

A BLUEPRINT FOR SURVEYING EDUCATION

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By Stephen M. Gordon, PSM

Over the past two months I have been working on two education initiatives for surveying. The first is a high school program known by the acronym C.H.O.I.C.E. The second is an apprentice program for survey technicians. This month I share with you my vision for how these promising new programs could be implemented and tied together to solve the statewide staffing crunch in surveying.

THE PIECES OF THE PUZZLE

High School C.H.O.I.C.E. Programs

The C.H.O.I.C.E. program is a model for industry backed technical education in high school. Last month Michelle Chapman, Marilyn Evers and I met with representatives of the Okaloosa County School District who have a model program with tracks such as pre-engineering, pre-architecture, the construction trades and information technology. The programs must have a nationally recognized industry certification and are set up in partnership with the local Workforce Development Boards. This is a key fit with the Certified Survey Technician program.

The connection with the Workforce Development Boards is critical. This relationship puts industry in control of the curriculum and recognizes industry as the consumer of students that graduate from these programs.

The C.H.O.I.C.E. program in Okaloosa County takes students for three hours of instruction each day during the students' junior and senior years in high school. This is a significant amount of instruction and has produced outstanding results in the existing C.H.O.I.C.E tracks in Okaloosa County.

Survey Technician Apprenticeship

The survey apprenticeship program is being proposed by an education firm in Palm Beach County and would consist of two years of classroom and on-the-job training. The apprenticeship will be recognized by the State and Federal governments. The firm managing the program will hire local surveyors to instruct classroom courses and will have a full time employee monitoring and evaluating the on-the-job portion of the course.

Each apprentice must be sponsored by an employer and the employer will receive progress reports on the apprentice. This program will also be tied to the CST and should produce CST Level 2 technicians.

The firm proposing the apprenticeship program is trying to establish programs in southeast Florida and the Treasure Coast, with expansion plans across the state based on industry support.

Community College Surveying Programs

As you know there are a number of community college surveying programs around the state at schools such as Palm Beach Community College, Miami-Dade College and Valencia Community College. Some of these programs have been quite successful while others have come close to extinction. The good news is that viable programs will be welcomed by the community college administrations, as they fulfill the mission of these institutions to support workforce in their communities.

University of Florida Geomatics Program

Our Geomatics program is the top of the pyramid for our education strategy. Each of the other programs should become feeders for our professional degree program.

HOW IT ALL FITS TOGETHER

I believe that all of the pieces of the education puzzle complement one another. The foundation is the C.H.O.I.C.E program in high school. The key advantages of this program include:

1. The program gets students at an early age.

2. The program offers unified education for professional and technical track individuals while offering multiple “exits” upon completion of the program—directly into the workforce as a CST certified technician or on to licensure through the community college and university systems.
3. The curriculum is driven by the profession.
4. All graduates will have demonstrated knowledge through the CST certification.

The next piece of the puzzle is the apprenticeship program which aids us in qualifying a technical workforce for the profession. Its key benefits include:

1. A proven method of training through apprenticeship.
2. Two years of classroom and on-the-job training.
3. The curriculum is driven by the profession.
4. All graduates will have demonstrated knowledge through the CST certification.
5. It provides a more structured course of study than the existing two-year surveying degrees.
6. The cost is approximately 50% less than the existing two-year survey degree programs.

The role of our university Geomatics program remains the same, but is the beneficiary of additional students, fed by the C.H.O.I.C.E. programs. The central component is the community college system. Community colleges would serve two roles.

First, they can offer professional track C.H.O.I.C.E. graduates a path to our Geomatics program in the form of a “2 + 2 + 2” plan. In this plan a student would study surveying during their last two years in high school, then attend a community college for two years to get an Associate of Arts degree and finally transfer to our Geomatics program to complete the final two years of a Bachelor’s degree.

Second, the community colleges can provide the classroom side of the apprenticeship program and offer college credit to those students.

CHALLENGES TO SUCCESS

The first and most difficult challenge to successfully implementing this approach to education is finding instructors to teach the classes. In the C.H.O.I.C.E. programs the instructors will be full-time employees of the various school districts, with the correspondingly low teacher pay. It’s probably unrealistic to believe that many licensed surveyors would be willing to make a full-time move into education.

To address the issue of instructors, an institute could be created at our Geomatics program to train existing high school teachers how to teach the surveying curriculum. Such an institute would likely operate during the summer with instruction provided by the Geomatics faculty. There are many details to work out, but the concept has been positively received by the Geomatics faculty and the School of Forestry administration.

The next challenge is funding. We will undoubtedly need legislative funding to make this all happen. We are working on a proposal with the Geomatics faculty and the School of Forestry to get surveying and mapping designated a critical needs profession by the legislature. The proposal will request funding for the Geomatics program and may help accomplish part of the education plan outlined here.

HOW TO GET STARTED

This education plan can only be implemented on the local level. You will need to work through your chapter to start this in your area. Following are the steps I believe are necessary to get started:

1. Contact your local workforce development board and school district to discuss implementing a C.H.O.I.C.E. program in your area.
2. Contact Dwight Foster at Florida Training Services, Inc. at 877-898-7246 and express your interest in a surveying apprenticeship program.
3. Contact your local community college to help facilitate the “2+2+2” process and the apprenticeship classroom training.
4. Educate your elected representatives on the critical need for a trained workforce for surveying and mapping.

The Palm Beach Chapter is beginning to investigate how these ideas can be implemented and I encourage other chapters to begin down this path as well. The Administrative Office will work as a clearinghouse for information and best practices as things progress. We have a great opportunity to help ourselves; it’s time to stop talking and start doing.