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2015 Training Session for Administrators August 13, 2015 **Transcript Implementing Career Clusters: High-Skill, High-Demand, High-Wage Careers**

(00:00)

(George Willcox speaking)

Good afternoon. Welcome to the Virginia Department of Education's Office of Career and Technical Education video streaming professional development session for 2015-2016. I'm George Willcox, administrator for planning, administration, and accountability in the office of CTE.

Today's video will focus on implementing career clusters in high-skill, high-demand, and high-wage sectors. Special emphasis will be placed on the new application for establishing Career and Technical Education courses. Additionally, one of the 23 Governor's STEM Academies will be featured.

(00:53)

Joining me today, for the first section of the professional development session, is Annie Rorem, Policy Associate at the Weldon Cooper Center at the University of Virginia. Welcome, Annie. We look forward to your presentation.

(01:12)

(Annie Rorem speaking)

Thank you, George, for welcoming me to today's video streaming session on the topic of Implementing Career Clusters: High-Skill, High-Demand, High-Wage Careers. I will be speaking on three different segments of this video streaming session. I will start with answering the question, "What data are available and what is the best way to use the available data in understanding which careers are high-skill, high-demand, and high-wage?" Then, I'll be speaking with Toinette Outland and Erin Nobile about how we can engage community partners in preparing students for high-skill, high-demand, and high-wage careers. Finally, I'll be talking about the new application for CTE courses and how you can use these available data to apply for a new course in your division.

(02:07)

In an effort to answer the question, "What data are available, and what is the best way to use them?" I want to share with you today four different resources that you might be interested in. We'll start with CTE Trail Blazers, the Web site maintained by the Weldon Cooper Center for Public Service.

When you go to ctetrailblazers.org/labor-market-data, you'll see that you can download information specific to your local workforce investment area (LWIA). We use projections produced by Virginia Employment Commission, or VEC. For your benefit, we arrange these data by cluster and pathway. The projections give information on occupations in the Commonwealth and in local investment areas.

(02:59)

Information provided includes the estimated number of jobs in a given occupation, the projected number of jobs, the annual number of job openings due to both occupation growth and the need to replace workers who leave, wage data, and predominant education level.

If you're interested in finding out particular information about an occupation in your part of the state, first, determine your local workforce investment area. You can use the link that we provide. Next, download the appropriate Excel workbook. Finally, navigate to the appropriate sheet and look for the occupation you seek. Each workbook has four sheets. You will most likely care most about Virginia Clusters Duplicated and Local Workforce Investment Area Clusters Duplicated. Why do we call these sheets "duplicated"? This is because some occupations may fit more than one cluster or pathway. We will speak in greater detail about these Excel workbooks in a later section of this video recording.

(04:12)

Another resource you may be interested in using, no matter what occupations are available in your area, is the set of Top 15 Largest Employers documents available at the URL at the bottom of slide four. No matter what occupations are available in your area, it's often helpful to know what organizations in your locality employ the most people. These organizations are likely going to be interested in hiring qualified applicants on an on-going basis. So, they are excellent resources for divisions in terms of building partnerships.

Again, navigate to the URL at the bottom of slide four to find the list of these available documents.

(04:59)

Each of the top 15 largest employers documents gives information on the top 15 largest employers, not only in the local workforce investment area, but also in the specific locality that you have identified. You will see the names of the employers, the number of employees the employer employs, and the industry in which the employer falls.

(05:23)

Another source of information about your locality comes from the "Yes Virginia" Web site. When you navigate to yesvirginia.com, the "Tools & Resources" page will allow you to connect to a variety of pages giving relevant information about your part of the state. The "Community Profiles" page allows you to download a document revealing critical data on your locality. While these profiles are designed to show off localities to prospective firms looking for their next location, you can use them to get accurate and recent data on overall employment.

You can also find information about labor-force age, race, and gender breakdowns; commuting times; and major employers, among other data points. These profiles also offer summaries of recent closings, reductions, or lay-offs, knowledge of which will allow you to stay current with local employment patterns.

(06:30)

Finally, you may want an “at-a-glance” view of overall industry trends across the Commonwealth. For this, the Bureau of Labor Statistics offers an “Economy at a Glance” table, giving recent and comparative employment statistics for the Commonwealth. Not only are you able to see month-to-month employment numbers by industry, or Virginia as a whole, but you can also compare these figures to where they were one year ago. An understanding of the changes in industry over time is helpful for assessing whether your division’s course offerings prepare students for current labor market trends.

(07:13)

All members of the CTE team can and should make use of these labor market data. Administrators play a big role in making sure that these data are used and understood by all members of the team. Administrators should confirm that the division offers the appropriate preparation and course work for students, and they can connect with local community members to create opportunities for students in industries that are showing growth trends.

For instance, administrators can help school divisions engage local employers in conversations to determine not only their hiring needs, but also the specific skills that they need and want.

Local CTE advisory committees also have an important role to play in using the data appropriately. Local CTE advisory committees are often composed of people understanding the trends in the community, as well as in the state and the nation, from a data-driven perspective. Members of these committees can help divisions connect students with appropriate advisors and experiences. Members of these committees can also encourage professional development partnerships between teachers and local employers in those fields. Or, they can create ways for students to showcase their abilities and interests to local businesses.

(08:35)

Teachers, of course, have a vital role to play in making sure that the data on labor-force needs are used appropriately and to the right effect. Teachers can use local examples as a model for potential careers, and they can introduce students to these data as they’re planning ahead for these careers. Teachers can and should consider both the skills and future education necessary for the students in their classes as far as the local labor-market trends indicate they should be prepared. Also, teachers can encourage students to research careers in their field, using these data so that students are familiar with the potential labor market.

(09:17)

Finally, school counselors can and should use the data to assist students in their search and preparation for careers. Additionally, career and school counselors can encourage students to

research careers in the field using these data, and they can make efforts to connect with local businesses in promising career fields.

All members of the secondary CTE team can and should be familiar with labor-force data so that students can be prepared for the high-demand, high-skill, and high-wage careers they are planning ahead for.

(09:59)

All of this information about labor-market data is certainly coming from the right place: the desire to see students succeed. But what does it look like in practice? We have here with us a few individuals from Heritage High School Governor's STEM Academy in Newport News who are dedicated to guiding students into high-skill, high-demand, and high-wage careers.

(10:22)

By developing strong relationships with local employers and Thomas Nelson Community College, Heritage High School Governor's STEM Academy of preparing its students for the careers that they seek. Here's a little bit of information from when the academy was founded back in 2012.

(10:44)

(Video Narration)

The best way to prepare our high school students for successful employment is to shape classroom instruction around the high-demand jobs of the future, and with an expected two-million available jobs in the fields of science, technology, engineering, and math by 2014, Virginia is increasing their STEM education. Recently, Heritage High School became the 17th Governor's STEM Academy in the Commonwealth. Board members and school administrators from Newport News Public Schools joined businesses, public officials, and other guests in a celebration ceremony at Heritage High.

(11:24)

Principal Michael Nichols and STEM Academy Program Administrator Toinette Outland greeted the guests and outlined the need for such an academy in Newport News, a vision that Newport News Ship Building agrees with since they have formed a close partnership with Heritage and have planted a Newport News Ship Building Career Pathways office right in the school.

The honored guests were then able to witness the STEM Academy in action. In many Heritage classrooms, students and teachers are already heavily engaged in these 21st century skills. Guests were able to interact with the students and ask questions. For many of the business partners, this was their first introduction to their future employees.

(12:06)

As students enroll in the STEM Academy, they will gain the knowledge and skills needed to succeed in today's technology-rich work places. Through advanced and honors classes, as well as unique courses, including Engineering Drawing, Digital Visualization, and Modeling &

Simulation, students will learn how to work in teams and communicate effectively to apply their education. Academy students will also participate in internships, earn industry certifications, receive college credit through dual enrollment, and complete over 200 hours of community service.

But the goal isn't just to prepare students for their future jobs, but to increase their joy of learning *now*. The result will be a workforce of well-rounded citizens and a higher quality of living for the students *and* our community.

(13:03)

(Annie Rorem speaking)

Welcome to Erin Nobile, career coach at Thomas Nelson Community College, and Toinette Outland, program administrator at Heritage High School Governor's STEM Academy. Thank you both for being here with me.

Erin, can you tell me about your role and the services you offer to students?

(Erin Nobile speaking)

As a career coach, I'm employed by Thomas Nelson Community College, and I serve the students at Heritage High School. Essentially, I'm a one-on-one resource for those students who need additional help with post-secondary planning. I provide a wide range of services and I really like to start off with helping them determine a career that would best suit their goals, their interests, their skills, and their values. And also then, going forward, we try to figure out what that path will look like for them—how to obtain that career, whether it's education, a two-year or four-year degree, or if it's workforce-development training or an apprenticeship.

(14:10)

(Annie Rorem speaking)

Wonderful—that sounds like something all high school students across the nation could use. Do you use labor-force data at all as you do that?

(Erin Nobile speaking) I sure do. The Virginia Education Wizard is a great resource for all career coaches in Virginia. It outlines labor-force data and gives students an opportunity to explore different careers so that they understand not only what is required of them in a specific career, but also what salary they can expect to earn, whether that career is in-demand in our local area, and what other careers would be related to that if that specific career isn't in demand.

(14:50)

(Annie Rorem Speaking)

Wonderful! Maybe you could show us around Virginia Education Wizard?

(Erin Nobile speaking)

Sure, I'd love to. On the Virginia Education Wizard, students can take assessments to help identify their interests, their skills, and their values. Once they complete those assessments,

they'll get a list of careers that are related to them. It's broken up into educational levels: less than two-year degree, two-year degree, four-year degree, and beyond. It actually lists all of the careers that are in-demand first. Students can click on the careers they might be interested in to learn more about them.

So, we have here on my profile Healthcare Social Workers, so I'm going to click on that and we will learn more about that career.

(15:41)

So, if we click here on Healthcare Social Workers, we see that it's in-demand and it gives us a brief description of what that career looks like. It tells us which career cluster this career is in, and it also gives us community and four-year colleges that may offer degree programs that will help a student obtain this career.

As you scroll down, you will see an outline of the median salary for different job titles in this career. You can also click to see the starting salary, which is something I do almost every time so that my students understand what they can expect to make right out of college.

On the side here, we can see that this career is actually in-demand, and that there are actually four more positions needed in our local area. So, that tells students that there is opportunity for them in this field—that if they go and obtain the education and training that they need for this career, they're likely to have job openings once they're ready to get started in the career.

(16:45)

As you scroll down you'll see different opportunities of where students can work in this field, what skills and work attributes are required, there's a section for FAQ's about the career, as well as alternative career options in case this is something they're interested in, but they also want to think a little more openly about it and look at different alternatives as well.

(17:10)

(Annie Rorem speaking)

What are some techniques that you, as a career coach, use for making sure that students are aware of these important labor-market data, such as wages or job demand?

(Erin Nobile speaking)

Looking back into the Virginia Education Wizard, we will explore careers that way first and foremost. It's very eye-opening. More often than not, students go through their academic career thinking "*This* is what I want to be," or, maybe they don't have any idea what that is. Then, they see, "Oh, ok, maybe not. Maybe there's no demand for that job that I've wanted all my life." Or maybe, "That salary isn't what I was expecting." So, it can be quite eye-opening for them. And, for those who are dead-set on a specific career, and know that that's what they want to do, it can be reassuring as well, if they find what they're looking for in that career.

(18:03)

(Annie Rorem speaking)

Do you find that it helps any students who are not quite sure what career they are interested in?

(Erin Nobile)

Yes, it does. They can see, “Well, if I go to Thomas Nelson Community College for a two-year degree in a career studies program, I can get my education in two years and I can leave with a viable career that is going to sustain my lifestyle.” So, for those students that are unsure, there are a lot of opportunities that can help them decide where they might be best suited for after high school.

(18:33)

(Annie Rorem speaking)

That’s wonderful. Do you play an active role in the Heritage High “STEMinar” as well?

(Erin Nobile speaking)

I do. I support that course by providing lessons on interview skills, resumé writing, I do career assessments for that class as well—whatever they may need to help with that project that they have to do at the end of the year.

(18:55)

(Annie Rorem speaking)

Finally, what kinds of responses do you get from students as they’re going through these career options in general? I know you mentioned some students find out that they can go to Thomas Nelson Community College for a two-year program and are probably quite pleased by that. Do you have any other ranges of responses?

(Erin Nobile speaking)

The whole gamut, pretty much! Essentially, I think students feel more secure when they understand and have all of the information. When they can make an informed decision and create a realistic plan for their post-secondary options, they leave with a lot more confidence.

(19:32)

(Annie Rorem speaking)

Toinette, Heritage High School has some innovative and inspiring programs to make sure students are career and college ready. Can you tell us about a few of these, and how you use labor-force information in their implementation?

(Toinette Outland speaking)

Yes, we have several programs. One that comes to mind would be our Newport News Ship Building Career Pathways Internship Program. That program is where we take about 40 of our

seniors that are in the Governor's STEM Academy, and they complete a 15-hour internship at Newport News Ship Building in the areas of IT, Engineering and Electronics, as well as Computer Systems Technology, and Architectural Design. We use the information from Newport News Ship Building and their job outlook to prepare them for those different careers that are available in our STEM fields.

(20:19)

(Ann Rorem speaking)

That sounds really wonderful. Do you offer support for them as they apply for that internship opportunity?

(Toinette Outland speaking)

Yes, we have an orientation program, and students are able to select what career pathway they would like to go into and job shadow at Newport News Ship Building. In addition, we also have a spring break Make it Work Career Pathways Internship Program that students are able to complete during their spring break.

They spend about four days at different businesses, whether it be Jefferson Labs, Newport News Ship Building, the Ferguson Center, Bayport Credit Union—we have about 20 different businesses that participate in that.

(21:01)

(Annie Rorem speaking)

That sounds like a wonderful array of opportunities for students. How do you identify the community partners that will offer internships for your students?

(Toinette Outland speaking)

We have a Governor's STEM Academy Advisory Board of about 20 different business partners, and we reach out to them with our needs, and they're able to provide support and resources for our students in those different areas.

(21:24)

(Annie Rorem speaking)

So, what are some techniques that you use to make sure that students are aware of important labor-market data, such as wages or job demand?

(Toinette Outland speaking)

We make sure that all of our teachers incorporate that in all of their STEM classes, as well as in their academic classes. Our students also participate in town hall meetings, where I review that data with the students, looking at the different job outlooks and skill requirements and educational requirements in the different STEM career fields.

Also, all of our students, as a culminating activity, in our Governor's STEM Academy, participate in a class called "STEMinar," where they're able to research and make a final presentation

where they have to use data to talk about the specific career fields they want to go into and that job outlook.

(22:11)

(Annie Rorem speaking)

So, “STEMinar,” a little play on words there—I like that! To whom do they present this information when they’ve finished collecting it?

(Toinette Outland speaking)

They’re able to invite their parents. They also present in front of administrators, teachers, and their peers, as well as myself, which I’m sure can be kind of intimidating.

(Annie Rorem speaking)

I can imagine, but it must be helpful for them to learn about the jobs themselves. What kinds of reactions do you get from students when they learn about the labor-market information that they’ve researched?

(Toinette Outland speaking)

We have good and bad reactions. Sometimes they are able to look at the different skills and decide whether they want to continue to pursue that particular career field. They can look at the salary and say “Yes, I want to go into it,” or, “No, I don’t want to go into it—I thought they made a little more.” So, it’s good for the students to be able to dig in and look at the data themselves to determine if that’s a field that they truly want to go into.

(23:03)

(Annie Rorem speaking)

Absolutely. I’m sure it’s helpful for both the students researching and the students listening—to learn about the wide variety of careers and career data points. That way, they can make educated decisions about how they want to pursue their interests. Thank you so much, Toinette.

(Toinette Outland speaking)

You’re welcome.

(23:23)

(Annie Rorem speaking)

One particular reason to get comfortable using work-force data is the new CTE Course Application, which requires occupational projections and other data for jobs related to the new course, or courses, you would like to offer.

The new course application is available at the URL at the top of slide 15, and instructions are available at the URL at the bottom of slide 15. The application has several sections. Part H, Section One, asks you to fill in a table with six columns in which you need to identify labor-

market information for specific occupations that you believe are supported by the course that you are applying for. I will walk you through one example of how to fill in this table.

(24:20)

Say that you are from Johnston County, in Local Workforce Investment Area XIII, and you are interested in offering Building Trades II. The description for Building Trades II includes key words like masonry, carpentry, electricity, and plumbing.

You can find information on the occupations related to these keywords from the spreadsheet for Local Workforce Investment Area XIII, Bay Consortium, which will be available at ctetrailblazers.org/labor-market-data. When you download this Excel workbook from ctetrailblazers.org/labor-market-data, you will see four available sheets. You will start by taking a look at the sheet entitled LWIA Clusters Duplicated.

You may be interested in occupations such as carpenters, cement masons, concrete finishers, electricians, and pipe layers, because these occupations are related to the course you're interested in offering: Building Trades II. We'll focus on the "carpenters" career. Notice that we believe that there will be a 25-percent increase in the number of available positions for carpenters between 2012 and 2022. This information, 25%, goes in Column 2 for Part H, Section One: Most recent ten-year projection percent for rate of employment growth. Notice you are filling out the row for which you've identified "carpenter" as the occupation and "construction" as the pathway.

(26:24)

The 25-percent occupation growth corresponds to 296 new jobs for carpenters in your LWIA. This is the number you will put in Column Three: Most recent ten-year projection for number of new jobs (LWIA). In order to fill out Column Four, Most recent ten-year projection percent for rate of employment growth across the Commonwealth, you're going to go to the sheet entitled VA Clusters Duplicated and find this information for carpenters.

We see that there is a 24-percent anticipated increase in the number of jobs available for carpenters across the Commonwealth between 2012 and 2022. This is the information you will put in Column Four of this table.

Column Five asks you for the most recent 10-year projection percent for rate of employment growth at the national level. There is a link for you to follow in that column where "National" is hyperlinked. That will bring you to a Bureau of Labor Statistics page, and you can search for the key word "carpenter" there. You will see a projected employment change rate in the column that I have identified with a red outline in this table. We see that there is an anticipated 24.2-percent growth rate for carpenters in the nation, overall, between 2012 and 2022. This is the information you will put in Column Five.

(28:13)

We also care about the percent rate of change across all occupations in your LWIA, so that we can understand if the occupations you've identified are growing faster or slower than employment as a whole. In LWIA XIII, we see a 17-percent rate of growth anticipated between 2012 and 2022. This is the information you will put in Column Six of the table.

Finally, we are interested in knowing the ten-year projection percent or rate of growth for the identified pathway, construction, across the entire Commonwealth. Again, you'll visit the sheet VA Clusters Duplicated and find the pathway rate of growth across the entire Commonwealth. We anticipate a 20-percent rate of growth in construction between 2012 and 2022.

(29:15)

Once you have filled out this entire row for one occupation that you believe is supported by the course for which you are applying, we encourage you to complete the table for as many occupations as apply. Consider occupations outside of the immediate pathway by asking yourself the following: What skills does this course build? How might this course motivate students to pursue particular careers? In my example, students interested mechanical or civil engineering might benefit from Building Trades II. These occupations are not found in the construction pathway but may be important to consider.

(30:00)

Part H, Section Two, Questions a-d reference the table that you completed in Section One. H.2.a asks you to compare the projected rate of growth for the occupation you've identified with the growth of all occupations in your LWIA. Specifically, for a carpenter, we know that there's an anticipated 25-percent rate of growth, and for *all* occupations, a 17-percent rate of growth. The difference between those two is 8%, so we believe that carpenters will experience a faster rate of growth than all occupations in the LWIA.

(30:40)

Question b asks you to compare the projected rate of growth for the occupation you've identified with the overall pathway in the Commonwealth. Again, we know that carpenters in LWIA XIII are going to grow by an anticipated 25%. We're comparing that with the construction pathway, overall, in the Commonwealth, which is anticipated to grow at a rate of 24%. These are very similar. There's only a one-percent difference between the two.

Questions c and d ask you to reference the table in Part H, Section One by considering the number of jobs that each of the occupation is anticipated to grow by, as well the growth rates at the state and national levels.

(31:29)

Finally, Section H, Part Two, Question e asks you to find another source of information to support your claim that this course will be valuable to your division. Consider the following: Announcements of new industry openings, newspaper articles, or other reliable examples of information about your community.

There is a lot of available information on high-skill, high-demand, and high-wage careers available to you. Use these data, in combination with good community relations, to make sure that your division is preparing students for the careers that they will be pursuing in the years to come. We believe that good labor-market data is the key to good CTE education. Thank you very much for taking the time to be with me here today. I'll have George take it over for the session evaluation. Thanks again.

(32:25)

(George Willcox speaking)

Annie, Toinette, and Erin, thank you very much for participating in today's professional development session. It is exciting to see the important role data contributes to successful career and technical education programs. We certainly wish you a successful 2015-2016 school year.

Please take a few moments to complete the evaluation of this session at <https://www.surveymonkey.com/r/76R29DT>. We value your input and will use your comments as part of our efforts to continually improve these professional development programs. Our next professional development session will be held on September 17. The topic is "Beginning of Year Financial Information Reimbursement and Reporting." It will be led by Terry Dougherty, CTE Grants Administrator. Again, thank you for participating in today's session, and we wish you a successful school year.