

SOUTHINGTON BOARD OF EDUCATION

SOUTHINGTON, CONNECTICUT

REGULAR MEETING

MARCH 12, 2015

The regular meeting of the Southington Board of Education was held on Thursday, March 12, 2015 at 7:30 p.m. in the Municipal Center Public Assembly Room, 200 North Main Street, Southington, Connecticut with Executive Session scheduled for 6:30 p.m.

1. CALL TO ORDER

Mr. Brian Goralski, Chairperson, called the meeting to order at 6:36 p.m.

Present from the Board: Mrs. Terri Carmody, Mrs. Colleen Clark, Mr. David Derynoski, Mrs. Patricia Johnson, Mrs. Terry Lombardi (*arrived at 6:49 p.m.*), Mrs. Jill Notar-Francesco, Mr. Zaya Oshana, Mrs. Patricia Queen, and Mr. Brian Goralski.

Present from Administration: Mr. Timothy Connellan, Superintendent of Schools, and Mrs. Karen Smith, Assistant Superintendent (*left at 7:00 p.m.*).

MOTION: by Mrs. Clark, seconded by Mr. Derynoski:

“Move to add School Safety to the Executive Session agenda.”

Motion carried unanimously by voice vote.

MOTION: by Mrs. Clark, seconded by Mr. Derynoski:

“Move to go into Executive Session, excluding the public and the press, for the purpose of discussing Personnel and Student Matters and School Safety, and upon conclusion reconvene to public session.”

Motion carried unanimously by voice vote.

2. EXECUTIVE SESSION TO DISCUSS PERSONNEL AND STUDENT MATTERS AND SCHOOL SAFETY

Mr. Goralski declared the Executive Session ended at 7:06 p.m.

3. CELEBRATION OF EXCELLENCE

At 7:10 p.m., in Celebration of Excellence, the Board members and Mr. Steven Madancy, Principal of J. F. Kennedy Middle School along with Ms. Elizabeth Sterner, the school's Stock Market Game Club Advisor, recognized Trevor Francis, Grade 6, who won state

distinction in the SIFMA Foundation's InvestWrite essay competition with McGraw Hill Financial. Mr. Goralski presented Trevor with a Certificate of Excellence for being the Connecticut State Winner of the InvestWrite Stock Market Competition.

The Board members and Mr. Tom Horanzy, Southington High School Art Department Chair, honored the following Southington High School art students who won juried awards in the prestigious Connecticut Scholastics Art Awards program: Shelby Thurston – Gold Key Award, Skye Farago - Silver Key Award and Honorable Mention, Sarah Kaufmann – Silver Key Award, Allie Abacherli, Jocelyn Gregor, and Steven Dorzens – Honorable Mention. Mr. Goralski presented the students with a Certificate of Excellence for their artistic talent.

RECONVENE MEETING ~ REGULAR SESSION

The regular session was reconvened at 7:40 p.m. by Mr. Goralski, Chairperson. Board members present were Mrs. Terri Carmody, Mrs. Colleen Clark, Mr. David Derynoski, Mrs. Patricia Johnson, Mrs. Terry Lombardi, Mrs. Jill Notar-Francesco Mr. Zaya Oshana and Mrs. Patricia Queen.

Present from the administration were Mr. Timothy Connellan, Superintendent of Schools; Mrs. Karen Smith, Assistant Superintendent; Mr. Peter Romano, Director of Operations, and Ms. Margaret Walsh, Director of Pupil Personnel Services.

Student representatives present were Christopher Iverson and Elizabeth Veilleux.

4. PLEDGE OF ALLEGIANCE

The audience recited the Pledge of Allegiance led by Miss Veilleux.

Mr. Goralski called for a moment of silence in honor of Ms. Shirley Marie Rossi, a retired employee of the Southington Public Schools who worked at North Center School and DePaolo Middle School for 35 years.

5. APPROVAL OF MINUTES ~ February 19, 2015

MOTION: by Mr. Derynoski, seconded by Mrs. Carmody:

“Move to approve the regular Board of Education minutes of February 19, 2015, as submitted.”

Motion carried unanimously by voice vote with Mr. Goralski and Mrs. Notar-Francesco abstaining.

6. COMMUNICATIONS

a. Communications from Audience

Deb Maffiolini, 30 Deerbrooke Circle, addressed a concern that she had regarding overcrowding on Southington High School Bus #1. She felt that this was a safety concern, especially if the bus stopped fast, and she asked the Board for some direction on how to

proceed. Mr. Goralski advised her to meet with Mr. Connellan and Mr. Romano to discuss the matter and next steps.

Elizabeth Pace, 13 Rosemont Avenue, lives in the Hatton School district and had a concern about her daughter who will be entering into Kindergarten. She requested that a bus stop be added for the elementary school children in that neighborhood. Mr. Goralski advised her of the steps that need to be taken before the matter comes before the Board of Education members. He told her to contact Mr. Romano who oversees the transportation department at central office.

b. Communication from the Board Members:

Mr. Oshana commented on the Surround Sound performance by the Southington High School Marching Band recently held at the high school. He congratulated them on their amazing presentation and praised the talented musicians.

Mr. Goralski noted that he shared information with Board members that he had received from CAFE.

c. Communication from Administration:

Mr. Connellan reported on the following:

1. School Security and Safety Plans: Mr. Connellan reported that staff received training on March 10, 2015 and at department meetings in order to begin the implementation of the Security and Safety Plans, which was a collaborative effort between the school district, town officials, town police department and fire department. The student orientation on this plan will take place March 10-13, 2015.
2. SchoolNet Implementation: Mr. Connellan reported that the SchoolNet implementation has begun with the core implementation group meeting held earlier this week, which will be followed by weekly meetings with the Pearson Implementation Representative to accomplish specific objectives. The first meeting will be held on Monday, March 16, 2015, regarding curriculum. The Pearson employees have been working with the Central Office Technology Department in cleaning up some of our data.
3. Retirement: Mr. Connellan acknowledged Mrs. Karen Smith's, Assistant Superintendent, upcoming retirement on June 30, 2015, and that he has appreciated her staying on to help with his transition this year. He emphasized the strengths that she brings to the district and questioned how they would replace the institutional knowledge, skill, and passion for the work that she brings to the district.

d. Communications from Student Representatives

Miss Veilleux reported on the following:

- Surround Sound was held recently with an incredible performance by the high school Marching Band.

- The high school Drama Club will be presenting “Urinetown” starting Friday, March 20, 2015 in which she and James Brino will be participating.
- The annual Apple Valley Dodgeball Tournament will be held Thursday, March 19, 2015 with all proceeds going to the Relay for Life Foundation. She noted that the Southington High School student teams have won the past two years.
- The Girls Gymnastic Team won their third State Championship.
- The Robotics Team won the Chairman’s Award at their last competition. She asked Tyler Brenton to speak on it.

Mr. Tyler Brinton stated that he was one of the captains and liaison of the SHS FIRST Robotics Team 195 Cyber Knights. On March 1, 2015, the Robotics Team won the Chairman’s Award at the Waterbury Competition. It is the most prestigious award given by FIRST, more so than winning the competition itself. It recognizes the team that demonstrates the most commitment to spreading passion for STEM learning into the school systems. The team was recognized for its excellent partnerships throughout the community with youth, veterans, other FIRST teams, alumni and sponsors. The judges were impressed with Team 195 Veterans Outreach Programs and the Youth Robotics Teams at Thalberg and Kelley Elementary Schools. This award guarantees Team 195 a spot at the district championship at Worcester Polytechnic Institute (WPI) in Massachusetts where they will compete with other Chairman’s Award winning teams for the New England Chairman’s Award. If they win, they will then progress onto the St. Louis World Championships.

Mr. Iverson reported on the following:

- Mr. Brino had planned to attend tonight’s meeting; however, he was helping the school district at Derynoski Elementary School.
- The high school Junior Prom is March 28, 2015 from 6:30-11:30 p.m. to be held at Aria Banquet Facility in Prospect.
- Engraved bricks, which individual families have paid for, are stacking up at the high school to pave the soon-to-be-dedicated walkway to the football field.
- The Think Tank has agreed to host a Volleyball Tournament at the high school for the Southington Community Services.
- The All-Night Grad Party is in need of support to continue to raise funds to hold this event. Currently, they have \$9,000 raised, and they need \$20,000. Beginning, next week, the senior class will be participating in a Butter Braids fundraiser to help raise money for the Grad Party along with other fundraisers.
- Acting on behalf of James Brino, Mr. Iverson invited Dr. Semmel to the podium and read “*A Statement on the Departure of Dr. Martin Semmel from Southington High School from the Student Representatives to the Board of Education*” that was written by James Brino. Dr. Semmel was presented with a gift of a T-shirt from the student representatives inscribed with “World’s Greatest Principal.”

MOTION: by Mrs. Notar-Francesco, seconded by Mr. Oshana:

“Move to add to the agenda ‘Student Expulsion #2014-2015-05’ as Item 10.d.”

Motion carried unanimously by voice vote.

MOTION: by Mrs. Notar-Francesco, seconded by Mr. Oshana:

“Move to add to the agenda ‘Student Expulsion #2014-2015-06’ as Item 10.e.”

Motion carried unanimously by voice vote.

7. REPORT OF THE SUPERINTENDENT

a. Personnel Report

MOTION: by Mr. Derynoski, seconded by Mrs. Clark:

“Move to approve the Personnel Report, as presented.”

Motion carried unanimously by voice vote.

8. COMMITTEE REPORT

a. Curriculum & Instruction Committee Meeting ~ February 23, 2015

Mrs. Carmody reported that the committee reviewed the Technology and Engineering Program. Mrs. Smith arranged for the committee to visit the classrooms in the Technology and Engineering Department at Southington High School to observe and speak with the students about their projects and future goals. The committee members visited classrooms in automotive, wood manufacturing, metal, engineering, residential construction, and Project-Lead-the-Way. The committee would like to increase enrollment in these classes because manufacturers are stating that they need students with these job skills.

Mr. Derynoski added that this is nothing new because his manufacturing company has taken the initiative to start classes inside his company in association with Tunxis Community College to teach students CNC machining and basic machining skills. He noted that over the next 18 months his company will be looking to hire in excess of 200 machinists, who are not out there to hire and, in addition to an aging workforce, there is a shortage. He pointed out that these are not minimum wage jobs. Mrs. Carmody felt that they have to do a re-education and a re-introduction to promote what is available at the high school as far as job markets.

Mrs. Johnson added she would like to further explore ways that they might be able to integrate interdepartmental classes, such as mathematics, into engineering courses. She felt that this was an administrative issue because they did offer that at one time. She thought that it was important for everyone to realize the relationship between the academic subjects and the hands-on subjects.

Mrs. Queen stated that she spoke to a parent whose child wanted to take the Technical Writing interdisciplinary course that was not offered this year. It qualified as an English class. Mrs. Queen noted that Mr. Justin Mirante gave the committee a packet when they visited the Technology and Engineering courses and that it included a copy of an article that addresses what Mr. Derynoski was talking about. She asked that the article be included with the minutes (*Attachment #1*).

Mrs. Lombardi felt that the feeder pool for these classes should start in the middle schools. She thought that they were in a culture of image and status compared to those students who go to college. She thought that they needed student role models to bring awareness to these fields. Mrs. Lombardi asked if there was a student club at the high school to share these interests. From the audience, Mr. Stranieri stated that there was an ACE Club (Architecture, Construction & Engineering) that was started two years ago and the WISE Program (Women in Science & Engineering).

Mr. Goralski recommended that for this year's Career Engineering Expo that they invite the middle schools with some exhibits geared toward that age group to show diversity of the programs. Mr. Derynoski thought that the best effect would be to have classroom visits two or three times during the course of the year, specifically to the fifth and sixth graders to get to them early and then to the eighth graders to broaden their knowledge of what is also available before they reach high school. Mrs. Queen added that it would be great to market it as a viable elective choice whether a student is going to college or into a technical career. Mr. Goralski felt that the committee should revisit this instead of having this discussion at the Board level.

9. OLD BUSINESS

a. Town Government Communications

Mr. Goralski thanked his colleagues and Mr. Connellan who attended the Board of Finance Budget Workshop on Wednesday night. They are waiting for questions from the Board of Finance in the grid format for the Board of Finance next workshop on Wednesday, March 18, 2015. He noted the following 2015-2016 budget meeting schedule:

- The Board of Finance cancelled the Tuesday, March 17 budget workshop.
- The Board of Finance will vote on the budget on March 25, 2015.
- The Town Council Public Hearing on the budget is April 27, 2015.
- The Town Council vote to adopt the budget is May 11, 2015.
- The Town Council meetings are held in the Municipal Center Public Assembly Room and the Board of Finance meetings are held at Town Hall.

b. Construction Update

Mr. Romano reported that he attended a meeting at the School Facilities Unit at the State Department of Education with a contingent from Newfield Construction, Fletcher Thompson and Mr. Cox. At that meeting, they received approval to go out to bid for the generator and the courtyards. He reported that DePaolo Middle School finished Phase 10 with the furniture delivered last week, and staff and students are now occupying that area. He reported that Kennedy Middle School was a couple of weeks behind; however, they are still on schedule.

10. NEW BUSINESS

a. Job Descriptions – Southington High School Principal and Elementary Principal ~ Second Reading

MOTION: by Mrs. Clark, seconded by Mrs. Carmody:

“Move to approve the job descriptions for the Southington High School Principal and the Elementary Principal positions as recommended by the Policy and Personnel Committee.”

Motioned carried unanimously by voice vote.

b. Draft Video Surveillance Policy ~ First Reading

Mrs. Clark reported that this is the first reading for the Video Surveillance Policy. The Policy Committee was presented a draft policy by legal counsel pertaining to video surveillance throughout the district. The policy complies with state and federal constitutional laws that are relevant to the use of video cameras in the school setting.

Mrs. Johnson pointed out that under Video Surveillance Regulations, Section C “Storage and Security” the first sentence states that “Surveillance video recordings shall be maintained by the district for at least two weeks, after which the ‘tapes’ may be recycled.” It is her understanding that these are not tapes; these are “recordings.” Mrs. Clark agreed that, wherever it states “tapes,” it should be “recordings.”

Mrs. Notar-Francesco questioned if there was discussion around the two-week length of time and making the retention time longer. Mrs. Johnson and Mrs. Clark both stated that there was considerable discussion. Mrs. Smith replied that she conferred with the Board Attorney on that and, in most cases, the surveillance recordings are maintained as long as necessary while an incident is being researched, which should be completed in a two-week period of time. However, if they had a particular reason that they had not completed an investigation and wanted to retain evidence longer, then that would be up to the administration to determine to take that particular recording offline to preserve it. For routine purposes, two-weeks were adequate. Mrs. Notar-Francesco questioned if two weeks was long enough for instances of ongoing bullying. Mrs. Smith replied that would be at the discretion of the school administration given particular patterns of incidents. Mrs. Queen and Mrs. Clark stated that there was a capacity issue, as well, with the available equipment.

Mrs. Lombardi asked why they limited the scope to student behavior because it could be anybody’s behavior. Mrs. Queen thought that they could put a period after school buses and end the sentence, thus eliminating the wording “to aid in monitoring student behavior.” Mrs. Smith replied that they asked that question of the Board Attorney and he stated that implicit within that statement is all behaviors. Mrs. Lombardi asked that it be revisited. Mrs. Smith pointed out that in Section A of the Regulation it addresses parents, staff and others and that they may want to be consistent in the wording.

For clarification, Mr. Goralski stated that the Board Policy is what guides the Regulation and that Mrs. Lombardi was addressing the policy. He would like the committee to follow-up with legal counsel with what Mrs. Queen requested and to end it with a period after buses and let the Regulation spell out the detail. He agreed that the “to aid in monitoring student behavior” could be removed from the Policy which gives them a much broader scope that is detailed later in the Regulations.

From the legal perspective, Mrs. Lombardi questioned where in the Policy it addresses in the event video surveillance includes any personal identification of private information. Mr.

Connellan replied that school officials have the legitimate right to review any and all information. Where that comes into play is when that information might be released to a third party and, in that instance, it would have to be redacted. In that case, you have to refer to the Family Education Rights and Privacy Act.

Mr. Goralski stated in the second reading the committee would need to have a Policy number, Regulation number and Series number in place before it can be voted on.

Mrs. Queen questioned the Regulation, Section A – Video Surveillance Rules, Item #6, regarding “The Superintendent ‘and/or’ designee of the Board” instead of reading “The Superintendent and ‘his/her’ designee.” Mrs. Smith replied that it was language suggested by the Board Attorney. Mr. Connellan stated that sometimes the language can be confusing, and gave an example of collective bargaining where the word “Board” does not necessarily mean the nine elected Board of Education members. He felt that language was often confusing and that in the Regulation it does not necessarily mean the nine Board members.

Mr. Goralski asked the Board members to get any other changes to Mrs. Clark to bring to the next Policy Committee Meeting to be reviewed for the second reading.

c. Dedication of Walkway at Southington High School Presentation

Mrs. Carmody explained that a committee was appointed by Mr. Goralski, comprised of Mrs. Clark, Mrs. Lombardi, Mr. Rob Thomson, Mr. Brian Stranieri, Mr. Michael DeFeo and herself. They were tasked with looking into dedicating a walkway at Southington High School after Dominic D’Angelo.

Mr. Thomson gave a PowerPoint presentation on the proposal to install a walkway in honor of Dominic D’Angelo. He gave an overview on the purpose, objective, and information about Dom D’Angelo, why the walkway should be named “Dom D’Angelo Way,” financial support, and the timeline of events if the proposal was approved.

Mr. Stranieri clarified that the pile of bricks that Mr. Iverson spoke to, within his student representative report, has nothing to do with this project. There is another project for the turf field that a group is working on, and those bricks belong to that project. Mr. Stranieri shared with the Board some drawings that were prepared by the Art Department for the proposed “Dom D’Angelo Way.”

MOTION: by Mrs. Carmody, seconded by Mrs. Clark

“Move to name the walkway adjacent to the Carl M. Small Agricultural, Science and Technology Center, which connects the parking area and the Community Turf Field at Southington High School, in honor of Dominic D’Angelo, to recognize his contributions as a Veteran, Educator, Coach, Athletic Director, Mentor and Community Leader.”

Mr. Derynoski questioned the fundraising activity for this endeavor and asked if there was a goal set for funding. Mr. Thomson replied that there are four light posts and that three people have already committed to pay for three of the four light posts, which is the biggest expense. He noted that the committee has not started any marketing yet. They also have a potential for 900 bricks, in which they would need to sell 100 bricks to breakeven. By word of

mouth, he felt that they would be able to do that quickly just with alumni. He planned to create an Alumni Association starting with football, and then branch out to other sports. He has been working with Eric Swallow, Athletic Director, on this. Mrs. Queen liked the Alumni Association idea and felt that it could help with college admissions, job opportunities, and networking.

Mr. Stranieri added that they were very confident with the money that they need to make this come to fruition and, if they have excess monies left over, they discussed other things that they could do, such as a scholarship. They already have many people who have come forward and offered to make donations.

Mr. Goralski pointed out that, as specified in the Board Policy in naming a facility in honor of an individual, it required a two-thirds Board vote, with six of the nine members voting in favor of it.

ROLL CALL VOTE – YES: Mrs. Carmody, Mrs. Clark, Mr. Derynoski, Mrs. Lombardi, Mrs. Notar-Francesco, Mr. Oshana, Mrs. Queen, Mr. Goralski. NO – Mrs. Johnson. **Motioned carried with eight in favor and one opposed.**

Mrs. Carmody thanked the committee, as well as Mr. Michael Forgione who was in the audience, for their support. The committee hoped to have this ready for the first home game of the season next year.

Mrs. Lombardi stressed that this goes beyond sports because Mr. D'Angelo was a community leader and veteran. She thought it would be nice to reach out to the veterans and include them in the dedication of the walkway. Mr. Thomson stated that they have a military recognition at one game every year and they could incorporate that. Mr. Goralski proposed that the committee remain intact until the completion of the project and the planning of the dedication, so the Board could remain connected through the end of this project.

d. Student Expulsion #2014-2015-05:

MOTION: by Mrs. Notar-Francesco, seconded by Mr. Derynoski:

“Move to expel student #2014-2015-05 as stipulated by the Superintendent of Schools.”

Motion carried unanimously by voice vote.

e. Student Expulsion #2014-2015-06:

MOTION: by Mrs. Notar-Francesco, seconded by Mr. Derynoski:

“Move to expel student #2014-2015-06 as stipulated by the Superintendent of Schools.”

Motion carried unanimously by voice vote.

11. ADJOURNMENT

MOTION: by Mrs. Notar-Francesco, seconded by Mr. Derynoski:

“Move to adjourn.”

Motion carried unanimously by voice vote.


The meeting adjourned at 8:45 p.m.

Respectfully submitted,
Linda Blanchard
Recording Secretary

THE COMEBACK KID

Career and
Technical
Education
programs meet
student needs
and industry
demands

By Brenda Alvarez



Sandra Rhee, a 2009 graduate of California's Esperanza High School, and Walt Walters, engineering and manufacturing instructor, operate a lathe, used to shape wood, metal, or other material via a rotating drive.

Five years ago, Sandra Rhee was a freshman at Esperanza High School in Anaheim, Calif. As she walked through the school to turn in a paper, the AP student took a turn around the theater and passed an open door. What she saw that day would change her forever.

"I saw a group of kids building robots," says the 19-year-old, who is working toward a material science and engineering degree at the University of California Los Angeles. "I was so intrigued that I went inside, talked to the group, and got connected to Mr. Walt."

Walt Walters (before his retirement in July) was the engineering and manufacturing instructor. In short, he was the shop teacher.

The word "shop" can easily invoke memories of an auto body garage, with young men in

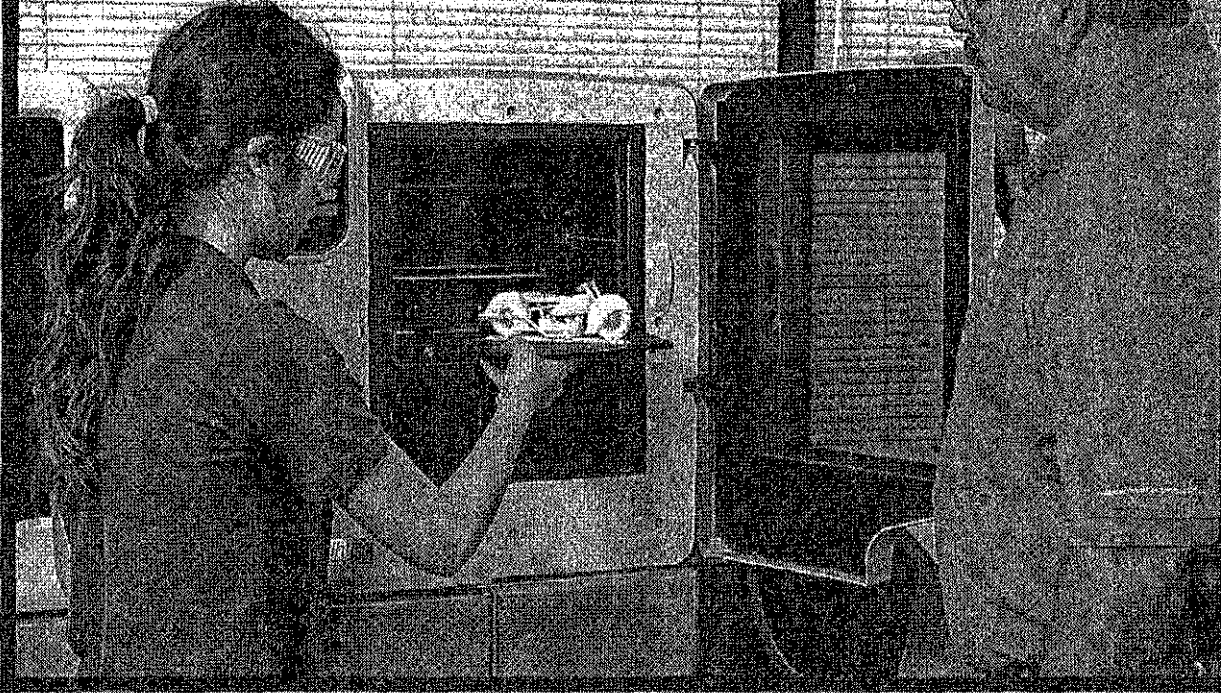
greasy jumpsuits hovering over the dirty engine of a 1950's era car. At one time, shop classes were synonymous with specific trades: wood, metal, and mechanics. Shop was often connected to students who were good with their hands or struggling academically. The classes were a one-way track to a job, not a college education, creating a stigma that's been hard to break.

"For the last 25 years, shop was viewed as a dirty old word," says Walters, who is also chair of the NEA Vocational, Career, and Technical Educators' Caucus. The group works to change this perception by informing parents and school counselors about the various paths that can lead to college or career.

"Post-secondary training is what we have to get across to them," says the 38-year veteran

THE EQUIPMENT

The Anaheim high school houses a 3-D printer used for making models in little time. Rhee calls this a "crazy" piece of equipment.



teacher, emphasizing that this could mean a college degree or a trade certification. The idea is to provide students with options.

The strategy appears to be working. Walters believes that vocational and CTE programs are coming back from the brink of extinction. He attributes the resurrection to growing industry sectors, such as manufacturing, which is expected to add more than 350,000 jobs to the U.S. economy by 2015, according to the Manufacturers Alliance for Productivity and Innovation.

This growth, paired with the need for highly skilled laborers, means CTE programs have more appeal.

Not Your Father's Woodworking Class

Career and technical programs are more advanced today than in years past, with high-end shop classes offered by high schools across the U.S. At Esperanza, students work with a water-jet cutting machine—a \$75,000 piece

of equipment typically reserved for colleges, universities, and professional settings—which offers accuracy, speed, and no alteration in material properties. The school also has a 3-D printer—Rhee calls it a "crazy" piece of equipment—which allows students to produce models in little time.

Today's shop classes also include a heavy dose of academics, which employers' want, as backed by a 2011 report by the Harvard Graduate School of Education. *Pathways to Prosperity* revealed that a high number of U.S. employers complained about young adults—specifically, high school students—lacking the skills needed to succeed in the 21st century, especially in oral and written communication, critical thinking, and professionalism.

The shop classes at Esperanza offer A through G approved courses, which are required for admission to the University of California and the California State University systems. This means students must apply core

subject standards, such as English language arts, whenever possible.

Walter's students spent a year working on a fully functioning race car. They wrote and presented a design report, detailing cost, manufacturing process, engine design, and energy efficiency. Critical thinking comes into play when designs don't turn out as planned. In one instance, the race car turned right instead of left. Students were quick to reassess and determine that the control arms were inverted.

To help students boost their professionalism, Walters stresses the importance of "soft skills," like timeliness, efficiency, and a strong work ethic—practices that are as valuable as rigor, especially for young people who have been hit hardest by the Great Recession.

"Mr. Walt's class was equally intense as my AP classes," Rhee says, adding that he was a tough teacher.

The toughness encouraged her to earn an industry accreditation by obtaining SolidWorks certification before graduating high school. The software program provides mechanical CAD, design validation, and data management skills, which employers seek. "People are impressed when I say I work with [it]," she says.

Although Rhee chose to attend a four-year university, other students picked up internships or jobs at nearby companies, earning \$20 to \$30 an hour. Whether they lead students to higher education classrooms, or to the workplace, these types of opportunities grow from existing relationships between shop teachers and employers. In turn, the opportunities contribute to the success of CTE programs because they illustrate the value of real-world experiences.

And for many employers, when it's time to consider applicants, experience is often the

missing element. "We're finding that many of today's engineers are theory with no practical application," Walters says, referring to college graduates entering the field. "They can design, but cannot build." His students can do both.

Industry Input

Esperanza is among many U.S. schools that hope to become more relevant to students and responsive to local economies and national trends. To help, employers and educators are partnering on advisory committees, which are required by the Carl D. Perkins Act—federal legislation that provides support and funding for CTE programs at the state and local levels.

Joe Byrne started his own manufacturing business at the age of 21. By the time he retired, nearly 20 years later, the company was worth millions of dollars. Byrne understands business and he knows how it's supposed to work. When Walters recruited him eight years ago to sit on an advisory committee, he immediately saw some issues.

"There is a disconnect between education and real-world experience in terms of what we need as employers," he says, adding that high school and college graduates act as if they are doing the employer a favor just by showing up to work. "We need them to go back to basics," starting with work ethics. Another issue he saw with new employees was that they didn't understand current technology and industry standards.

The input from Byrne and other committee members helps educators keep CTE programs up to date by offering support and advice to schools, as well as help students manage employer expectations. Committees can also help plan outlines, course structure, or content. Additionally, they provide real-world workplace

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—SANDRA RHEE,
UNIVERSITY OF
CALIFORNIA LOS ANGELES
MATERIAL SCIENCE AND
ENGINEERING STUDENT



Rhee and Walters talk shop over a CAD drafting table, which is used to teach critical engineering skills.

examples and help students understand employers' expectations.

Walters says advisory committees have helped him change or implement new curriculum based on industry need.

The Perkins Act is up for reauthorization, and NEA has offered Congress six guiding principals to consider, including the creation of a strong pipeline of quality, credentialed, and experienced educators. But the big challenge, says Walters is "not enough teachers." Moreover, many of the teacher preparation programs for CTE programs have dwindled.

As the legislation for teacher recruitment and retention is renewed, CTE instructors must receive appropriate training in pedagogical practices and mentoring by experienced teachers. Provisions should also ensure that more CTE teachers are involved in decision-making activities.

Despite the challenges, Walters is optimistic about the survival of CTE programs. He says industry sectors are speaking louder than before about the skillsets that are needed from employees and the education community and legislators are finally listening.

"We didn't know what the industry needed and they didn't know how we worked—and that's where I saw the opening to be an advocate, expand my connections, and help create awareness," emphasizing that eight years ago Esperanza's advisory committee had only 10 members. Today, there are 40 people from the business community.

And if Rhee is any indication of the benefits these programs offer, the U.S. has a lot to gain. The programs may be the catalyst that provides students with viable options to college or career, while helping to address industry sector growth and workforce shortages.

"I didn't know I wanted to go into engineering," says Rhee, "but after I joined the engineering and manufacturing academy I found it was a new challenge for me, not just learning the academics, but working with my hands, too."

Now, the UCLA student is studying the science and chemistry of materials, composites, and plastics. Her personal interest is in renewable energy, but she can go into other fields that produce lighter weaponry for the military or manufacture gorilla glass, which is the glass used to cover smartphones and tablets.

Had it not been for this shop class that occurred every Thursday for three hours after school, Rhee says she would have simply majored in biology or chemistry—great fields, but subjects that were not for her.

Says Rhee: "I am a problem solver [and] a hands-on learner. I am the type of person who would choose robots and mechanics over lab work or chemical analysis. I enjoy the process of creating something—the brainstorming, the design process, the manufacturing...I have found my place in how I want to impact the world: helping develop economical alternative energy sources," says the student who found her passion just by going through an open door. ☼

"For the last 25 years, shop was viewed as a dirty old word. ... Post-secondary training is what we have to get across to students."

—WALT WALTERS,
RETIRED ENGINEERING
AND MANUFACTURING
INSTRUCTOR



At California's Esperanza High School, students spend a year building a fully functioning race car, using skills and techniques they learned in shop classes and applying core academic concepts.