6	Theater	4
Law and Public Safety	3	Welding	1	Graphic Communications	3
Animal Science	2				

Where once employees stayed with companies and careers for decades if not an entire working lifetime, that is no longer the case. “Many young workers struggle to find their place in the labor force, changing not only employers but also occupations multiple times before they settle down to stable jobs. One appealing way to deal with these transition problems is to link students more closely to jobs through vocational education programs and through apprenticeships with firms” (Hanushek, Schwerdt, Woessmann, & Zhang, 2017, p. 49). If a high school program could expose students to a broader array of real-life experiences, help students identify specific fields of interest, connect students to practitioners, and train students to do, at the very least, the entry level positions in these fields well and with minimal on-the-job training, it would seem that those students had been well-served. There is also an emotional upheaval that accompanies young workers as they find their way in their working lives, especially if trial-and-error becomes their method for identifying their chosen fields. A vocational program could help to minimize some of that angst, as well as help to expedite the worker’s earning capacity, by providing insight and experience in elements of specific fields to help the students determine sooner what careers may or may not be for them.

The opening lines of Barron and Darling-Hammond’s article, “Powerful Learning:

Studies Shows Deep Understanding Derives from Collaborative Methods,” state:

“Today's students will enter a job market that values skills and abilities far different from the traditional workplace talents that so ably served their parents and grandparents. They must be able to crisply collect, synthesize, and analyze information, then conduct targeted research and work with others to employ that newfound knowledge. In essence, students must learn how to learn, while responding to endlessly changing technologies and social, economic, and global conditions.”

A similar theme is stated by the National Center on Education and the Economy (2007, p. 6), which focuses on problem-based learning and thinking expansively and outside the box:

“This is a world in which a very high level of preparation in reading, writing, speaking, mathematics, science, literature, history, and the arts will be an indispensable foundation for everything that comes after for most members of the workforce. It is a world in which comfort with ideas and abstractions is the passport to a good job, in which creativity and innovation are the key to the good life, in which high levels of education — a very different kind of education than most of us have had — are going to be the only security there is.”

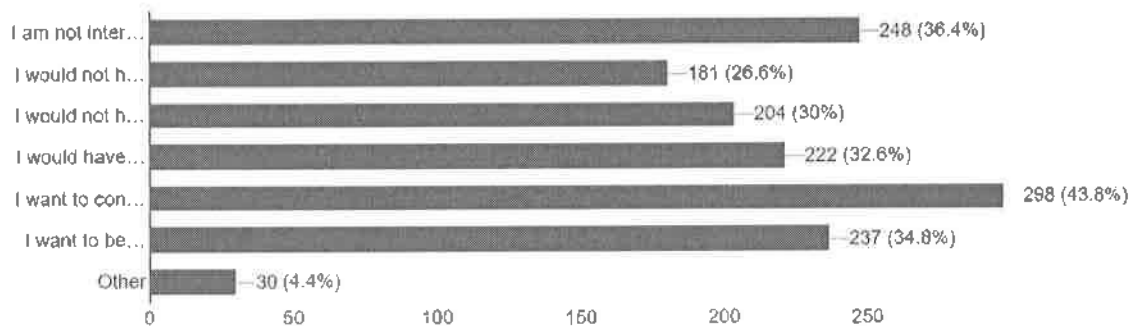
Not only do these words harken back to the district’s former mission statement, this far too aptly defines the crux of the problem for schools, as educational programs worldwide strive to develop programming that is both concrete and abstract, that prepares students to work not only upon graduating from high school/college but also twenty years later, that fosters in them the ability to create the future for themselves and others...without knowing exactly what that

future may hold. This, in and of itself, is an argument both for and against vocational programming.

An important consideration is how Hillsborough students would feel about changes that would give them more access to vocational programming. In the middle of the 2016-17 school year, a survey was completed with high school students, which received 681 responses (approximately 31% of the student population) and at Hillsborough Middle and Auten Road Intermediate schools, which received 767 responses (roughly 32% of the student population).

High School:

I am more interested in participating in a vocational program at HHS than at Somerset County Vocational School because: (Choose all that apply):
(681 responses)



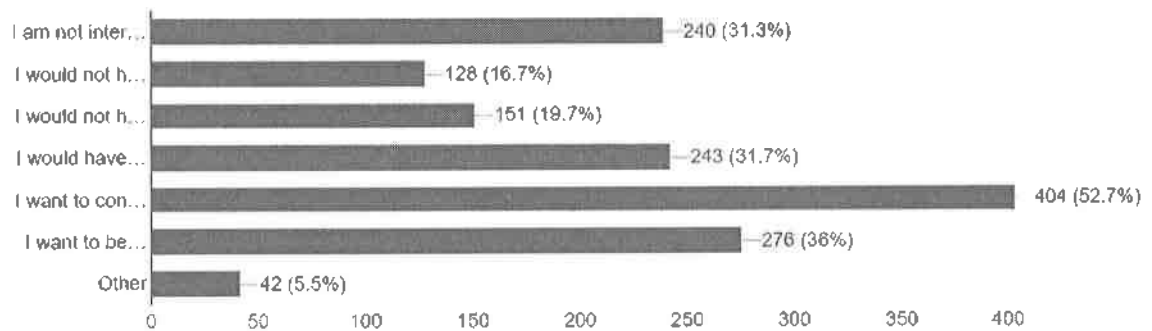
- I am not interested in being in a vocational program, regardless of whether classes are held at HHS or at Somerset County Vocational School. (If you checked this box, please do not check any other boxes in this question.)
- I would not have to worry about transportation concerns that effect my academic programming by requiring me to take online courses.
- I would not have to worry about transportation concerns that could impact my participation in student life at HHS.
- I would have better course selection at HHS (meeting graduation requirements and/or having more choices by topic and level).
- I want to continue my education with my friends/schoolmates in my town's school.
- I want to be a part of the Hillsborough High School community rather than the Somerset County Vocational community.
- Other:

In this question, slightly more than a third of the respondents had no interest in any form of vocational education. The remaining respondents (63.6%) were not opposed to vocational school but preferred to have the option on the campus of Hillsborough High School. While transportation and online classes played a part on these opinions, the strongest response was in a category that is very important to students, being with their friends in their home school.

HMS/ARIS:

I am more interested in participating in a vocational program in Hillsborough rather than another town: (Choose all that apply):

(767 responses)



- I am not interested in being in a vocational program, regardless of whether classes are held at HHS or at Somerset County Vocational School. (If you checked this box, please do not check any other boxes in this question.)
- I would not have to worry about transportation concerns that effect my academic programming by requiring me to take online courses.
- I would not have to worry about transportation concerns that could impact my participation in student life at HHS.
- I would have better course selection at HHS (meeting graduation requirements and/or having more choices by topic and level).
- I want to continue my education with my friends/schoolmates in my town's school.
- I want to be a part of the Hillsborough High School community rather than the Somerset County Vocational community.
- Other:

This is the same question as the one posed to the high schoolers, but it took out the name of the county vocational school so that students' answers were not skewed by their lack of

knowledge about SCVTHS. Once again, nearly a third of the students (31.3%) had no interest in vocational school at all, but of the 68.7% who would consider it, the most prevalent consideration was a familiar theme -- wanting to attend school in one's hometown with one's friends (52.7%).

Review of Literature / Research Against the Need to Implement the Areas of Focus

Vocational-technical programs may not prove to be the "be all and end all" for high schools, and they do not guarantee that students will even pursue the fields they may study in high school. According to data gathered by exit poll from the Somerset County Vocational-Technical High School (SCVTHS), roughly 20% of SCVTHS graduates from the Class of 2015 went into the workforce, 36% went to four-year colleges, and 36% went to two-year colleges (New Jersey Council of Vocational-Technical Schools). Although the reasons for the graduates' choices are unknown, what is clear is that 72% of the graduates did pursue additional schooling, regardless of the field of study, which may indicate that the vocational experience was largely for high school purposes only or may have appealed to a student's specific interests that may or may not have translated to actual career plans.

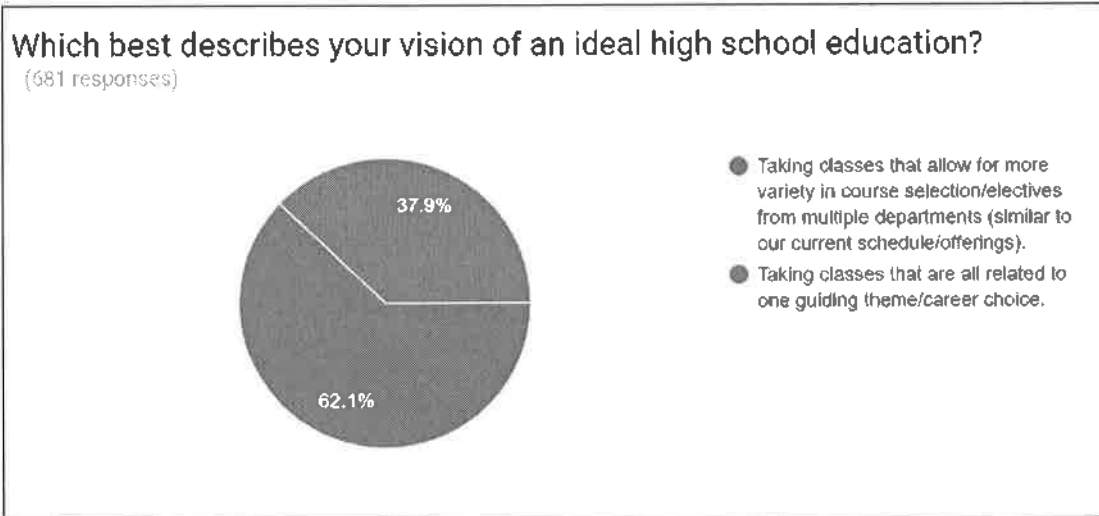
In "General Education, Vocational Education, and Labor-Market Outcomes over the Lifecycle," Hanushek, Schwert, Woessmann, and Zhang found that long-term success of vocational-technical programs and their students' employability may actually decline over time and, at age 50, generalists may be more employable due to a broader skill set and availability of training (2017).

Other issues exist with developing an on-site vocational program, notably in the area of cost. Each unique program is very specific in its needs and equipment, which may ultimately prove cost-prohibitive to development on the campus of a reimagined Hillsborough High School.

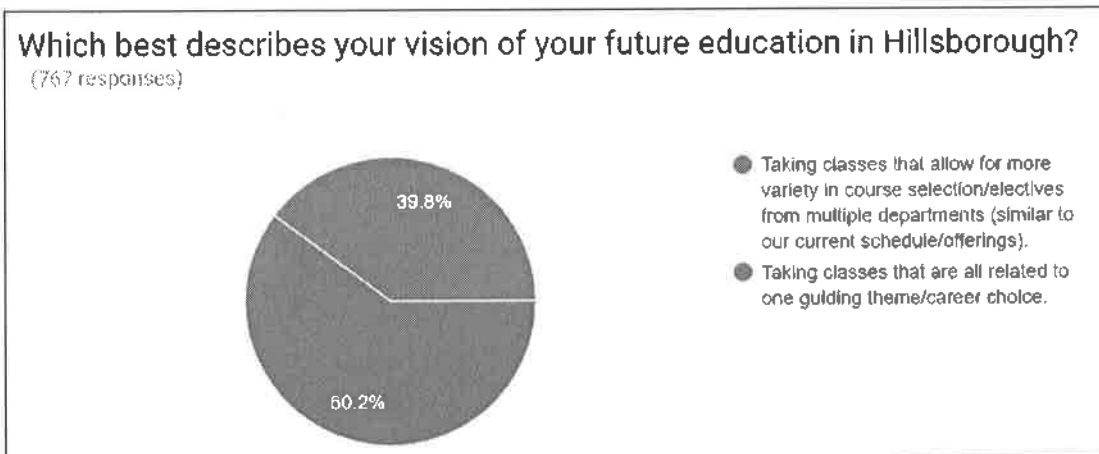
Perception can play a big role in a student's (or parent's) willingness to consider sending a student to a vocational-technical program. There has long been an unwarranted social stigma attached to vocational programs, perhaps harkening back to the days when the students who did not seem to be successful in a comprehensive high school instead attended a VoTech program. However, that stereotype is a thing of the past. Within the last ten years, the entrance requirements for SCVTHS have increased substantially in rigor, and the admissions process has become far more discerning. The VoTech students of the past, who may not have had strong grades or a clean behavior record, are no longer likely candidates for acceptance. To the contrary, SCVTHS looks for students who are academically competitive, do well on standardized assessments, and are not classified as students with special needs. This was a big adjustment for a lot of schools, HHS included. If there is any stigma currently attached to the vocational-technical school, it is truly unfounded as the programs have become highly competitive among students with histories of high academic achievement, almost to the detriment of students who would be better served learning in different ways than those typically employed in a comprehensive high school.

Just because the times have changed does not mean that student interest has changed. In the survey conducted with HHS, HMS, and ARIS students, the idea of a themed/career-based course of study was appealing to only one-third of the respondents:

High School:



HMS/ARIS:



In both groups, there was only a difference of approximately 2%, with the younger students being slightly more interested in taking classes related to one guiding/theme or career choice. These responses do not bode well for a vocational program or the concept of academies at the high school, as students appear to be more interested in having a multitude of choices available to them.

Should the district choose not to pursue any form of vocational structure, there are options that could be afforded to high school students that may bridge the gap between a full vocational program and the current traditional program being offered at HHS. There are currently only six Applied Technology classes offered at Hillsborough High School. With more flexibility in the bell schedule, electives that are engaging, enjoyable, and practical can be developed, such as a “farm to table” elective that combines skill sets from the Family & Consumer Science (FACS) department and the science department; a “home survival” elective that teaches students the skills needed to perform many basic repairs themselves without needing to hire an electrician or plumber; a basic auto shop program that trains students how to change tires and oil, as well as how to handle other minor issues that may strand someone on the side of the road; an on-site Robotics class that gets more students involved in something that closely aligns with many of the career plans of current students but currently cannot fit in the school day, surviving only as an extracurricular activity; and an expanded wood technology program that could handle student demand (currently, this course is limited by the facilities, outdated equipment, and the number of periods in the day, and students are turned away every year), as well as extend the core beliefs that are part of this program regarding use of sustainable materials, repurposing existing materials, and giving back to the school and community. Creating time in the day for more extensive elective opportunities, combined with having the facilities to handle those options, would also allow students to have full access to the very varied, multi-leveled academic courses available at Hillsborough High School.

Budget

As with the other areas of this report, the budget can only be defined once the decisions are made about what the Hillsborough Township Public School District values in this area. If vocational-technical training is incorporated in broad terms with academies and does not offer very specialized shop experiences (as one might find at SCVTHS), the cost will drop. However, if each unique shop, already in existence at SCVTHS, is duplicated, that expense will increase exponentially as some of the specialized equipment may run into the hundreds of thousands of dollars for one unit (such as an automotive painting booth). Additional considerations would entail appropriate and additional staffing and training to ensure that the new programs were taught by people with the necessary specialties to address each of the thematic areas.

Recommendations with Rationale

The subcommittee for vocational programming does not recommend duplicating the programming already available at Somerset County Vocational-Technical High School, but it does strongly recommend infusing vocational-technical programming into Hillsborough High School within the context of academies or, where possible, through revising, updating, and expanding course offerings. SCVTHS already offers (as listed on the Somerset County Vocational-Technical High School website):

- Theater Arts (a gifted and talented program, by audition only)
- Welding
- Plumbing
- Law and Public Safety

- Integrated Technology Systems
- Health Occupations
- Graphic Communications
- Electrical Constructions
- Dance (an honors program, by audition only)
- Culinary Arts
- Cosmetology
- Carpentry
- Automotive Diesel Technology
- Academy for Health and Medical Sciences (with Raritan Valley Community College, resulting in a high school diploma and an Associate's degree)
- Agricultural Science
- Auto Body Collision Repair
- TOPS (Technical Occupational Preparation for Success, an alternative school program)
- Mechatronics, Engineering, and Advanced Manufacturing

Some of these areas have potential for programs that could be run at Hillsborough High School that may result in more participants if the programs are held on the home campus. However, a far more expansive idea is to couple a student's access to SCVTHS with academy programs at Hillsborough High School within a new high school that would allow a change to the bell schedule. One serious issue for students at Hillsborough High School is the travel time to SCVTHS. Shared-time vocational students leave a class at HHS early to get to SCVTHS on

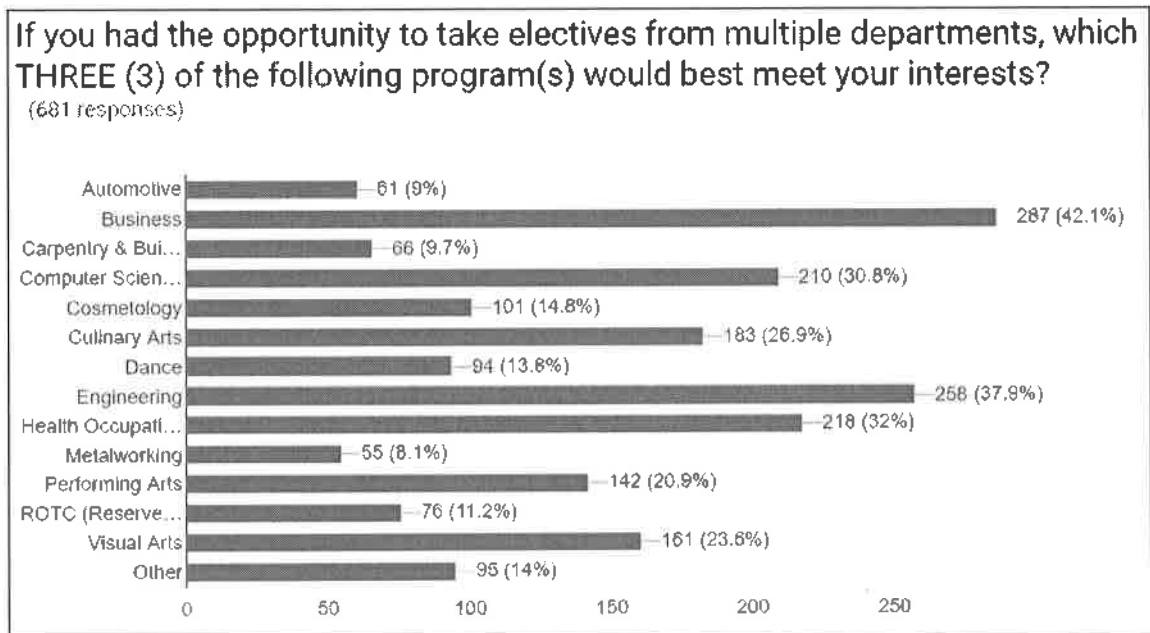
time for the afternoon session or arrive late to a class at HHS once the morning vocational program is done. These students also lose a full instructional period just for travel and often are not afforded an official lunch period, enabling them to take only six classes in a day (three at VoTech and three at HHS). In order to graduate on time, students must commit to taking one or more online courses to earn the required number of credits. In addition, if a student fails even one class in high school, there is a challenging ripple effect of hard choices with summer school, online courses, or trying to carve out time in the school day to repeat the class. For a student who struggles academically, all of these options can be very difficult. If HHS could add one more period to the day, VoTech might become more palatable to more students as a shared-time option since the students would still have the ability to earn all of their high school credits without needing to complete online coursework.

If SCVTHS became a viable option for more HHS students, the district would not need to expend money to duplicate any of the programs offered there and, instead, could enhance the offerings for students by developing different programming on the HHS campus. Aligned with the academy concept, these programs could weave together academic and practical components to provide students with a truly connected, comprehensive, philosophical, and practical experience that would help them simultaneously broaden and narrow their interests as they consider their post-secondary plans.

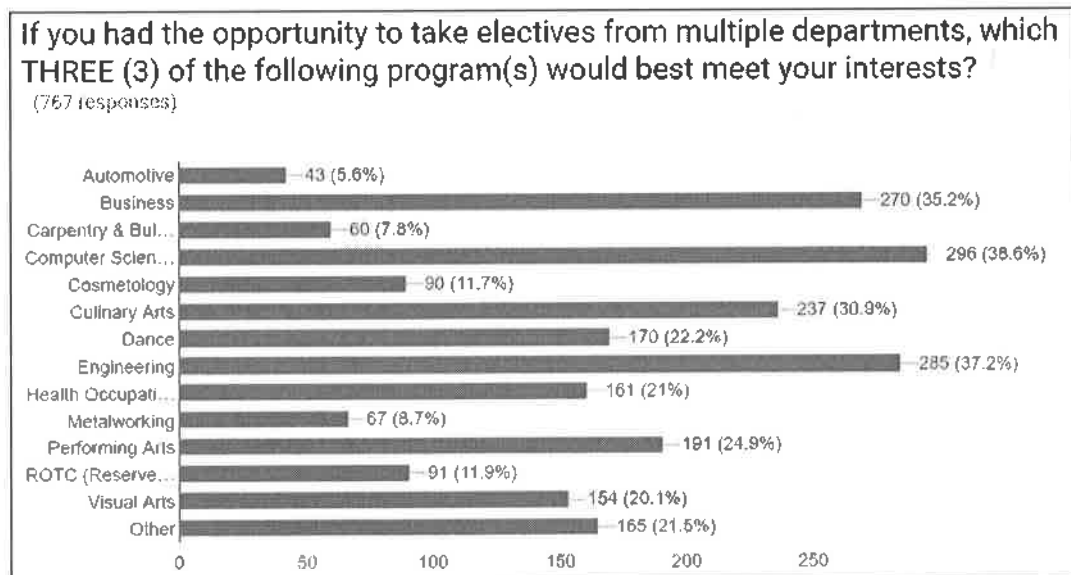
Students have very clear ideas of the areas of interest to them for electives and the pathways that they are likely to follow. In the survey administered to ARIS/HMS/HHS students, distinct trends appeared. Business classes earned first place at HHS while computer science was first at ARIS/HMS (business was third there). All grade levels selected engineering classes as

the second choice. At the high school, health occupations slightly edged out computer science for third place. Rounding out the top five for HHS was culinary arts. The fourth and fifth place selections for the younger grades were culinary arts and performing arts, respectively.

High School:



ARIS/HMS:



There are other steps that could be taken that, once again, could enhance students' access to experiences that would inform and prepare them for their futures. Among those are apprenticeships and career/technical education programs much like the cooperative work program that was dropped in 2010 where students attended school for a portion of the day and worked at real jobs earning real money and credit for last two periods of the day. With diverse socioeconomic ranges in Hillsborough, this type of program could be very palatable to some students who want jobs for their wish list items while others could help to support their families without needing to drop out of high school to do so. While Hillsborough does not have many larger corporations in the immediate vicinity, partnering with those that are less than thirty minutes away may be possible so that students can work as interns, research assistants, etc., some of which is happening now but on a much, much smaller scale. Courses could even be embedded that address important career skills like resume writing and the skills needed for successful interviewing, including preparation before an interview and the actual interview itself. The more connected the programming can become at Hillsborough High School, the more likely it is that students will internalize their learning and be able to generalize that learning across areas of study. Problem-based learning is increasingly important to help students investigate problems, use inquiry methods to develop solutions, and then follow through with the possible solutions until the best answer is found. That is the construct of most jobs they will fill as adults. The answers are rarely set in stone and, far more often, require the worker to analyze a problem, research solutions, and then select the appropriate course of action. This is the model for a plumber, a contractor, a teacher, a lawyer, a doctor, a researcher, and an engineer, to name just a few; although every field has its "right" and "wrong" answers, finding out which answer is the

best one is the challenge of each. Building those highly transferrable skills in Hillsborough High School students may possibly be the most important thing that they are taught while they attend school here. The added factors of the grit that they develop, the bravery that they apply to take risks, and the resilience that they learn through failure will also contribute to their ability to work through problems rather than be derailed by missteps. As Thomas Edison so famously said, “Genius is one percent inspiration and ninety-nine percent perspiration.” If that phrase could sum up the work of a man whose inventions changed this world, many of which were developed in this very state, it can be part of the guiding message that prepares students for the unknown that faces them at adults, armed with the confidence and experience to know that they have the tenacity to weather the ninety-nine percent of the time when they are struggling as they await that one percent of the time that is pure genius.

Conclusion

The College and Career Readiness subcommittee is but one-third of the interconnected topics raised as focal points of the Hillsborough Township Public School District’s strategic planning process, although the argument can be made that college and career readiness is, in fact, the purpose of the entire strategic plan. Every aspect of an education is leading to the ultimate goal of preparing students to become adult, contributing, successful members of society. How can that occur if steps are not taken early in life to close achievement gaps and give students access to the best educational programs in existence? With a preschool program and full-day kindergarten, the playing field is leveled sooner and the most basic of foundational skills in literacy and mathematics are set not in sand but in concrete. The important soft skills of

socialization and playing well with others are addressed at young ages, which helps build empathy and communication. Later in life, these skills are among those that help students feel like they are part of something bigger and that something bigger is a part of them, which helps with friendships, relationships, self-image, resilience, and perseverance, all of which are contributing factors to personal and professional success.

Now, as this leg of the strategic planning journey comes to an end, it is time for the Board of Education to consider why this is so important and why the thoughtful reflections of the community and the committees are worthy of consideration and hopefully support. To understand that better, here is a little more about the history of Hillsborough High School, from the perspective of the principal who has been fortunate to work with an outstanding staff and incredible students for the past nineteen years and wants nothing more than to give the HHS Family everything she can to remove the impediments to success.

In my first few years as principal, I assembled teams of staff members to research new bell schedules for the high school. Traditional and avant garde, the committee looked at them all. The current bell schedule is a traditional one, with seven instructional periods, each approximately 48 to 52 minutes long, and a half-period for lunch. A four-by-four block schedule (four classes in first semester and four in the second, with each class running nearly twice the length per period as a traditional class) was a consideration, but it was dismissed after concerns about the lack of continuity of instruction arose, notably in areas like world language, math, and music, where developmental skills were likely to wane the more time passed without the skills being used. A strong contender was the A/B block, which remains a possibility for any redesign yet to occur. In an A/B block, four longer classes occur on an "A Day" and four other classes

occur on a “B Day,” with the cycle repeating all year long. This keeps the continuity going and keeps skills fresh while extending the time students spend in each class to provide the flexibility to embed highly engaging student activities, science labs, and problem-based learning into lessons without the restriction of short periods. Finally, the model that was chosen at the time was the rotating drop schedule, where students would be scheduled into eight classes but would only attend six of them on a given day, three in the morning and three in the afternoon. The other two would be “dropped” daily, using a rotation so that different pairs of classes would be dropped each day of the cycle until the cycle began again.

These scheduling options would help Hillsborough High School in many ways. They would separate science labs from Health & Physical Education classes, allowing students to double-up on any combination of science classes they might choose since those classes would all run independently and without any connection to any other class in the school. H&PE classes would no longer consist of different sets of students each day of the cycle but would have a full roster of students who had time in their schedules to work on being physically fit each day and to learn about ways to stay physically, mentally, and emotionally fit in health class to prepare them for a long and healthy life (as well as learning to drive during sophomore year!). This schedule change would also stop classes that run during lunch periods feeling like they are cobbled together due to the constraints of the size of the cafeteria. With five, “half-period” lunch periods, each approximately 25 minutes long, students may take two classes and a lunch during the midday periods. The simplest construct is a Period 4/5 class, a Period 6 lunch, and a Period 7/8 class. However, almost every combination of those lunch periods can occur, such as Period 4 lunch, Period 5/6 class, and Period 7/8 class. Finally, there are some configurations that split a

class in half, with the lunch period sandwiched in between the start and end of the same class, such as a Period 4/6 class, Period 5 lunch, and Period 7/8 class. The lack of continuity in the Period 4/6 class is a challenge, and certain departments or levels bear the brunt of split classes because a science class cannot be split without interfering with the lab periods, special education classes are hurt by the split due to the break in instruction, and AP classes struggle to complete timed, practice AP exams if they are split, which leaves the burden of balancing lunch periods on the CP and honors classes in the world language, math, English, and social studies departments. Currently, HHS has 33 classes that are split (Period 4/6 or Period 6/8), resulting in 667 students having to leave midway through a class period to go to lunch only to return to the second half of the same class. Although they adjust, this is a momentum-killer in a classroom and requires completely different planning for a teacher who has to prepare testing materials differently to minimize cheating, cannot plan an activity that does not have a hard-stopping point for the lunch break, and cannot allow an excellent discussion thread to continue without interruption.

One of the biggest benefits to a new bell schedule would be adding an additional period to the day/rotation. Hillsborough High School is one of the very few schools in Somerset County with only seven instructional periods. Most have eight periods, and some have nine. One additional period would allow students the very important opportunity to explore new areas of interest to them, possibly being the catalyst for future careers or, at the very least, a lifelong interest or hobby. Another period would mean that students who had a passion (music, art) would not need to make sacrifices in order to take classes in a beloved area every year. Currently, many music students choose not to take a fourth year of social studies or world language in order to be in that music class. Some take online courses to open up their schedules,

although there are times when a student still cannot get that beloved class because it conflicts with something else that they need to take for graduation purposes or because the conflicting course is part of their career trajectory or highly competitive college application package. The extra period could also be used for higher level classes, exploring a new world language, independent studies, internships, and even study halls, which might go a long way in reducing stress for some students who feel thoroughly overwhelmed and overworked by their classes and the high school experience.

When all of this is combined, the answer seems so simple. Design a new bell schedule, implement it, add a period, increase opportunities, relieve stress, and set the students on the pathway to success. As mentioned earlier, a change to the bell schedule is the singular most instrumental change needed at Hillsborough High School. Our students deserve an extra period in their day to fill with a rigorous course, a joyful course, or a study hall. Their competitors have the extra period. Our students deserve longer, uninterrupted periods of study that maximize class time by minimizing interruptions from lunches or passing time. Their competitors have those streamlined schedules. Our students also deserve longer than the average twenty-five minutes for lunch to decompress, eat at a healthy pace (it can take half of a lunch period to get 600 to 700 students through the lunch lines during Periods 4, 6, and 8, the three largest lunches), leaving them only ten or twelve minutes to eat and relax. Their competitors in other schools have over forty minutes at lunch in most cases, can eat in a leisurely way, can work on homework, can get extra help, can have a club meeting, and can decompress before starting the second half of the day. We cannot offer Hillsborough High School students those same opportunities because we cannot run a unit lunch. In short, everything that we would like to do to improve the

instructional program, increase opportunities, and decrease stress at Hillsborough High School is limited by lunch. We cannot fit a unit lunch anywhere in the building, and we cannot use fewer lunch periods without taking away yet another instructional period.

It is both funny and sad to hear it said aloud that LUNCH is the biggest impediment to important, student-centered changes at Hillsborough High School, but there it is. There is no way around it, and there are no other options but to start over with a new facility, a new schedule, and a whole new world opening up to HHS students. We have the students with their unlimited possibilities in this world, and we have the staff of dedicated, smart, student-centered teachers. We are successful already -- there is no denying that -- but we are successful *in spite of* -- not because of -- the mortar and brick structures that should open doors for students but, in reality, are limiting what our school district can give them.

The binder of research the scheduling committee assembled on the rotating drop schedule has collected dust on my office shelf for the better part eight years. With the former superintendent, I presented the schedule proposal and outlined the pros and cons, and lunch remained an insurmountable sticking point. When Dr. Schiff arrived in the district, he asked what my "big idea" was, and I clearly recall thinking that an overhaul to the master schedule was the biggest idea we could even consider at that time, and I explained, once again, how soundly it would benefit our students and how solidly mired in the current schedule we were because of limits to our facilities. Dr. Schiff asked what we would need to make these necessary, student-centered improvements, and I did not hesitate to state that a new high school was the only solution. Nearly seven years later, that is actually a possibility, which is terrifying and thrilling in the same breath.

There is no denying that the idea of a new high school can take one's breath away: the cost, the enormity of the process, designing and building the facility, completely redesigning the program of studies into academies with increased capacity for career connections and community relationships, releasing the bonds that have shackled the performing arts and athletic programs, and creating an internal structure that enables students to make use of county vocational programs without taking online classes to graduate on time and without missing out on the experience of being a Raider. All of this, especially to the Board who needs to make the decision and most especially to this principal who would then have to make it happen, freezes the breath in one's lungs with the massiveness of this project, even while only at the conceptual level.

But then I think about life at Hillsborough High School once we outgrew our building... a Group 4 school in Group 2 facilities... stuck in so many ways by a world of opportunities that has and will continue to pass us by, and I realize that Hillsborough High School hasn't been able to breathe in a long time. Why would we ever allow that to be acceptable when an infusion of new life is completely within our hands? Its time has come.

"The only thing that is more expensive than education is ignorance." (Benjamin Franklin)

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