

VOCATIONAL EDUCATION TODAY: IT'S NOT OLD-SCHOOL ANYMORE

SUMMARY

In response to a complaint concerning vocational education programs in San Diego County High Schools, the 2016/2017 San Diego County Grand Jury (Grand Jury) looked at the current state of vocational education, also known as Career Technical Education (CTE). The complainant was concerned that many high school students do not go on to college and are not prepared to enter the job market upon graduation or after dropping out of school.

The Grand Jury visited seven high schools and observed their CTE programs and pathways in action. Six of the seven high schools had most, if not all, of their students enrolled in a CTE pathway that would equip them with marketable job-entry skills. The other high school, while having only about 30 percent of its students enrolled in one of its pathways, had an outstanding auto program that provided students with excellent job skills. The Grand Jury recommends that the San Diego County Office of Education:

- be utilized as much as possible by any San Diego County high school having a CTE program that is being funded by California Career Pathways Trust (CCPT) funds.
- continue to seek funding sources for the CTE programs within the county.
- continue to reach out to all high school districts to establish and/or strengthen the CTE program within their high schools.

INTRODUCTION

Most American high schools currently exist for the college-bound student. By design, the State of California curriculum demands all students meet college entrance requirements. However, many jobs and careers in the United States don't require a university degree. That makes the traditional high school college preparatory program unnecessarily narrow because most of its students will not be going on to college. By 2010, only 33 percent of all 25- to 29-year-olds had a bachelor's degree.¹

“Numerous studies quantify the overall percentage of high school dropouts in America at about 30 percent with urban school districts at 40 percent and African-American and Hispanic students at 50 percent.”² This has led to a “national tragedy to 1.7 million high school dropouts in jail in America.”³ Most of these dropouts are African-American and Hispanic.

The Grand Jury investigated Vocational Education/CTE as an alternative to the typical college prep curriculum.

¹ James C. Wilson Ed.D. and Kathy Green Ph.D., *Disposable Youth: Education or Incarceration* (Durham, CT: Strategic Book Publishing, 2010), 15.

² *Ibid*, 45.

³ *Ibid*, 9-10.

PROCEDURE

The Grand Jury visited several high schools in the county that have CTE programs. These CTE programs were observed by the Grand Jury in order to compare them to an established blueprint. The schools visited were:

- Kearny High School Complex
- Clairemont High School
- Monte Vista High School
- San Diego High School
- Escondido High School
- San Pasqual High School
- Orange Glen High School

Additionally, personnel from the San Diego County Office of Education (SDCOE) were interviewed.

DISCUSSION

Vocational Education originally became a viable alternative to the traditional school curriculum in the early 1900s. Its programs focused typically on job skills and were intended for students who struggled with academics or were just not seen as “college material.”

In 1967, the Regional Occupational Programs (ROP) were created. They offered high school students—and some adults—career education, advanced training, and courses to upgrade job skills. The ROPs were designed by law to offer courses that must meet the current labor market demand. This was done by working with businesses, industry, and public agencies to annually update the curricula content to stay current with the latest local industrial needs for skilled workers.

In the early 1990s, vocational education evolved into its current incarnation of Career and Technical Education, or CTE, as a result of the federal School-to-Work Opportunities Act of 1994. The act led to an integration of academic and vocational courses. This “blending” of courses from both disciplines, academic and vocational, resulted in a multi-year sequential program that provides a “pathway” to postsecondary education and careers. In 2002, California legislators passed two Bills (AB-1412 and SB-1934), which mandated the development of state career/tech curriculum standards and frameworks. The standards emphasize both academic and technical skills. By integrating the curriculum, the schools allow students to keep their options open upon graduation. Students can decide among moving directly into the workforce, gaining more-advanced skills at a technical school or community college, or finding a job in their trade/field of interest that would help put them through college. Students not sure of what they would like to do upon graduation would still be prepared to either attend college or find employment using their learned skills.

Today many high school students participate in a formal course of study that is related to a specific career/tech educational “pathway.” In 2004, the California Department of Education reported that 42 percent of high school students were enrolled in some sort of career/tech

pathway.⁴ This is accomplished by the students belonging to a Career Academy within their high school, also known as a “school within a school.” The purpose of Career Academies is to provide students with an employable skill, along with preparing them for college, while increasing the graduation rate to 90 percent or more, thereby decreasing crime and incarceration rates.

Experts agree Career Academies offer a valuable alternative to the traditional high school in America by providing their graduates with the necessary skills to earn a good livelihood in the real world. “The Success of Career Academies has been a reduction of the high school dropout rate through reengaging students at risk through connecting academic courses to a career theme in small learning communities.”⁵

The Career Academy, through its utilization of business speakers, mentors, job shadows, and internships, combined with a career theme, brings a real-work environment to its students. This real-work connection prepares students with the required skills to acquire employment at graduation and is achieved through a career-themed curriculum that the students can buy into. By being properly motivated, students become increasingly inspired about school because they can see the relevance of their academic studies to the real world. Studies show they tend to stay in school and graduate, thereby reducing the dropout rate.

“There are three essential elements that can transform the American high school—smallness or personalization, the career of real life aspect, and teachers working together as a team.”⁶

Key features of the Career Academy

1) Career Theme: A four-year sequence of a CTE (includes connections with industry professionals, mentorships, job shadows, internships, etc.).

2) Small Learning Community: Consists of cohorts of Career Academy students who become cohesive as they move through the academy classes together for the majority of their four-year education. Visible teacher collaboration and the close, physical proximity of classrooms are also vital in establishing the cohesiveness and sense of community among the students.

3) Integrated Academics: Applies a career focus to academic curriculum through project-based learning activities; engages students to learn academic core subjects.⁷

According to Linda Darling-Hammond—a national leader who espouses small-learning communities—the features of a small-learning community include Personalization (meaningful relationships that are developed between teacher and student), Authentic Curriculum (learning tasks that apply to real-world contexts), and Adaptive Pedagogy (how students learn).⁸

⁴ “The Evolution of Career and Technical Education in California,” EdSource, June 2005, <https://edsources.org/wp-content/publications/CareerTech05.pdf>.

⁵ James C. Wilson Ed.D. and Kathy Green Ph.D, *Disposable Youth: Education or Incarceration*, (Durham, CT: Strategic Book Publishers, 2010), 22.

⁶ Ibid, 40.

⁷ Ibid, 16-17.

⁸ Ibid, 20-21.

Two other “school-to-work” instructional programs differ slightly in their approach in educating the students for college/career readiness. The first of these is Tech Prep programs, which combine two or more years of high school education with two years of post-secondary education. The Tech Prep focus is to prepare students for higher-wage employment and/or post-secondary education. The second of these is general school-to-work opportunities such as specialized trade schools. These schools are designed specifically for graduated students who want to enhance their job skills in a specific business/industry.

The Grand Jury looked specifically at Career Academies with a lesser comparison to Tech Prep programs in various high schools in San Diego County. The following are the high schools that the Grand Jury visited, along with our observations.

Kearny High Educational Complex: This high school consists of four smaller schools within a school, with each “smaller” school having its own career theme or pathway. The four smaller schools are the School of Engineering, Innovation, & Design; the School of College Connections; the School of Digital Media & Design; and the School of Science Connections & Technology. The Grand Jury visited and observed the School of Engineering, Innovation, & Design. The Grand Jury learned that the Kearny High Educational Complex is overseen by one principal, and each of the four smaller schools are run by other administrators. Each of the smaller schools has an enrollment between 300 and 400 students.

At the time of the Grand Jury’s visit, the School of Engineering, Innovation, & Design had an enrollment of 329 students. The students follow a sequential four-year program consisting of engineering and architectural courses. They have the same teachers and cohort of students all four years. School officials say this element leads to a sense of belonging and fosters a closeness/cohesion among the staff and students. There appeared to be considerable collaboration among the students as well as between the teachers and students. This school utilized *project-based learning*, which integrates a career theme with core academic courses. The Grand Jury was told that through this process, the students can hopefully see the relevance and connection of academic subjects to real-world employment. The only shortcoming that this school’s CTE program appears to have is the lack of student internships with local industries, even though industry partnerships began about 14 years ago.

The Grand Jury believes that Kearny High Educational Complex has an excellent CTE program in place. It meets the main criteria of what a Career Academy is all about, and it offers exemplary career choices for *all* its students.

Clairemont High School: This high school has a program very similar to the Kearny High School complex. It too has four smaller schools, each consisting of a Linked Learning pathway (Clairemont’s name for a Career Academy pathway) and overseen by one principal. The four smaller schools are the Academy of Business, the Academy of Engineering Design, the Academy of Health and Medical Sciences, and the Academy of Information Technology. The Grand Jury was able to observe the Academy of Information Technology and the Academy of Engineering Design. Each smaller school consists of about 280 students, a core interdisciplinary teacher team, and project-based learning projects relating to a specific pathway. A four-year

sequenced curriculum integrates career tech with core academics, and classes are blocked together and in close proximity to each other. Finally, there are industry partners available for advisory boards, mentorships, job shadows, student internships, field trips, guest speakers and project advisors. The list of industry partners for each Linked Learning pathway is extensive. Each pathway has a designated lead teacher who provides leadership for the pathway, as well as a designated counselor who, Grand Jurors were told, fosters cohesiveness within the pathway. Clairemont High School is partnered with the Moxie Foundation, a consortium of philanthropic and corporate sponsors who provide funding for the Linked Learning Pathway Project.

This school appears to meet all the necessary requirements of a Career Academy. Like Kearny High School, it offers viable career choices for all its students. The Grand Jury believes that Clairemont High School's CTE program represents the future of not only vocational education but also of secondary education in general.

Monte Vista High School: This high school has four CTE pathways contained within a traditional high school structure. Currently, slightly less than 30 percent of the students are enrolled within one of the four CTE pathways, which means the majority of students are still following the traditional high school format. The four CTE pathways are Automotive Transportation, Video Game Design, Manufacturing Technology, and Cosmetology. The Grand Jury was able to view two of these pathways, Automotive Transportation and Manufacturing Technology. The Automotive Transportation pathway boasts the only high school auto program in the state of California that includes a certified smog station. This feature is a big plus in helping the students in this pathway acquire an automotive job with one of the automotive dealerships/repair shops in the county upon graduation.

The Automotive Transportation pathway also has a working partnership with at least one auto dealership in the county which allows Monte Vista High School to receive used and/or damaged autos for the students to work on. The four pathway programs are four-year sequential curricula but lack several criteria of a true Career Academy. Besides the obvious structure of breaking the main high school into smaller schools, only the Automotive Transportation and the Video Design pathways are linked together where the students are in cohorts that have academic courses integrated into their curriculum. Despite these shortcomings, this high school does have several partnerships which offer internships to the students. However, more work appears to be needed in order to get a majority of the students into one of the CTE pathways.

San Diego High School: This school has three smaller schools: the School of Business and Leadership, the School of International Studies, and the School of Science and Technology. Each smaller school has its own vice principal, with all three vice principals answering to one principal. Each smaller school offers several different pathways that the students can choose from. All students belong to one of the smaller schools. School officials say that by offering several pathway options within each school, the number of students in each pathway becomes extremely manageable and reinforces the small community concept. Each pathway is a four-year sequence of integrated academic and CTE courses. Project-Based Learning projects are incorporated into the curriculum for each pathway. Each school has numerous partnerships with various local businesses. These partnerships lead to field trips, mentorships, job-shadowing, guest speakers, and student internships.

The few specifics of a model Career Academy that appear to be missing at this high school are that each school is not self-contained on the campus, meaning they don't have their own building(s) to house their students. Also absent is a core of teachers who teach students in the same pathway for all four years. Because this core concept of teachers is missing from each school, students are able to mix with other students from a different pathway. This mixing could pose a problem to the cohesiveness and collaboration of the students in a particular pathway.

San Diego High School, by enrolling every student into one of its career pathways, is making sure that all of its students receive viable skills that can be utilized in the workplace and/or college campus upon their graduation.

Escondido High, San Pasqual High, and Orange Glen High Schools: These high schools are all part of the Escondido Union High School District. They are grouped together here because their vocational education programs are all patterned after the same model. The model is basically stand-alone pathways that teach students the necessary basic skills of a particular industry/job. This allows many students the ability to enter the job market immediately after graduating from high school.

At **Escondido High School**, the Grand Jury observed the Agricultural CTE Program. It consists of Animal Husbandry (cattle, sheep, chickens, turkeys and pigs spread over a six-acre site), and Farming, especially Horticulture (Flowers). Currently, 350 students are enrolled in 11 sections taught by two instructors. The program is community-based, which means students interact with the public every Wednesday and Saturday at a local farmers market, go to the San Diego County Fair in Del Mar each summer, and have partnerships with some local nurseries and feed stores and the Future Farmers of America. The school obtains funding from both private businesses and the community; however, mentorships are few and hard to obtain, and internships are difficult to use. They pose a hardship to the students because of the travel involved in getting to the business site. There does appear to be collaboration among the students, especially between the older and younger students in the Animal Husbandry and the Horticulture programs.

At **San Pasqual High School**, the Grand Jury observed the Agricultural and Floral programs. This site was much smaller in size than at Escondido High School: one acre that contained pigs, a small orchard, and a large floral area. The program had an enrollment of 320 students at the time of the Grand Jury's visit, taught by two full-time and one part-time instructors. It has a partnership with a local water company to produce potable water from waste water.

At **Orange Glen High School**, the Grand Jury observed the Culinary Arts program. This is a four-year sequential program with a two-year matriculation with Mesa College. This CTE program covers basic and advanced culinary arts, food science, international cuisine, baking and pastry, and restaurant management. The program has a partnership with a restaurant in Escondido.

The pathways are not integrated with any of the core academic subjects, and the high school is not broken down into smaller schools. Students freely mix with other students who are not in the same pathway, and they do not have the same classmates or teachers for four years; hence, the

cohesiveness and collaboration of a small group is missing. On the flip side, the pathway classes are small (25-35 students/class), the pathways are four-year sequential programs, and there is project-based learning in the pathways. The CTE programs are partnered with local industry, allowing the students opportunities for job-shadowing, internships, and mentoring from local industry contacts.

Even though the CTE programs at all three of these Escondido Unified High School District high schools are stand-alone, the Grand Jury believes they are invaluable to the students enrolled in them because of the workforce skills they provide.

San Diego County Office of Education: The Grand Jury also interviewed personnel from SDCOE regarding its role in helping to further the advancement of the Career Technical Education program in the high school districts within the county. Currently, SDCOE is administrating a \$13.1 million grant from the California Career Pathways Trust (CCPT) to 17 (out of 20) high school districts to help fund their CTE programs. The grant was awarded in January 2015 and runs through June 2019. The CTE programs at the 17 school districts focus on three industry sectors (out of 15) that the State of California has identified as where the current and future jobs are.

The three industry sectors, Advanced Manufacturing, Clean Energy, and Information Communication Technology, were chosen with respect to the available careers in San Diego County. Each sector has several pathways associated with it that lead to different careers. SDCOE aids the participating school districts by providing an ePortal, an online tool for teachers that allows them to “shop” for guest speakers, factory tours, mentorships, internships, etc., for their CTE pathways. More than 100 companies are listed on the ePortal, and SDCOE officials say they are constantly trying to add more. They accomplish this by partnering with the One San Diego 100 Initiative, a consortium of 100 San Diego businesses, and by doing presentations to various chambers of commerce within the county.

SDCOE also utilizes intermediaries like Junior Achievement, San Diego Workforce, San Diego and East County Economic Development Corporations, and Cleantech. These intermediaries recruit additional businesses to become active in the SDCOE CTE program by becoming part of the ePortal list and provide additional funding from businesses. SDCOE also holds seminars for the participating CCPT high schools in how to develop work-based learning projects, how to integrate curriculum for the academic core subjects within the pathway, and how to better equip teachers for getting their students into a pathway.

One of the main concerns SDCOE noted was that not all students at a high school were enrolled in a pathway. Sometimes it was due to the school district not having a fully developed pathway program due to budget constraints or some other condition; other times it was because the school counselors were offering individual vocational education courses to their students and not the pathway. Educating the counselors and/or teachers to better convince their students of the benefits of a pathway was also of major importance to SDCOE.

Finally, SDCOE has to deal with restrictive funding from the state because many teachers lack the appropriate credentials for teaching CTE programs. SDCOE must also find a way to fund the CTE programs at the county high schools once the CCPT grant monies run out in two years. The CTE programs at the various high schools in the county offer a clear alternative to the traditional high school education that focuses on preparing students for college entrance. This is a necessary choice as a majority of high school students either do not go on to college or don't complete a four-year college course of study. Without this alternative choice, many students would be left without any employable job skills.

One observation noted by the Grand Jury was the diversity of the CTE programs within the various high school districts. While the CTE programs at the different schools were laudable, there were shortcomings that could be addressed. One option is to utilize SDCOE and its various programs in order to help strengthen a district's CTE programs in implementing viable career pathways. By identifying key industry sectors in the county, and designing CTE programs to help students fill those sectors upon graduation, the Grand Jury believes that SDCOE is an invaluable resource for these high school districts and their students.

FACTS AND FINDINGS

Fact: 17 high school districts in the county, out of 20, are receiving funds from the California Career Pathways Trust (CCPT) under a grant that was awarded in January 2015 for use in their CTE Pathway Programs.

Fact: According to SDCOE, all high schools in the county have some capacity for CTE programs at their site.

Fact: SDCOE is working with high school districts to make the CTE program the standard throughout the county.

Finding 01: All county high school districts have some capacity for having a successful CTE program, and funding for such a program is vital. The SDCOE offers help for both items.

Fact: Not all high schools in the county have the *same* CTE program and pathways. Some are more extensive than others due to their larger budgets.

Fact: Some schools have work-based learning projects connected with their CTE programs. These projects are configured based on the various expenses associated with them within each school district.

Finding 02: The larger a high school district's funding for a CTE program, the more comprehensive it is.

Fact: SDCOE offers a Project-based Learning training seminar.

Fact: According to SDCOE, there are not enough qualified teachers within the county to prevent the State of California from withholding funds from several district's CTE programs.

Fact: Funding must be continually sought from various sources which include state and federal grants, public and private companies, and foundations.

Finding 03: Funding is critical for continuing the CTE programs in the county's high schools.

Fact: SDCOE assists county high school CTE programs by having ongoing training seminars, assisting teachers in getting CTE-credentialed, offering online resources through its ePortal, and seeking additional partnerships and funding with local businesses.

Finding 04: SDCOE is an invaluable source for helping the county's high school districts in implementing and funding their CTE programs.

RECOMMENDATIONS

The 2016/2017 San Diego County Grand Jury recommends that the San Diego County Office of Education (SDCOE):

- 17-58:** Continue its work in finding additional sources of funding for the county's various CTE programs.
- 17-59:** Continue to reach out to all school districts in the county to support efforts to establish or expand their CTE programs.
- 17-60:** Encourage those high school districts in the county that are currently not participating in SDCOE's CTE program to reconsider their position and seek SDCOE's help and resources to do so.

REQUIREMENTS AND INSTRUCTIONS

The California Penal Code §933(c) requires any public agency which the Grand Jury has reviewed, and about which it has issued a final report, to comment to the Presiding Judge of the Superior Court on the findings and recommendations pertaining to matters under the control of the agency. Such comment shall be made *no later than 90 days* after the Grand Jury publishes its report (filed with the Clerk of the Court); except that in the case of a report containing findings and recommendations pertaining to a department or agency headed by an elected County official (e.g. District Attorney, Sheriff, etc.), such comment shall be made *within 60 days* to the Presiding Judge with an information copy sent to the Board of Supervisors.

Furthermore, California Penal Code §933.05(a), (b), (c), details, as follows, the manner in which such comment(s) are to be made:

- (a) As to each grand jury finding, the responding person or entity shall indicate one of the following:
 - (1) The respondent agrees with the finding
 - (2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.
- (b) As to each grand jury recommendation, the responding person or entity shall report one of the following actions:

- (1) The recommendation has been implemented, with a summary regarding the implemented action.
 - (2) The recommendation has not yet been implemented, but will be implemented in the future, with a time frame for implementation.
 - (3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a time frame for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This time frame shall not exceed six months from the date of publication of the grand jury report.
 - (4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.
- (c) If a finding or recommendation of the grand jury addresses budgetary or personnel matters of a county agency or department headed by an elected officer, both the agency or department head and the Board of Supervisors shall respond if requested by the grand jury, but the response of the Board of Supervisors shall address only those budgetary or personnel matters over which it has some decision making authority. The response of the elected agency or department head shall address all aspects of the findings or recommendations affecting his or her agency or department.

Comments to the Presiding Judge of the Superior Court in compliance with the Penal Code §933.05 are required from the:

Responding Agency	Recommendations	Date
San Diego County Office of Education	17-58 through 17-60	9/5/17