
Volume 2, Issue 5 May 27, 2010
steve.buser@Lamar.edu

Director: Steve Buser 409-880-7639
801 Pearl Street, Beaumont, TX 77701

Lamar University Downtown Campus --lower floor of the Beaumont downtown library

SETX P16 Board : <http://setxp16.org/wp/about/>

Our web site: <http://setxp16.org/>

Roundtables

We had more discussions on roundtables this month. We had a great visit with Dr. Johnny Brown, superintendent with Port Arthur ISD and his staff.. We were impressed on how fast he brought the conversation to deliverables and how the program will benefit PAISD. We agreed, of course, that is the main purpose of the Roundtables --- to talk on what the schools need most so that the SETX P16 Council can focus its program of work on those resources. Barriers and opportunities. Break down one, build up the other.

Career Exploration Page needs your ideas

If you haven't visited our Career Exploration page yet --

<http://setxp16.org/wp/resources2/achieve-texas-career-exploration-and-planning/achieve-texas-career-research-materials-for-counselors/> We invite you to do so. We are trying to fill it with information useful to career seekers. We invite your suggestions and comments. sbuser@setxP16.org

Stats and confusion -- we learn a lesson (again)

We re-learned a valuable lesson recently about statistics and truth. Just when you think you understand the statistics, they jump out and bite you.

Let's set up the scenario.

The Bureau of Labor Statistics (BLS – the good guys) posts lots of data on careers and jobs. One statistic it publishes is the education or training that is common for a given occupation. We all know that the preferred education for doctors is -- medical school and residency. Lawyers? Law school. Other occupations are not so clear: people come to them in different ways.

When you trying to put this kind of information into a table with lots of other information, though, you have to trim down the stats and decide what you want to include most.

For some purposes, the BLS takes the ten columns of the educational attainment table and summarizes it into one column. It's shortened to "preferred education or training" for each occupation.

Take construction managers, for instance. For construction managers the preferred occupation is listed as “bachelors degree.” That’s pretty good info for students just entering the workforce. The BLS reports on another section of its website: *“Employers increasingly are hiring construction managers with a bachelor's degree in a construction-related field, although it is also possible for construction workers to become construction managers after many years of experience. Construction managers must understand contracts, plans, specifications, and regulations. Certification, although not required, is increasingly important.”*

That is, by the way, the reason they created the Reese Construction Management Program at Lamar University - a good example of education packaged to meet this industry’s needs.

It’s easy to see how a student can get confused, though: the industry has a lot of construction managers who learned the ropes on the job. Over 60 percent of the 820 construction managers in Southeast Texas (by BLS count, 2006) don’t have the bachelors degree that the new university grads will have.

The simple truth is those grads are going to find much of the existing on-the-job-trained workforce will be leaving in the next decade – the baby boomers are moving quickly toward retirement.

The P-16 director learns a valuable lesson

Sometimes, though, the statistics work out even poorer than that. Take process operators or ptechs. They fall under BLS’s title of **Chemical Plant and System Operators**. In the BLS quick tables, the “preferred education” for ptechs is long-term on-the-job training. Really? Then why are LIT, Lamar State College Orange, Lamar State College Port Arthur and many of the high schools training process operators for Associates Degrees?

We were at the Process Operators Advisory Board meeting at Lamar State College -- Orange recently and showed off some new data on our web site. It included the number employed in each occupation in Southeast Texas along with wages and preferred training or education.

The head of the Gulf Coast Process Technology Alliance (GCPTA) keyed in on the data for ptechs. (the table listed ptech “preferred education” as long-term on-the-job training) He disagreed “It is almost a sure thing that you need an Associates Degree to get a job in this field.”

So why does BLS say OTJ is the preferred training. The BLS looks at the workers now in the job and what training they have (HS, Associate Degree, Bachelors, etc) and in some tables lists the one with the highest percentage. In Southeast Texas, for instance 42 percent of the process operators have just a HS diploma or GED. Thirty percent have some college and 10.5 percent have an associates degree.

That is changing rapidly. Baby boomers are retiring in this occupation, too. Plants can still hire good ptechs with long-term OJT, especially when another plant closes. However, the supply of those “near-retirement workers” is dwindling. If you are graduating from school now, an Associates Degree is the badge you need for one of the local ptech jobs (BLS estimated 35 jobs opening a year in 2006) in the Golden Triangle.

We deleted the “preferred education” field from the table on our web site. We are thinking about other ways to show students the education they need. We have to find a better way to make the statistics true to the facts in the field.

Lesson learned.

The Gulf Oil Spill

Teachers try to find real world problems to make classrooms more relevant. The BP Horizon Deepwater Gulf of Mexico oil spill is, IMHO, one of the best resources we have had to see science, engineering, environmental protection, government, and business in action.

A speaker I heard last year opined that there had been no real breakthroughs for sometime in the oil drilling business. After the speech, I suggested he spend some time at the Offshore Technology Show (each May in Houston) and on an offshore platform – he will find no other industry that is so cutting edge – no other business that sucks in so much technology as fast as it can be invented.

Nonetheless, suddenly it all went wrong out in the Gulf in April.... We (you and me) are now getting to sit on our computers at home and are almost virtual present in the war room as strategies are devised. We see live pictures of a disaster as it happens --a mechanical failure that no human can get near to fix. It has to all be done by technology.

We get to see engineers and geologist racing against the clock to save the environment by solving problems that have never before been solved. BP has received thousands of ideas on how to solve the problem. Many of those solutions, I have to think, are from industry experts all over the globe.

This is science in real time. This is science that has not been purged and is not sanitized for science and math books. Nature is perverse. Man’s ability to solve problems is sporadic. The environmental clock is ticking loudly. (Would have made great bestseller, no?)

We posted on the <http://setxP16.org> website several links to info on the spill, the clean up, the Kill Shot, the next three Hope-They-Work plans (if the Kill Shot is a dud), the agencies that are monitoring the spill, and the information flows that ocean science, meteorology and a dozen other disciplines have at their disposal.

I can see dozens of ways of using this in a classroom. There are gazoodles (excuse the use of a scientific term) of sites out there with scientific, geo-political, environmental, and economic discussions of the event.

The timing was bad. I grant you that. Not many students want to concentrate on anything to do with studying, as the school year draws to a close.

The first reports that the Top Kill might be working are filtering across Twitter.

Want to follow it all? I made up this Twitter list <http://twitter.com/#/list/sbuser/oil-spill> – various opines and info on the subject --

Looks like we will have all summer to think about this and understand what we can learn from it.

Questions about financial aid for college?

Four suggestions –

1. **Call the financial aid office** at the college or university. Here are a few
 - a. **Lamar University** -- (409) 880-7011 or financialaid@lamar.edu on the web : <http://dept.lamar.edu/financialaid/>
 - b. **Lamar State College Orange** (409) 882-3317 email: finaid@lsco.edu http://www.lsco.edu/Students/Students_Financial_Aid.htm
 - c. **Lamar State College Port Arthur** (409) 984-6200 email Diane.Hargett@lamarpa.edu <http://www.lamarpa.edu/?url=/dept/fam/index.html>
 - d. **Lamar Institute of Technology** (409) 880-8321 lisa.schroeder@lit.edu <http://www.lit.edu/depts/finaid/default.aspx>
2. **Pick up your phone** -1-888-311-8881 -- the Texas hotline, number
3. CollegeForAllTexans.com is the state's web site for college information (including financial aid) that is always available.
4. ApplyTexas.org is the site for applying to any Texas public college or university -- and even to apply to several of them with one push of the "Apply " button.

TEST Dates

The College board reminds us by email of these upcoming test dates

Test Name	Scheduled Test Date	Regular Registration Deadline	Late Registration Deadline
SAT and Subject Tests	Saturday, Jun 5, 2010	Thursday, Apr 29, 2010	Thursday, May 13, 2010

ACT	Saturday, Jun 12, 2010	Friday, May 7, 2010	Friday, May 21, 2010
------------	---------------------------	------------------------	-------------------------

If you haven't yet take the tests or registered for these dates you are obviously too late. Why not go to <http://www.aie.org/AIEmail/> and register to receive email reminders of test dates and registration deadlines?

Once a geek always a geek

Call me a geek, but the Ozone Alerts released for the area for Thursday and Friday seem to be another chance to see science in action.

You can get real-time (close to real time at least) looks at the data and can see how they match up against the forecast. You also get to see several ways in which scientists, meteorologists and data visualization specialist portray the raw numbers into visuals that help you understand what it all means

AirNow is the government web site with three different tabs on it's map: The forecast, the Current Air Quality Index and an animation of the forecast, hour by hour :

http://www.airnow.gov/index.cfm?action=airnow.local_state&stateid=45&tab=0

The Texas Commission on Environmental Quality has an "updated hourly" site with the ozone levels from various air monitoring stations: http://www.tceq.state.tx.us/cgi-bin/compliance/monops/select_curlev.pl

Weather.gov has another three-tab map with the daily view, a loop of the recent projection and an animated forecast and point data. Put you city and state into the box on the side of the map to get hour by hour forecasts – some of the raw data that makes up the map: <http://www.weather.gov/aq/sectors/southplainsPoint.php#tabs>

Back to the TCEQ, it has a page that explains all of this : http://www.tceq.state.tx.us/cgi-bin/compliance/monops/ozone_actionday.pl

There are lots of links on these pages to more information.

Connected Classroom (<http://setxp16.org/wp/connected-classroom/>)

A couple of new resources (600 links now) that have been added to our Connected Classroom site:

Forvo.com -- this should have been around when we were studying French. It is a site where people pronounce words and phrases. Want to know how to pronounce joie de vivre? A native French speaker demonstrates how. Many words have more than one person pronouncing the word. Just think, the French folks can now hear how to speak English words with an English accent and an American accent. Maybe even with a Texas drawl. How do you pronounce "bar?" That's not the way I say it.

Gapminder.com -- Data visualization on steroids. Forget those boring Excel graphs. These graphs present data in new ways – and give you control. Please set a time before you start. Otherwise you may forget about the time.

Of note --

Here's a couple of phrases we think you are going hearing more of. Google them: "Digitally Rich learning" , "Untethered learning"

I have always thought that we ought to use the phrase "On-time learning." -- recycle the metaphor. It's what industry needs – how to be trained to perform a task that happens very occasionally and is moderately complex to very complex. A worker needs all the mechanical background, tool savvy and process knowledge. He also needs to know all that special knowledge to accomplish the task efficiently and safely. Example? Read on....

A number of years ago, the electric windows on my car were refusing to go back up. I decided to fix them. I dismantled one door, pulled out the motor, and bought a \$100-or-so replacement. Having reinstalled it and certified it was working, I went after door number two. When I went into the parts shop, the counter guy recognized me and suggested that instead of a new motor I probably only wanted the little plastic part that wears out. WHAT? He showed me – I bought it for about \$7 (which is by the way about \$100 a lb. for plastic – a story for another day), installed it and got it working. Both worked well. But one worked about \$93 better.

The Infinity Project -your opportunity

Since we are being geeky today anyway -- here's a real opportunity for teachers to get trained and equipped to teach math, engineering and computer applications in an exciting set of lessons. The Infinity Project --started here in Texas but now nationwide.

A TEA releases says professional development scholarships are currently available to public and private middle school and high school teachers in Texas to help them expose students to the math and science fundamentals behind electrical, mechanical, civil, environmental, and biomedical engineering.

Educators learn to teach students to apply concepts through fun, hands-on design projects like building a digital music player, robotic rover, or prosthetic limb. Educators receive week-long classroom instruction, cutting-edge curricular materials, and a technology kit with industry standard software - a \$1,500 value.

To take advantage of this exciting opportunity to bring engineering education to your students, complete the online application <http://ow.ly/1QKbK> . Check out some of the other information on that page to understand the program. For more information, contact Dianna McAtee, Director of Academic Relations, at ipmail@infinity-project.org <<mailto:ipmail@infinity-project.org>> or 214-768-1920 today!

Spread the word

This newsletter was sent by the Southeast Texas P-16 Council to educators, school board members, elected officials, businesses and others interested in education in Southeast Texas.

Our mailing address is P.O. Box 10008, Beaumont, TX 77710.

If you received this email by mistake, please email info@setxP16.org and ask to unsubscribe. Or call 409-880-7639.

If you know of someone who did not get the newsletter, forward them a copy. They can subscribe by emailing us at info@setxP16.org with "Subscribe" and their contact information in the email.

Anyone can sign up for our newsletter online at <http://setxp16.org/NewsletterSignUp.php>

Want to be part?

We are currently seeking volunteers to work on the various P-16 program if you are interested call us at 409-880-7639 or email steve.buser@lamar.edu
